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About the Authors

Christopher Hobbs, L.Ac., is a fourth-generation herbalist and botanist — his grandmother and great-grandmother were professional herbalists, and his father and great-uncle were professors of botany — with over 30 years experience with herbs. He studied acupuncture, Chinese herbs, and Chinese medicine at Michael and Lesley Tierra’s East-West Acupuncture Program, Five Branches Institute of Traditional Medicine in Santa Cruz, and The Hangzhou School of Traditional Chinese Medicine in Hangzhou, China, earning his license in acupuncture in 1995. In 1989, he founded the American School of Herbalism in Santa Cruz, California (with Michael Tierra, O.M.D., L.Ac.) to educate professional and lay persons in the safe use of medicinal plants. He is currently the director of the Christopher Hobbs Clinic of Phytotherapy and Acupuncture, as a licensed primary health care provider in California.

In 1985, Christopher co-founded the American Herbalists Guild, the only national U.S. organization for professional herbalists, and along with David Winston, is a senior member on the admissions committee. As a consultant to the herb and natural foods industry, he was vice president and a board of trustee member of the American Herbal Products Association (AHPA) for seven years, has formulated many nationally-sold products, and is a member of a number of top companies. In 1984, he started a line of herbal products now known as Rainbow Light Herbal Systems. Christopher has acted as director of herbal formulations for Rainbow Light since 1984. He currently consults for the pharmaceutical and natural products industry and is a major contributor to the successful herbal Web site, www.allherb.com. Christopher is a member of the Society for Medicinal Plants, the Society for Economic Botany, and the Society for Ethnobiology. He has lectured at Yale and Stanford Medical Schools; is a regular teacher at the University of California, Santa Cruz; and has taught at numerous schools, conventions, and symposia throughout the United States,
Canada, Australia, and Europe. Christopher regularly contributes a clinic column in *Herbs for Health*, and his articles have appeared in *HerbalGram, Natural Health, Vegetarian Times, Let’s Live*, and other national health magazines. Christopher is currently on the advisory boards of the American Botanical Council, United Plant Savers, *Let’s Live* magazine, *Herbs for Health*, and other organizations and magazines. He owns one of the most extensive private libraries on medicinal plants, with over 6,000 volumes, including herb books that date from the sixteenth century. He is in the process of developing a medicinal plant preserve and educational center called the *Living Farmacy*.

**Elson Haas, M.D.,** has been in medical practice for over 25 years and has helped develop the field he refers to as *Integrated Medicine*. He is the founder and director of the Preventive Medical Center of Marin, an integrated health care facility in San Rafael, California, where he specializes in Nutritional Medicine and Detoxification. He is also the author of five previous books on health and nutrition: *Staying Healthy With the Seasons, Staying Healthy With Nutrition, A Diet for All Seasons, The Detox Diet*, and *The Staying Healthy Shopper’s Guide*.

After his graduation from the University of Michigan Medical School in 1972, Elson received his further training in Northern California, where he has since resided. After his internship, he began further studies in many health-related fields — nutrition, herbology, Oriental medicine, exercise physiology, body therapies, and mind-body medicine — fulfilling his goal to learn something about health and healing after so many years of studying disease. Over the last two decades, Dr. Haas has incorporated, or to use a better word, “integrated,” these many healing disciplines into his family medical practice. He wrote about this process in his first book, *Staying Healthy with the Seasons*, published in 1981 and now in its 22nd printing.

With the great progress, awareness, and acceptance of nutritional and alternative medicine, Haas has been in the midst of this rapidly growing field. The wide availability and utilization of the thousand of products now available on the shelves of many types of stores is what makes *Vitamins For Dummies* essential reading to assist people in interpreting this complex field in order to achieve the great health and longevity
benefits of supplementation.

Dr. Haas travels and teaches nationally and appears on numerous radio shows. He is a professional consultant for many health writers and magazines, including *Natural Health, Women’s World, and Let’s Live.* His upcoming book, published by Ballantine Books, is titled *The False Fat Diet,* about food allergies and reactions and their association to body swelling and weight. Elson lives on a farm in Northern California where he raises food and animals (llamas, ducks, guinea pigs — his idol is Dr. Doolittle, after all!) with his wife and their two children.

Contact Dr. Elson Haas and sign up for his free newsletter and receive other health information at his Web site, [www.elsonhaas.com](http://www.elsonhaas.com)
Dedication

I dedicate this book to Beth, my partner in crime and a few legal activities (like writing this book) as well. Beth has supported me through tough times and shared in the joy of many fun and loving times, too. Our mutual love of plants, mushrooms, walking in the woods, and a life and home in nature with wild animals and plants brings extra beauty to each of our lives. We make a good team, and we still are able to be kids together and keep our sense of humor about life, at least most of the time. The miracle to me is that Beth has been able to put up with all my eccentricities (a nice way of putting it) and still keeps loving me. For this I’m forever grateful and blessed.

- Christopher Hobbs

I want to thank my wife Tara and our children for supporting me and allowing me to take the time needed on the computer and phone to complete Vitamins For Dummies. Even though there always seems to be so much to do, they remind me how important it is to take time to play, love one another, and generally keep the balance in my life.

- Elson Haas
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I want to express my appreciation to Stephen Brown, N.D., my long-time friend, and scientific advisor for much of this work. His incredible knowledge of the medical and nutritional literature is amazing, and even more, his ability to evaluate the quality and bottom line of many diverse studies was extremely valuable in the writing of this book. We wanted to write a book that was fun to use, easy to read, accessible and practical, and more, could clearly separate the supplements that really have some demonstrated effects from the ones mainly promoted by manufacturers for profit, but that had no history of use or proven benefits. Vitamins For Dummies comes much closer to this ideal goal because of his efforts.

My partner Beth contributed greatly to this project in every way as editor, writer, compiler, and researcher.

I want to also acknowledge my co-author, Dr. Elson Haas. Elson has been a complete joy to work with. He helped keep the project on track and was always encouraging us with frequent communication to make sure we were meeting our time and content commitments. My belief that the two worlds of modern medicine and natural healing and herbalism are coming together is supported by the similarity of our philosophical and practical approaches to healing. Of course, Elson has lived and written about natural healing and herbal medicine for many years, and we both believe that whole foods, a good diet, regular exercise, and other good health habits always come first before supplements, no matter how helpful they may be.

Western medicine is then saved for crisis care and technological advances, not for maintaining health. That’s up to each of us in our daily acts!

I also give humble thanks to my teachers, Paul C. Bragg, and my
mother, Eli, who taught me much about nutrition and health.

Our editor, Stacey Mickelbart, was super-efficient and energetically-compatible throughout the project. I respect her skills as a writer, editor, and project manager. Her help and support, and the help of her editorial assistants, made the writing of Vitamins For Dummies an enjoyable experience.

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We’re proud of this book; please send us your comments through our Online Registration Form located at www.dummies.com/register/

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Dandelion (Taraxacum officinale)

Echinacea (Echinacea angustifolia, E. purpurea)

Elder (Sambucus nigra)

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Introduction

Congratulations! If you picked up Vitamins For Dummies

Scientists agree that developing healthy habits can keep us feeling young longer and extend the years we have to enjoy all that life has to offer. But not all scientists agree that taking vitamins, minerals, and herbs, much less enzymes or hormones like DHEA, extends your life and prevents or treats disease. Hundreds of exciting new scientific studies show how the regular use of dietary supplements like vitamin E can promote good health and prevent disease, but these studies are scattered on the Web and in vast shelves of journals in medical libraries, and may not be easy to reach or understand.

To write Vitamins For Dummies, we reviewed thousands of studies and combined our 60 years of personal use, clinical practice, and research experience to help you make informed choices about dietary supplements. Although we’re always keeping an eye on the safety of supplements, we point out effective programs, including therapeutic diets and other healthy habits, to help you stay young and enjoy life longer than ever before.

About This Book

In order to maintain your health, you probably already know that some personal research and experimentation is necessary. Health is a lifelong journey that works best when you take charge of your own process. We encourage you to experiment with the supplements we cover in this book, especially after reading the appropriate sections and gaining an
understanding of how isolated nutrients can affect the balance of other nutrients and processes in your body.

In *Vitamins For Dummies*, we summarize the most important facts you need to know to put the supplements to work right away for maximum effectiveness. And we carefully review the most important side effects and situations when you should not take certain supplements. We review which supplements can be taken together and give you recommended programs for your particular needs and concerns. These programs have been carefully reviewed for modern scientific support. We add to the science many reports from our patients about what works for them with the greatest convenience and least number of problems. We tell you what is known about potential interactions between drugs, herbs, and other nutritional substances.

Because diet, health, and supplementation should be fun for maximum benefit, we invite you to enjoy *Vitamins For Dummies*. Turn to any page or chapter, and you will find clear ideas and guidelines for action. You also find easy-to-understand instructions about when to avoid taking some supplements, so you can put the power of vitamins, minerals, herbs, and other supplements to work for your health with a feeling of safety.

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**Read this first!**

The information in *Vitamins For Dummies* is not intended to substitute for expert medical advice or treatment; it is designed to help you make informed choices. Because each individual is unique, we recommend consulting with a professional health care provider for a complete interview, evaluation of your present condition and constitutional make up, and diagnosis. If you are under the care of a professional health care provider and receive advice that is contrary to the information provided in this reference, we recommend following the practitioner’s advice, because it is based on your unique characteristics and condition.
How This Book Is Organized

With *Vitamins For Dummies* in hand, you’ll find that choosing the right supplements is a whole lot easier. Perhaps you already follow a basic program, including supplements such as vitamin E, vitamin C, calcium, and maybe a one-a-day, all-in-one nutritional pill.

But what about beta-carotene, lycopene, ginkgo, cat’s claw, or even more exotic substances such as DHEA, melatonin, and phytoestrogens? You may have read about these, but now you can get a clearer idea of what they can do for you, or even if they are right for you. Taking a few supplements is a good place to start, but what about a whole program with five or ten supplements? What about supplements to help you with the pain of arthritis, a headache, or for helping to remember the name of a new friend? This can be tricky, as people with all kinds of special needs and desires.

In this introduction, we lay out the parts of this book so you can clearly navigate to the sections that most interest you and, we hope, ultimately excite and inspire you.
Part I: Starting Out with Supplements

In this part, we cover everything you need to understand and put into practice the supplements and programs in this book, including supplement basics, concepts you need to understand, and information about when to take supplements. We also fill you in on supplement labels — a fascinating world that is not always easy to navigate. And in Chapter 2, we present some popular therapeutic diets that have stood the test of time for their nourishing, healing properties.
Part II: Looking and Feeling Great with Supplements!

This part takes you on a whirlwind tour of the most important supplements. We start with all the vitamins, minerals, herbs, enzymes, oils, hormones, and other substances in popular supplements. The great thing about this part is the way the information is organized. We tell you everything you need to know for each substance: what the substance does in your body, its importance in health, what may happen if you don’t have enough of it in your diet, and what a therapeutic dose can do for you. You also find out when and when not to use certain substances.
Part III: Supplements for Everyone

Practitioners of natural medicine love to talk about how different people are. It’s true that each individual is unique; foods that you may find enjoyable and health-promoting, others find downright scary. But we also have many similarities. Men have some things in common, like a prostate gland. Women have ovaries and a uterus. Kids are generally more active than adults. In Part III, we talk about these similarities and why certain supplements are ideal for each unique group. This information can help you plan and fine-tune your supplement program with greater understanding and ease.

And because we all want to stay young as long as possible — but only if we feel good, and especially when we look good — we give special attention to programs for slowing the aging process and maintaining the youthful vigor of your organs and systems. The true fountain of youth is right inside you, and it’s most powerful when you make sure you obtain the substances that your fountain needs to work its magic powers.
Part IV: The Part of Tens

The famed Part of Tens is a practical overview of some of the most important things you need to know in order to choose the right supplements, get the most for your money, and get answers to your supplement questions.
Part V: Complete Healing Programs for Common Diseases and Symptoms

This is a key section of *Vitamins For Dummies*, because this is where we pull everything together in one place. In this section, you can look up many symptoms and ailments and instantly access a clear and practical program. We give a clear definition of the disease or supplement and indicate the common medical treatments. We tell you which supplements are backed by science, and which supplements (without scientific backing) have been used throughout the years and in our clinical practices. We pay special attention to safety issues, times when you shouldn’t take a certain supplement, and possible cross-reactions with medications and foods. We also list some dietary and lifestyle considerations that may help the effectiveness of your supplement program.

Resource Guide

At the end of *Vitamins For Dummies*, you find an appendix called the “Resource Guide.” It lists a number of resources, such as places to buy supplements, health and manufacturing organizations you may find useful, and Web sites for more research.

Icons Used in This Book

Throughout this book, you can find icons that mark the vital information in your supplement education. These icons tip you off to the following things:
We use this icon to point out how to take supplements, when to take supplements, and how often to take them.

This icon highlights special or difficult terms related to the world of supplements that you may need to know. But don’t worry, we explain them all in words that are easy to understand.

After you decide you need to obtain more of a certain nutrient, where can you find it? Supplements are helpful, but foods are an even better way to obtain these nutrients, so let this icon point the way.

We use this icon to give you tips and guidelines about supplements that you’ll want to remember long after you put down this book!

Sometimes you need to be especially alert about when to take a supplement, when not to take it, what it may interact with, and so on. We use this icon to point out these times and give you some guidance.

This icon calls attention to the times that you want to talk with an expert — a doctor, another qualified medical practitioner, an herbalist, or your nutritionist — and we indicate which of these practitioners you want to see. Seeing your practitioner helps you decide whether or not you’re choosing the safest and most effective treatment program.

Pay attention to these tidbits of information that can show you how to use herbs. We also use it to point out healthy practices or ideas that we find helpful as we try to obtain all the nutrients we need.

**Where to Go from Here**

In this book, you can quickly and easily find the information you need about nutritional supplements. Want to know more about a particular
nutrient? Flip to Part II. Know a lot about supplements but want to devise a program for your needs? See Part III. Want a quick overview of tips and answers to common supplement questions? Check out Part IV, “The Part of Tens.” Pick a chapter and jump right in.
Part I
Starting Out with Supplements

The 5th Wave  By Rich Tennant

"The doctor says you need more iron in your system, Pinnochio. Just hold still - a few more nails should do it."
In this part . . .

We hope you’re not pondering the question, “Why do I need supplements at all?” too seriously if you already bought *Vitamins for Dummies* and are home settling comfortably into the book. If you haven’t yet taken it home and are perusing it in the aisles of your favorite bookstore, then browse through the first chapter on your way to the checkout counter. In this part, we tell you about the benefits of nutritional supplements and how to choose the highest-quality supplements for the least money. We show you what special supplements you might need to add to your basic program, how to get going with your personal program, and how to read between the lines on supplement labels. We also tell you about some popular therapeutic diets and specific nutrients that you may need, to help direct you to chapters on those nutrients later in the book.
Chapter 1
Supplement ABCs

In This Chapter
- Why you need supplements
- Choosing the best supplements for your needs
- Starting with a basic supplement program
- Understanding labelese, the language of labels
- Knowing when and how to take your supplements

As a supplement buyer, you have probably pondered at some point, “Do I really need to take all these pills?” In our clinical practices, we have seen patients bring bags of them into the treatment rooms when they come in for a visit. Patients sheepishly pull out bottle after bottle with a questioning look — “Should I be taking this one?” We find that people are confused about which supplements are appropriate for everyday use, which ones can be taken with other supplements, which ones are safe to use with drugs, and whether to take supplements with meals or without food.

If you would like to simplify your supplement program, to learn how to read the labels on your supplements, and to maximize the health benefits and relief of symptoms from the supplements you buy, this chapter is for you.

Pills and More Pills — Why Bother?
You’ve probably seen a story about people living in the future who sit down to the evening meal where each person has a plate before them with a few scattered pills of various shapes and colors, and no food. The idea is that in the future, nutritional science will be so advanced that you can get all the nutrients you need every day in a few small pills. Just swallow and go about your business, full of energy and enthusiasm. This pill-taking diet is great for busy people who don’t want to be troubled by actually going to the store, selecting fruits, vegetables, meats, grains, and dairy products, then going home and actually preparing all those foods. But what about the flavor, textures, smells, and the ritual of mealtimes? After a few days on the pill diet, we’re sure you would soon start longing for the smell and taste of a great meal!

Fortunately, this scenario is not likely to happen anytime soon. You like food too much, right? But while the miracles of nutritional science can’t convince us to go on an exclusive pill diet, the nutritional work of scientists around the world can give you tremendous health benefits. Through advances in the measurement of nutrients in food, and close and systematic observation of large populations of people around the world, science has helped identify the most common nutritional deficiencies and created products to help prevent associated symptoms and diseases. Following, in a nutshell, are some of the most common nutritional deficiencies, the groups of people who have them, and the reasons why you may want to consider supplementing your diet with some of the new, effective nutritional products that are available:

➤ **If you are over 65:** You are more likely to be deficient in vitamin B-12, vitamin D, vitamin K, folic acid, zinc, and other nutrients. Vitamin D deficiency is especially common (up to 57 percent). Up to 20 percent of elderly women are deficient in vitamin C. To counteract the low hormone levels that occur as you age, and to enhance your energy, supplements like DHEA, pregnenolone, and 5-HTP, may be worth a try. These supplements
are called hormone precursors because they contain the building blocks for hormones. They each have different functions, including aiding in hormone production, helping to induce sleep, and balancing your moods. (See Chapter 7 for more on these hormones.)

**If you have a medical condition:** See your doctor or nutritionist before starting with one of the new hormone builders like DHEA or pregnenolone.

**If you’re a regular Joe or Jane:** Common nutrient deficiencies among the general population, especially if you eat a Standard Adulterated Diet (SAD), include at least zinc, chromium, and manganese, or a good general multivitamin. See Chapters 2 and 4 for more on these substances.

**If you’re pregnant and nursing:** You’re more likely to be deficient in folic acid (15 to 30 percent) and iron. Check out Chapter 11 for a complete program for moms.

**If you’re a woman:** You’re more likely to be deficient in magnesium, iron, zinc, folic acid, and possibly calcium. See Chapters 4 and 11 for more information on these supplements and a complete program for women.

What if you don’t fall into one of the previous categories? How much should you worry about nutritional deficiencies? Should you run out and buy armloads of supplements? Not really, but if you fall into one of the groups in the following list, you may want to pay more attention to your dietary intake of fresh foods that are high in nutrients and consider a few well-chosen supplements. You can benefit from supplements if you:

- Drink alcohol very often or if you abuse alcohol
- Follow a vegetarian diet
- Love junk food and don’t generally consume at least five half-cup servings of fresh fruits and vegetables daily
Choose to eat fewer than 1,500 calories daily because you’re dieting, sedentary, or have an infirmity or physical handicap

Are hospitalized

Are a woman, especially if you’re on birth control pills, pregnant, or nursing. (See Chapter 11 for a specific supplement program that can benefit you.)

Can’t afford all the nutritious foods that you know are good for you

Have a monster sweet tooth and eat a diet high in refined sugar

Have a mood disorder, like depression

Often experience loose stools or chronic diarrhea

Are obese and are 12 or younger

Factors to Consider When You Choose Your Supplements

Even if you eat a fairly good diet, other factors can contribute to nutrient deficiencies. Modern farming methods, like the addition of synthetic fertilizers to poor, overfarmed soils, can lead to nutrient-poor food. Even with refrigeration and modern shipping methods, vegetables and fruits rapidly lose vitamins during shipping and while on display in markets. Cooking foods and buying canned foods can also reduce nutrient levels. Perhaps the biggest factor, though, is poor food choices (Americans on average get about 60 percent of their calories from cookie ingredients, such as sugar, shortening, and white flour), which reduce the amount of nutrients you receive.

After looking up your symptoms or health concerns in the A-to-Z symptom guide in *Vitamins For Dummies*, you can make an informed choice about which supplements you want to try. When you’re in a
store, though, you may feel a little overwhelmed with all the products on the shelf. Forty brands of vitamin C, 20 of ginkgo, 10 different flax seed oil capsules. Which is best? Consider these factors:

**Price:** Don’t buy by price! If you buy the cheapest brand, you are likely to get a product with cheap ingredients. You owe yourself the best — you’re worth it. But don’t buy the most expensive product either. You’re likely to pay for the brand name. Buy products priced in the middle range.

**Brand:** Do buy by brand. Find a few brands you can trust and stick to them. To find reliable companies, it is often easier to shop in a natural food store or vitamin shop because the employees are likely to have more experience than those who work in a drug store or supermarket. (More and more pharmacists, however, are learning about herbs and other natural products, so if you find a pharmacist with an interest in this area, talk to him or her, too.) If you do buy from natural food stores or vitamin shops, call the companies you choose and ask them how long they have been in business. (A number of fine companies have been in business for ten or twenty years.) Although new companies often start up with good products, in our experience, these companies are much more likely to be marketing companies with less expertise. Many excellent products are also available on the Web or from mail order companies (see the Resource Guide).

**Whole supplement systems**

We like nutritional supplements from companies that make nutritional systems. Such systems provide not only pure vitamins and minerals, but also add whole food extracts like vegetable powders, green foods like spirulina, and even whole herb powders or extracts. This seems to be a sensible approach, because your body can’t always deal with pure concentrated nutrients. After all, that isn’t what our bodies are used to. Can we really second-guess the complete package of balanced nutrients, enzymes, and co-factors that are in the foods we eat? Taking
a lot of one isolated nutrient, like iron, can lead to an imbalance of other nutrients, like copper or zinc, or can be harmful.

**Get your co-factors**

If you do take some isolated nutritional products, such as vitamin B-6, zinc, calcium, or beta-carotene, always take the nutrient with the other parts of its complex or group, such as the other B-vitamins or minerals. These co-factors are secondary nutrients that combine with the original nutrient to produce certain substances that your body needs or to help a reaction occur. See Chapters 3 and 4 for examples of nutrients that require co-factors. For example:

- Instead of beta-carotene by itself, take a carotenoid blend with lycopene.
- Instead of alpha-tocopherol, a form of vitamin B, take “mixed natural tocopherols.” New research shows that vitamin B works much better with all of its components.
- If you want to take vitamin B-6 for your nerves and mood, take a complete B complex as well.
- If you take calcium to build strong bones, take all the factors that are known to work with calcium, namely magnesium, vitamin D, silica, and boron. A good multivitamin generally contains most of these nutrients.

**Understand the measurements**

The labels disclose all the ingredients in the product and give the amounts in milligrams (mg), micrograms (mcg), and international units (IU). Check the label to see how many tablets or capsules of the product you have to take to get the recommended daily requirement. If your doctor or practitioner has recommended a particular dosage of a
nutrient, be sure the product that you buy uses the same standard of measure, or check with your doctor or practitioner for the equivalent.

In this book, we use all three of these measurements for different substances, depending on how they are most frequently measured and sold.

**Minimum daily requirement**

Some confusion exists concerning exactly how much of a nutrient you need every day to prevent disease. Scientists and government policy-makers are often quite conservative when setting recognized standards that have to go on labels. For example, for years, researchers recommended only 60 mg of vitamin C a day. Recently, research shows that 300 mg (or more) is actually a more optimal daily intake. Many nutritionists and practitioners believe that even a gram or two is optimum.

Each person’s needs are different, and these needs change depending on how much stress you are under, your diet, level of health, or consumption of drugs, alcohol, sugar, or other foods. Just because no daily minimum requirement or recommended daily allowance (RDA) has been set for a nutrient doesn’t mean that it isn’t valuable, or that we don’t need it. In this book, we recommend amounts based on available data for safety and effectiveness, as well as our own clinical experience.

When you’re trying to figure out how many tablets or capsules of a supplement to take (or buy for that matter), don’t forget to look at the top of the panel that lists all the nutrients or ingredients you get in the supplement. Pay close attention to how many tablets or capsules it takes to give you the advertised amount. For example, you may look at a multivitamin product that says it delivers 100 percent of the daily recommended requirement of calcium — 1,200 mg. But how many tablets or capsules do you have to take to get the 1,200 mg? One, two, three, or even six. Remember to
check the dosage before buying your product. A product that looks like a potent product and a good deal may not be such a good deal after all!

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**Reading supplement labels at a glance**

If you’re like us, you like to dive right into something new without reading the labels or instructions first. You assume that you can figure it all out without having to take the time and effort to laboriously go through all the documentation. We don’t blame you, but that’s why you should read this section! We explain some basic label ingredients you need to know about when buying supplements. Then you can tell at a glance whether the brand or type of supplement you have in your hands is right for you.

Look for full disclosure labels that list all the fillers, binders, preservatives, and coloring agents, not just the active ingredients like vitamins and minerals. Some companies have more additives than actives, which makes for a more difficult-to-swallow tablet or capsule. Plus, do you really want to swallow all the milk, sugar, cellulose, and dye some companies add to their products? You should also be sure that the product you are considering has a lot number and expiration date.

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**The Best Way to Take Supplements — Every Day!**

Vitamins come in a variety of forms, including tablets and capsules, powder, sublingual tablets, lozenges, chewables, gel capsules, and liquids. Your body assimilates and absorbs some forms more rapidly than others. The following is a quick review of the major forms of these
products that you can buy and the advantages of each.

**Capsules:** Powdered formulas and fat-soluble vitamins like vitamin E come in this form. Nutritionists often consider capsules to be easier to absorb and digest than tablets. You can open up the capsules and sprinkle the powder on your food, or, as in the case of vitamins A and E, apply the oils to your skin. Vegetarians beware: Capsules are generally made from beef or pork gelatin, so you may prefer tablets or powders. Many capsules contain preservatives. Call the company to find out more.

Capsules made from all-vegetable sources (usually starch) have recently become available. Make sure that the product says it is made with vegetable caps; otherwise, it is not, because they cost more, and so the manufacturer would definitely want to advertise this benefit.

**Chewables:** Tasty chewable supplements are great for kids of all ages; but note that they often contain sugar, food coloring, binders, and fillers.

**Liquid vitamins:** Liquid vitamins are the form most easy for your body to incorporate. Supplement manufacturers often make children’s supplements in this form. Make sure to note whether these vitamins contain artificial colors and sweeteners.

**Lozenges:** Lozenges are great to help ease a sore throat, symptoms of a cold, or sore gums. But lozenges often contain sugar, coloring, and other fillers.

**Powdered vitamins:** If you have trouble digesting hard tablets, or even gelatin capsules, or you have weak digestion in general, mix these easily absorbed vitamins with water or juice. They may not always be particularly tasty, though. Powdered vitamins are also useful for people who have trouble swallowing pills.

**Tablets:** Tablets are the most common form for supplements and have the longest shelf life. They are usually cheaper to produce and often cost less than other forms. Note, however, that tablets generally have fillers, binders, or coatings. Check the weight of the ingredients for a similar cost of a capsule product,
which does not need binders, coatings, and so on. Some vitamins are available as *sublingual tablets*, meaning that you place them under your tongue and let them dissolve.

The products you buy can include a wide array of non-essential substances that can reduce the quality of the product and make for a larger, harder to swallow tablet or capsule. Fillers, such as lactose, can lead you to believe that you’re getting more of an active nutrient than you actually are. Binders, such as gum arabic, are used to hold the ingredients together in a tablet. You may want to notice whether your product contains synthetic food colorings, some of which are known cancer-causing agents (in laboratory animals). Do you really need red or green vitamins?

The term *full disclosure* means that the manufacturer of the product has listed *everything* that is included in the product, including binders, fillers, coloring, and preservatives. Unfortunately, many companies do not list all the ingredients in their products — a big drawback in our opinion. Don’t be shy about calling the manufacturer to ask them for a full disclosure list of everything in a particular product. You want to know this, especially if you plan on taking the product for months or years! Small amounts of a substance you don’t want in your body can add up.

Some vitamin labels let you know that the product contains no sugar, salt, yeast, wheat, gluten, corn, dairy products, flavorings, or preservatives. We like to support companies that avoid these common allergens and toxins.

Sunlight causes vitamins to lose their potency, so make sure to store them in a cool, dark place. Do not store them in your bathroom, due to moisture there, or in the refrigerator after bottles have been first opened, because that will condense detrimental moisture inside. If you refrigerate some unopened bottles, don’t open them until they are at room temperature.
Get the FAQs about Taking Supplements

When you get into a supplement-taking routine, a number of other questions are likely to come to mind. Here we summarize the most-frequently asked questions (FAQs) from our patients, along with solutions that work for most people, including our families and ourselves.

Consistency is the key to success with supplements. We have been able to compare patients who take supplements “when they think about it,” every few days, to patients who take them daily, without fail. The steady supplement takers always get better results.

- Should I take supplements with or without food? Capsules, tablets, and powders are usually absorbed more completely when taken with food, because all your digestive juices are most active then.

- What if taking a supplement makes me feel queasy? If you have a sensitive stomach, or notice that a particular supplement makes you feel a little sick for a short time, or you don’t like the oily taste of vitamin E, take the supplement just before your meal.

- I hate taking pills — how can I keep them from getting caught in my throat? To prevent capsules or tablets from getting stuck in your throat — often a most unpleasant experience — place them in your mouth, and swish around with a liquid, like juice or water, until the supplements become slippery, then swallow.

- Can I take herbal tinctures with my meal? I don’t like the taste. Take liquid herbal tinctures other than at mealtimes for maximum absorption, unless they upset your stomach.

- Do I need to take supplements at a certain time of day? For maximum results, take supplements with the morning and evening
meal. If you can only remember to take the supplement once a day, take it in the morning. A container called a *vitaminder* (shown in Figure 1-1), which contains all the supplements you need to take each day, can help you remember to take them.

![Figure 1-1: A vitaminder keeps you on your toes and helps you take supplements regularly.](image)

**How long will it take to see results?** After starting with a new supplement, you may get the results you are looking for after a few days to a week. But it is much more likely that the positive benefits develop over several weeks to several months. For acute conditions, like a cold, your herbal formula or zinc lozenge should give you quick relief; but for chronic ailments, like arthritis or digestive disorders, allow several weeks. For most chronic conditions, allow about two to three months as an initial “course” of supplementation.

We recommend talking to your health care practitioner before attempting to ease symptoms or treat a serious ailment, or a long-standing (chronic) ailment. Visit your practitioner regularly for serious ailments, or, after one course of treatment — usually two or three months — for chronic ailments.

The Supplements We Take

After years of study, clinical practice, research, and trying all kinds of supplements, we have refined our supplement intake to include what we consider to be the essentials, which we show you in Table 1-1. People
have different needs, of course, but the following is a short list of supplements almost everyone can benefit from. Remember to adjust the amounts up or down slightly, depending on whether you have a good diet or nutrient-poor diet. These aren’t the only supplements we ever take or recommend, but they are a good, safe, and user-friendly way to start a healthy supplement program. If you have been using supplements for a while and are now taking dozens because they all sounded so good, try cutting back to the essentials for a month or so, and then add a few specifics based on your needs.

### Table 1-1 The Essential Supplements

<table>
<thead>
<tr>
<th>Supplement</th>
<th>Dosage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Multivitamin-mineral-everything</td>
<td>2 to 4 tablets daily; you can take them just once in the morning with breakfast</td>
</tr>
<tr>
<td>everything supplement</td>
<td></td>
</tr>
<tr>
<td>Vitamin E</td>
<td>400 to 800 IUs</td>
</tr>
<tr>
<td>Vitamin C</td>
<td>1 to 2 grams</td>
</tr>
<tr>
<td>Calcium/Magnesium or bone-building supplement</td>
<td>1,200 mg/600 mg</td>
</tr>
<tr>
<td>(with 400 IUs vitamin D, silica (no RDA), and 2 to 3 mg boron)</td>
<td></td>
</tr>
<tr>
<td>Grape seed extract</td>
<td>200 to 400 mg</td>
</tr>
<tr>
<td>(antioxidant booster)</td>
<td></td>
</tr>
<tr>
<td>Fresh-ground flaxseed</td>
<td>1 teaspoon to 1 tablespoon, or 4 capsules high lignan flaxseed oil</td>
</tr>
<tr>
<td>(bowl of regulator, fatty acid</td>
<td></td>
</tr>
<tr>
<td>source)</td>
<td></td>
</tr>
</tbody>
</table>

If you want to supercharge your system with nature’s cleanser and blood-builder, chlorophyll (as well as minerals, vitamins, enzymes, and other healthy factors), add one of what we call the super green foods daily: spirulina, chlorella, blue-green algae, barley grass powder, or wheat grass powder. One teaspoon in a little juice or a banana-protein powder smoothie does the trick. See Chapter 9 for more information on these super green foods and Appendix A for mail-order companies who
sell them.
Chapter 2

Getting Nutrients from Food and Popular Therapeutic Diets

In This Chapter

- Discovering the strengths and weaknesses of eight commonly followed diets
- Understanding the different types of vegetarian diets
- Adopting the right diet for your needs
- Extending your life and maintaining your health with proper eating habits

Nutritional supplements are great for helping your body to get all the major vitamins, minerals, and other nutrients it needs, especially those substances that you need in very small amounts. They’re easy to carry and take (if you don’t get too carried away with dozens of kinds). They can often help to correct nutritional imbalances and relieve the physical symptoms of some illnesses. But supplements can never replace a healthy variety of wholesome foods as your best source of the vital substances that your body needs every day. Using foods to get most of the vitamins, minerals, and other nutrients that you need is still your best bet.

A good supplement program always works more effectively to help prevent and ease disease when coupled with a clear dietary program, especially when it’s tailored to your individual needs. We’ve been studying and experimenting with dietary programs for over 30 years and have tried just about every diet known, including the McDonald’s diet, the Kentucky Fried Chicken diet, fruitarianism, vegetarianism —
only stopping short of breatharianism (living on air alone!). We have tried all the diets in this chapter and have suggested them to our patients for many years. We know that they’re effective and that maintaining a particular nutritional program is easier if it meets your individual needs and fits your lifestyle.

Although it may be difficult to start eating different types of foods, taste and enjoyment are mostly learned. The more you choose to eat healthy foods (as snacks, for example), the more normal that pattern will seem. As you start to see the physical benefits of increased energy, clearer thinking, and better looking skin, these too will reinforce your new diet. While you may never stop liking certain junk foods, you can learn to like new things, which helps decrease how often you eat the bad stuff. After you start eating a mostly whole foods diet, your body’s innate intelligence takes over and helps you fine-tune the foods you choose for the best health possible. For instance, you may need more calcium, and your body will naturally crave almonds — a food high in calcium.

Check out the diets in this chapter to see which best suits your needs. Hopefully that diet will suit your tastes as well! Some of these diets are meant to be followed for a limited amount of time only, such as the building diet after an illness or the detox diet for arthritis. In Part IV, you can find specific diets recommended for certain health problems.

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**Junk Food Heaven**

Bring me your tired, your poor, withered vegetables and meet me in Junk Food Heaven, a place where we can enjoy doughnuts by the dozen — jelly-filled, the powdered sugar ones, and the ones that leave your fingers sticky and sweet. It’s where you can order five-foot-long hot dogs with enough nitrites and nitrates and red dye number 10 to make them mouth-watering tangy. You get those special steamed-soft ever-so-white buns that melt in your mouth.

The burgers keep coming with 1/4-pound patties of beef, and
the fat is never trimmed. The pickles have edta-50 and look funny-green, and the fries leave big greasy circles on the package. The shakes never say what's in them, because we don't want to know. Just make it strawberry, chocolate, and vanilla, and make it cold and thick.

Oh keep bringing the chips, the salted nuts, Slim Jims, and pink Twinkies, and let me eat them with pleasure and with no remorse.

The Whole Foods Diet

The whole foods diet is a vast improvement on the Standard Adulterated Diet (SAD), the main fare on plates throughout North America, Europe, and other technologically advanced nations of overfed and undernourished eaters. The whole foods diet is simple. You’re a whole-fooder when you eat 85 percent of your foods in their whole, unadulterated form — whole grains like rice, millet, and corn; beans; vegetables and fruits eaten raw, juiced, or simply cooked; and nuts and seeds, unroasted and unsalted. A whole foods diet works well with spices, herbs, and sauces made with olive oil, lemon juice, ground walnuts, mustard, chilies, pepper, vinegar, and any other natural seasonings. The whole foods diet is adaptable to any cultural taste or tradition. The goal is to get as many nutrients as possible in the most natural form — without adding manufactured nutrients back into food. The whole foods diet is a good one if you just want to eat healthfully and not accomplish a specific mission with your diet.

This diet includes fresh, whole foods like the following:

- Fruits and vegetables
- Whole grains and pastas
- Legumes (beans and peas), nuts, and seeds
Small amounts of animal proteins

The Whole foods diet resembles the Mediterranean diet, not only in the foods you eat, but also in how they’re prepared. Typical items on the menu include the following:

- Fresh salads
- Steamed or lightly sautéed vegetables
- Pastas and whole grains, such as millet or brown rice
- Baked fish and chicken

Mineral waters and some fine wine in moderation are the beverages of choice, but not necessarily in that order. Mineral waters aid your digestion slightly and supply a few extra minerals, and wine in moderation has been shown to benefit your cardiovascular system.

Olive oil is the best oil to cook with; other healthy refrigerated vegetable oils like flax seed oil can be used directly on foods for variety in seasoning. These oils contain the most heart-friendly blends of natural fatty acids, which provide your body with essential fatty acids necessary for the health of your cells and tissues. Eat butter and cheese in limited amounts only, more as a treat than as a regular part of your diet. In addition, avoid excess salt, sugar, food additives, and fried or excessively refined foods.

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### Key risk factors for cancer

Your risk of developing cancer greatly increases when you smoke, are overweight or obese, or are exposed to toxic chemicals from nonorganic food, water, or in your home or work place. Your body's immune system requires ample amounts of specific nutrients like selenium and zinc in order to do its job. Dietary deficiencies of any kind can lead to lackluster performance of your waste-elimination and immune surveillance systems. Excessive sun exposure, coupled with a
toxic body, increases your chances of developing melanoma, a
dangerous form of skin cancer that is on the rise. Some
pharmaceutical drugs like estrogen supplements (synthetic
estradiol) and regular alcohol use are associated with breast
and uterine cancer. Family and genetic risk factors are
obviously important, but what you learn and practice with your
diet and health habits are far more important!

Vegetarian or Vegan Diet

A vegetarian diet consists of all food stuffs other than fish or meat.
Several variations of vegetarians exist. If you’re a vegetarian, you
probably fall into (or between) one of the following diet categories:

✔ **Vegan:** People who follow a vegan diet eschew (not chew) all
substances that come from animals — specifically meats, poultry,
and seafood, as well as milk, eggs, and other dairy products. Some
avid vegans even prefer not to wear animal products (such as
leather).

✔ **Ovo-vegetarian:** This diet is the same as the vegan diet but
includes eggs.

✔ **Lacto-vegetarian:** Lacto-vegetarians include animal milk
products in their diets.

✔ **Lacto-ovo-vegetarian:** These folks include milk and egg
products in their diets.

Studies show that people who eat a balanced whole foods, mostly
vegetarian diet enjoy distinct health benefits. Vegetarians eat more
vegetables and fruits by definition, and these foods are loaded with
protective vitamins, minerals, flavonoids, carotenoids and other
goodies. They often live longer, healthier lives, and they suffer from
fewer degenerative diseases that can plague heavy meat-eaters, such as
arthritis, heart disease, and cancer. Many vegetarians appreciate not only the health benefits of their diet, but also that it doesn’t involve inhumane treatment of animals or wasted water and land resources.

As a vegetarian of any type, you need to make sure that you aren’t deficient in nutrients that are abundant in animal foods, such as some amino acids (the building blocks of protein), iron, zinc, calcium, and vitamin B-12.

Use Table 2-1 to help you get the nutrients you need.

<table>
<thead>
<tr>
<th>Nutrient Needed</th>
<th>Foods to Eat</th>
</tr>
</thead>
<tbody>
<tr>
<td>Calcium</td>
<td>Broccoli, cauliflower, tofu, dried beans, and nuts.</td>
</tr>
<tr>
<td>Iron</td>
<td>Wheat, oats, brown rice, dried beans, green leafy vegetables, broccoli, raisins, and prunes.</td>
</tr>
<tr>
<td>Protein</td>
<td>Legumes, grains, nuts, and seeds.</td>
</tr>
<tr>
<td>Vitamin B-12</td>
<td>Milk products, especially yogurt. Tempeh and sprouts contain small amounts.</td>
</tr>
</tbody>
</table>

**Allergy-Elimination Diet**

Try the allergy-elimination diet if you’re plagued with food allergies and sensitivity to airborne allergens, such as pollen and mold spores. Foods that commonly cause allergic reactions are

- Cow’s milk and other dairy products
- Eggs
- Peanuts
- Sugar
Wheat

Other common allergenic foods include soy, corn, yeast and tomatoes. Keep in mind that prepared foods that contain these ingredients may also be a factor if you suffer an allergic reaction to them.

If you’re under constant stress, you’re more likely to suffer from food allergies. Stress weakens your immune system, making it more irritable and likely to overreact to some foods. You’re also more likely to suffer if you regularly eat processed foods, have a nutrient-poor diet, or live in a place where you or your food are regularly exposed to toxic chemicals.

Digestive allergies and digestive weakness lead to poor assimilation and the absorption of incompletely digested food components, which can lead to more powerful allergic reactions.

Symptoms of food allergies include

- Changes in your mood and brain function (You may experience muddled thinking or disorientation.)
- Lower energy levels
- Physical symptoms that include skin rashes, joint pains, weight gain, and sinus congestion; increased hay fever symptoms, and increased susceptibility to infections

If you follow an allergy-elimination diet, you avoid foods that commonly irritate the intricate network of immune sensors in your upper digestive tract, which lead to symptoms like gas, bloating, painful digestion, a feeling of fullness with even the smallest meals, and fatigue and achy muscles after eating. Our experience shows that food allergies are common in those with hay fever and other airborne allergies as well, so this is a good place to start for any kind of allergy. You may also want to try this diet if you have rheumatoid arthritis, allergies, irritable bowel syndrome, or Crohn’s disease. (See Part V for more
The allergy-elimination diet includes foods that are chemically less likely to cause allergies and that are often uncommon in a typical diet. Try some of the following:

- Lima beans and most vegetables (except tomatoes or corn)
- Rice
- Seafood (not shellfish) and poultry
- Some fruits (except citrus)
- Walnuts and almonds

Try the allergy-elimination diet for a couple of weeks, and if you’re feeling better, continue. After a couple of months, challenge yourself by trying one or more of the foods you’re avoiding, and see how your body handles them. If you don’t experience any adverse reactions, grab your fork and knife and gradually reinstate them into your diet.

**Cleansing Diet**

The cleansing diet (which we often call the *detox diet*, adopted from Dr. Elson Haas’s book *The Detox Diet*, published by Celestial Arts), is a cleansing yet nourishing regime that’s low in protein and easy to digest. It’s a support program for taking a break from common SNACCs — sugar, nicotine, alcohol, caffeine, and chemicals (in both foods and drugs). A cleansing or detox diet can be used as part of the healing plan for such ailments as allergies, asthma, high blood pressure or cholesterol, skin problems, gastrointestinal disorders, arthritis, and many other chronic degenerative diseases. This diet is good to follow for two or three weeks once a year or so to give your digestive system a break and to help yourself break bad habits or unhealthy patterns of
eating that are easy to fall into.

The detox diet focuses on foods that clean out your digestive system, relieving your body of toxic byproducts and chemicals stored in your tissues.

If you follow this diet for two to three weeks (the time frame we recommend for best results), you can reduce your weight, improve your energy level, clear congestion, and look and feel younger and more limber. Follow this plan for your daily meals:

**For breakfast:** Begin with two glasses of pure water. Squeeze half a lemon in the water, which helps to cleanse your intestines and stimulate digestion.

A half hour later, have one piece of fruit followed by a whole grain, such as rice or millet. (You can eat the hot grains with a little olive oil and herb seasoning. Come on — it’s only for a couple of weeks!) Chew your food well. If you commonly experience indigestion, you may want to wait a half hour between eating the fruit and the grain.

**For lunch and dinner:** Prepare a mixture of steamed vegetables. Season them with “better butter” — a combination of butter and canola or flaxseed oil in a ratio of 1/4 pound butter (preferably organic) to 1/4 cup oil. Use three to six teaspoons of this combination daily. Better yet, simply sprinkle on cold-pressed extra virgin olive oil and your favorite herbs and skip the butter altogether. Cold pressed oils are the least refined oils, meaning heat and chemicals aren’t used in the extraction process. These oils don’t break down as easily in the extraction process and retain more vitamin E.

Chewing and eating your meals more slowly also goes a long way in improving your digestion.

If you’re very thin or frequently tired, add some protein (such as brown rice with lentils or tofu or three to four ounces of fish or chicken), to the detox diet in the afternoon and some well-cooked
brown rice to vegetable meals. In general, very thin or weak people should not be detoxifying — they should be building nourishment and correcting imbalances first.

Sweating and brushing off dead skin cells are the primary ways that your skin eliminates toxins, so try sitting in a sauna or eliminating dead skin with a loofah when you’re on the detox diet. It’s also important to keep your bowel movements regular, drink lots of water, and get regular exercise.

### Protein and Energy-Building Diet

This protein-rich diet lowers your carbohydrate intake and provides lots of amino acids to help strengthen your body, increase energy, and lose weight. The protein and energy-building diet is helpful if you are chronically tired and depressed, and if you have a high-carbohydrate diet with lots of bread, pasta, baked goods, and sweets. Similar diets are described in the popular books *Protein Power*, by M.R. Eades and M.D. Eades (Bantam, 1997), *The Zone*, by B. Sears (HarperCollins, 1995), and *Dr. Atkin’s Weight Loss Revolution*, by R. Atkins (National Book Network, 1999). While not identical, these books discuss carbohydrate intolerance and the importance of eating enough amino acids daily to supply your nervous system and repair your body tissues.

Depending on your metabolism and body type, adopting this diet can trim off extra pounds and help you maintain strength and muscle mass. Many people claim to have more energy on the building diet.

This diet includes the following:

- Daily animal proteins from dairy, like unsweetened yogurt or feta cheese, fish, and a little chicken or turkey. Keep red meat to a minimum.
Daily protein from vegetable sources, such as nuts, seeds, and beans.

A moderate amount of fats and oils.

Lots of green leafy vegetables.

Other low-carbohydrate vegetables, such as celery and cucumbers.

If you try this diet, avoid or greatly limit the following foods:

- Sugars
- Breads and pastas
- Fruits and fruit juices
- Starchy vegetables, such as potatoes and carrots
- Carbohydrates in general

Potential drawbacks of the building diet are a build-up of toxins like ammonia and uric acid, that can accumulate when your body processes a lot of proteins, as well as stress on the kidneys and the cardiovascular and gastrointestinal systems. Also, your diet may be so protein-heavy that you don’t get enough other nutrients.

If you follow a high-protein diet to lose weight or to balance your metabolism, be sure to eat lots of non-starchy green and other colored vegetables every day to help cleanse your body of potentially toxic protein byproducts. (These vegetables contain loads of antioxidants and chlorophyll, which aid the cleansing process.) Drink water readily — at least eight to ten glasses a day — to help flush out toxins that can accumulate while you follow this diet. Protein foods tend to contain less inherent water than fruits and vegetables.

**Modified Macrobiotic Diet**
Macrobiotics is an Asian-influenced program that focuses primarily on a wholesome, cooked, mainly vegetarian diet. *Macro* is the Greek word for “great,” and *bios* is the word for “life.” This program was mentioned in the writings of Hippocrates and has come to mean a way of life according to the greatest or longest possible view. In our opinion, this diet is excellent for people who are just beginning to want to improve their diets, as long as they follow it with common sense. Although no scientific studies exist to show this diet’s effect on cancer, many clinicians say it has helped some of their patients overcome cancer and heal other degenerative diseases.

Make sure to vary the diet, and eat fresh foods that are available in your locale during each particular growing season. We call this diet a modified macrobiotic diet because we believe that you should eat some raw fruits and vegetables in the warmer months and more cooked foods in the colder months. (In most macrobiotic diets, all the vegetables are generally cooked.) Many books are available to guide you step by step. See Appendix A in this book for suggestions.

This diet consists mostly of the following foods:

- Brown rice and other whole grains
- Cooked vegetables — especially bright-colored ones, such as carrots and squash
- Legumes, such as black beans and adzuki beans
- Tofu and other soy products (such as miso, used in soups)
- Seaweed

For balance, the diet should also include small amounts of the following:

- Fruits
- White fish
Fermented foods, such as sauerkraut, yogurt, cottage cheese, and tempeh

Avoid the following:

- Sugary foods
- Processed flour and most refined foods
- Meats and poultry
- Fruit juice or large quantities of fruit (Most fruit in this diet is cooked, for example baked apples or fruit compote.)

Although not part of the original Macrobiotic diet, research shows that adding some dairy products, whole nuts, and seeds is healthier.

Studies show that many of the foods in the macrobiotic diet are high in phytonutrients or food components studied and shown to provide specific health benefits, such as the B-complex vitamins, carotenoids, and flavonoids. These substances can help to protect your cardiovascular system and help to prevent cancer.

This diet is popular for the prevention and treatment of cancer and other serious conditions, and many people consider it to be beneficial to your health in general.

Some people who follow this diet too rigidly have developed nutritional deficiencies, such as too little protein, calcium, iron, and zinc. Make sure to use common sense and vary the diet according to your needs, the climate in which you live, and the seasons. We suggest that you eat more cooked grains, legumes, nuts and seeds, and more protein during seasons with cold temperatures. These foods provide more concentrated fuel that requires more heat (energy) to prepare. In warmer times, get more fluids, fruits, and raw salads that nourish and cool the body and don’t require much heat or cooking.
Heart Healthy Diet

Dr. Dean Ornish and other doctors, as well as the American Heart Association, promote this exciting and health-friendly low-fat program. For even greater effectiveness, Dr. Ornish advocates combining this diet with lifestyle changes, including counseling, exercise, meditation, and relaxation techniques. In clinical trials, participants on the Heart Healthy Diet experienced heart disease reversal. They lived longer, had fewer heart attacks, and had less clogging in their arteries, as well as lower cholesterol, lower blood pressure, and the need for fewer medications.

Consider practicing this diet if you have existing heart disease, like hardening of the arteries or blocked arteries, coupled with known high cholesterol or high blood pressure. Why not start now and avoid the probable heart attack or stroke later on?

This diet is mostly vegetarian and consists mainly of the following foods:

- Whole grains and pastas
- Legumes and beans
- Vegetables and salads (in abundance!)
- Some skinless poultry and fish
- Some non-fat dairy products

If you try this diet, avoid all saturated fats and limit nuts, seeds, and even vegetable oils (although including small amounts of nuts and seeds, like walnuts, almonds, flaxseeds, and sunflower seeds, is important to prevent deficiency).

Regular exercise is an important addition to a Heart Healthy Diet. We recommend at least 30 minutes of brisk walking at least five
days a week, but daily exercise is even better, with some aerobic exercise like biking, jogging, or swimming.

Nutritional supplements — including a full range of antioxidants — are also helpful additions to this diet. See Chapter 1 for a basic supplement program.

**Life-Extension Plan**

Call this plan your ideal lifestyle program for high vitality and a long life. For years, researchers have concluded that the best way to extend your life is to avoid overeating. Judge how much you ate by how you feel a half an hour later; if you feel full, it’s too much, so next time, stop after a reasonable helping of food. It’s amazing how much less we really need to eat to feel good and stay healthy. Ongoing studies show conclusively that animals like mice and hamsters, and even chimps, live up to 40 percent longer with fewer degenerative diseases when they undereat slightly.

The main idea is to eat a low-calorie diet that’s moderate in protein and varies according to the seasons and your lifestyle. This diet also provides large amounts of nutrients that are easy for your body to absorb and use. Although the diet is obviously one that doesn’t allow for eating until you are really hungry, you can eat ample amounts of high-quality food at each meal. To reduce overall calories, we recommend fasting one day a week, and three days every three months. In the Life-Extension Plan, we also add a few other healthy guidelines to increase its effectiveness.

This regime includes all-natural foods in their freshest state, such as

- Leafy greens
- Sprouts of all kinds (seeds, legumes, and grains)
Organically grown fruits and vegetables

Organic nuts and seeds

Fresh yogurt

Small amounts of free-range poultry (check the label for this distinction) and untreated fish from relatively non-polluted waters

The liquids that you consume on this diet should consist primarily of mountain spring (or similar purified) waters and herbal teas.

One of the focal points of this diet is avoiding chemicals that don’t naturally occur in the foods you eat. For this reason, avoid pesticides and herbicides by buying organic foods, or by growing your own. In addition, check the labels on meats you buy to avoid the antibiotics and growth hormones used by some farmers. The packaging of most meats will declare when they are free-range, or don’t use antibiotics or hormones. Eggs are also labeled as free-range, but just assume they used antibiotics unless they say they didn’t.

Regular physical activity, such as walking or biking, is important in combination with this diet because it keeps you trim and healthy. Gardening is another recommended form of exercise, and you can reap the extra benefit of growing your own organic foods.

A regular supplement program that includes vitamins, minerals, and complete antioxidants helps your body function even better. See Chapter 1 for a basic supplement program.
Part II
Looking and Feeling Great with Supplements!

The 5th Wave  By Rich Tennant

"I like to maintain optimum health while I'm performing, so I supplement my diet with vitamins C, D, and E flat."
In this part . . .

Now was that vitamin D or DHEA that is made in your skin from sun exposure and strengthens your bones and teeth? Let’s see . . . Omega-6 — is that something to eat, or the science fiction movie I saw last night? These terms can be confusing when there are hundreds of vitamins, minerals, hormones, amino acids, fatty acids, and enzymes coming at you as you walk down the aisles of your favorite supplement shop or surf your favorite supplement site.

In this part, you find chapters or sections about all sorts of supplements, loaded with key information to help you make an informed, safe, and effective choice. These chapters are a lot easier to read than the product labels and certainly more realistic than advertisers’ claims!
Chapter 3

Vitamins: The ABCs

In This Chapter

- Utilizing vitamins — what your body does with them
- Using vitamins for preventing disease and relieving symptoms
- Getting vitamins in your diet
- Calculating the correct dosage for your needs
- Avoiding toxic side effects and deficiencies

Your mom probably didn’t give you a choice between a chewable gummy bear vitamin or a big helping of vitamin-rich vegetables, but she was right — your body does need them daily. Vitamins support body functions, help you utilize your food, and catalyze (stimulate) many biochemical reactions. Your body does not produce vitamins, other than some B vitamins made by intestinal bacteria, so you need to obtain them regularly from food or from dietary supplements.

Today, even some doctors recommend taking vitamins as a supplement to your diet for several important benefits: vitamin A for healthy skin, vitamin C to treat and prevent viral infections like the common cold, and vitamin E as an antioxidant, a substance that protects the heart and arteries. Vitamin E and vitamin C work together as one of nature’s finest antioxidant systems and may be the two most commonly used dietary supplements. In Table 1-1 we review the major functions of vitamins by body function. In the rest of this chapter, we tell you about each type of vitamin, as well as its sources, recommended dosages, and possible interactions with other substances.
Using Vitamins to Improve Body Functions

Vitamins play an important role in supporting many body functions. In Table 3-1, you can see which vitamins to take for maintaining optimum health of key body systems. See Chapter 4 to learn which minerals have a beneficial effect on individual body functions.

Table 3-1 What Have Your Vitamins Done for You Lately?

<table>
<thead>
<tr>
<th>Body Function</th>
<th>Key Vitamins</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anti-aging (antioxidant) function</td>
<td>Vitamins C and E, beta-carotene</td>
</tr>
<tr>
<td>Body chemistry and nerve function</td>
<td>All the B vitamins, especially pyridoxine, folic acid</td>
</tr>
<tr>
<td>Immune function</td>
<td>Vitamins A, E, C, and B-12, folic acid, pyridoxine, pantothenic acid</td>
</tr>
<tr>
<td>Sexual function and reproduction</td>
<td>Vitamins C and E, niacin, folic acid</td>
</tr>
<tr>
<td>Tissue (and bone) support</td>
<td>Vitamins A, C, D, and E (for collagen support)</td>
</tr>
</tbody>
</table>

Throughout this book, you see the amounts of vitamins, minerals, and other supplements given in *mg*, which means milligrams, or 1/1,000 of a gram. Sometimes, nutrients the body needs in very small amounts are taken in *micrograms*, or mcg. One milligram contains 1,000 micrograms. Grams and milligrams are part of the metric system, an international system of measure. For comparison, 1 ounce is equal to 30 grams. Some vitamins are oddballs and are commonly measured in International Units (IU). Fat-soluble vitamins in IU are equivalent to a certain milligram amount.
Vitamin A and Beta-Carotene

This crucial vitamin was the first vitamin to be officially named, so it became vitamin A. Your body needs a steady supply of A to maintain healthy skin, good eyesight, and growth in kids. It has become a credible antioxidant for cancer prevention; and as an active immune system enhancer, it helps prevent other diseases as well. Beta-carotene is a double vitamin A molecule and must be converted to vitamin A in your body. It is water-soluble, meaning that it dissolves in water. The body can eliminate what it doesn’t use, and thus it has less toxic potential than vitamin A, which can build up.

Key uses of vitamin A:

- Used to treat acute infections.
- Helps treat skin problems — especially acne.
- Improves poor night vision.
- Protects the body from the cell-disturbing effects that many toxic chemicals have. Research shows that beta-carotene has strong antioxidant activity and can help protect you from developing some kinds of cancers — especially skin cancer and lung cancer. If you smoke or get some sun exposure, vitamin A or beta-carotene is an excellent addition to your daily supplement program.
Where you can find it: Vitamin A is found naturally in orange and yellow fruits and vegetables such as spinach (shown in Figure 3-1) as beta-carotene and in animal fats, such as egg yolks, as true vitamin A. It’s also called retinol because of its beneficial effects on vision.

How much to take: The recommended daily intake of vitamin A is between 3,000 to 10,000 IU, depending on your age and the state of your health, while a safe beta-carotene intake is 10,000 to 50,000 IU.

Too little or too much: Deficiencies of vitamin A adversely affect the skin, immune function, and eyesight. Toxic effects of vitamin A result from taking too much over time, while beta-carotene’s only adverse effect is giving the skin an orange color.

Vitamin D

When you take vitamin D, a fat-soluble vitamin, it is absorbed with other fats through the intestinal walls and then stored mainly in your liver. After being converted by the liver, it goes to work helping your body absorb and use calcium. Vitamin D plays a major role in the development of bones and protects against muscle weakness.

Your skin manufactures vitamin D when you are exposed to sunlight, and thus it is known as the “sunshine” vitamin. You can manufacture up to 400 IU of vitamin D, also known as calciferol, with only 20 minutes of sun exposure over a small portion of your body.
Key uses of vitamin D:

шение your body use calcium and therefore prevents tooth decay, heals fractures, and prevents osteoporosis when combined with adequate calcium and regular exercise.

Helps the absorption and metabolism of calcium and phosphorus as a common ingredient in multivitamins and bone building formulas.

Where you can find it: Found in fish, egg yolks, and butter, but mostly fortified in foods like milk. Cod liver oil is a common source.

How much to take: You can take 200 to 400 IU a day in supplement form, especially during times of low sun exposure.

Too little or too much: Toxicity can occur when vitamin D is taken in doses higher than 1,000 to 1,500 IU daily for longer than one month.

Vitamin E

Vitamin E is an important antioxidant that protects cells and tissues from damage by free radicals generated by chemicals and oxidized fats. It is best taken with vitamin C. The two form a team, and vitamin C can actually “reactivate” vitamin E, allowing it to keep on working to deactivate free radicals. Vitamin E is one of the best-researched and most widely accepted supplements in the medical community.

Free radicals are unstable molecules with extra “free” electrons looking for a connection. They can latch onto a cell membrane or blood vessel lining and create constant inflammation, leading to eventual damage. Antioxidants neutralize these electrons by actively binding with them, reducing their damaging effects. Oxidized fats are fats that are adversely changed by aging, interaction with oxygen, and damage by free radicals. Consumption of oxidized or rancid fats is known to promote
cancer and heart disease.

**Key uses of vitamin E:**

- Practitioners have long prescribed vitamin E to support and protect the sexual and reproductive organs, but research doesn’t prove this theory. Vitamin E is sometimes referred to as the *virility vitamin* or *antisterility vitamin*.

- Used particularly for its antioxidant function in preventing degenerative diseases of the cardiovascular and neurological and respiratory systems. Vitamin E may also be an important protector against cancer.

**Where you can find it:** Vitamin E is a natural preservative found in vegetable oils, nuts, seeds, dark green leafy vegetables, and whole grains.

**How much to take:** Common levels of intake are 200 to 1,600 IU, with usual amounts about 400 to 800 IU.

**Too little or too much:** Toxicity is very uncommon, while deficiency makes you more susceptible to free radical damage from environmental and food chemical exposure. Vitamin E protects the tissues of your blood vessel linings and your sexual glands from damage by chemicals from the many pesticides, food chemicals, and inhaled toxins that you are exposed to.

Tocopherols [ta-COH-fer-alls] are the natural protective chemicals that actually make up what we call vitamin E. Make sure to choose vitamin E supplements that include *mixed tocopherols*, which are rich in a substance called gamma-tocopherol, rather than just alpha- or another single tocopherol. Recent research shows that this more natural form of vitamin E works much better in your body than do the less expensive synthetic versions.

**Vitamin K**
Vitamin K is composed of several substances, including the most common, phylloquinone (K-1). Vitamin K is essential to normal blood clotting. It is important in helping your bones develop normal bone structure and in correcting osteoporosis.

**Key uses of vitamin K:**

- Used commonly in newborns to support their initial blood clotting functions and in people with bruising and bleeding disorders.
- Helps counteract overuse of a blood-thinning medicine called Coumadin.

**Where you can find it:** Found naturally in leafy green foods, yogurt, eggs, and some oils, especially from fish; also made by human intestinal bacteria.

**How much to take:** About 300 mcg (from the diet and additional supplements) is the optimum daily intake of vitamin K.

**Too little or too much:** Toxicity is quite rare, but deficiency can lead to easy bruising and poor clotting of the blood.

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**To B or Not to B: The B Family Vitamins**

Like many families, the B-complex family has a rather co-dependent relationship — they need each other to perform efficiently. They commonly occur together in foods, but because your body doesn’t store them very well, it’s important to ingest them from food or supplements each day. The B vitamins help keep the nervous system tuned up and have a reputation as stress-busters and energy enhancers. Nutritionists often recommend taking a B-complex vitamin because the individual vitamins are so interrelated. They are each described below, however,
so that you can get to know them as individuals.

**Vitamin B-1**

The first B vitamin to be discovered and named (also called *thiamine*), B-1 supports your metabolism and brain function. One of its most important functions is to keep your nervous system healthy. Vitamin B-1 functions in glucose (sugar) metabolism, brain neurotransmitter production, and learning capacity in children.

**Key uses of vitamin B-1:**

- Clinicians use vitamin B-1 to treat nervous system disorders, such as Bell’s palsy, multiple sclerosis, and neuritis.
- Helpful for skin conditions and tissue healing after surgery.
- New studies show that thiamine supplementation might be helpful for preventing and slowing Alzheimer’s disease.

**Where you can find it:** Thiamine’s best sources are the coverings of grains like wheat, rice, and oats, so this vitamin is easily lost when foods are cooked and processed. B-1 is also found in vegetables, legumes, seeds, and nuts.

**How much to take:** Only 2 to 3 mg are required to prevent deficiency; however, 10 to 50 mg is probably optimum. Dosages from 25 to 50 mg are commonly used in supplements. If you consume alcohol, you rapidly deplete your B-1 supply, so you need to increase supplementation, as you also would if you are going through alcohol detoxification.

**Too little or too much:** Mild deficiency may lead to increased sugar craving. A more serious deficiency can lead to a condition called beriberi with fatigue, weight loss, and swelling. Toxicity is uncommon. (Your body can easily handle 200 to 300 mg without problems.)
**B-2**

This is the active B vitamin, also called *riboflavin*, that gives urine a yellow-green fluorescent color when it’s excreted through the kidneys — sometimes known as the “expensive” urine of vitamin takers. It functions as a co-factor, (a substance that assists another molecule with a certain function), which is really the active part of an enzyme, facilitating the production of energy from foods and supporting healthy skin, hair, and nails.

**Key uses of vitamin B-2:**

- Used in the formation and maintenance of eye tissues.
- Helps in treating stress and fatigue. This “energy vitamin” is helpful for relieving stress and is needed more by women taking estrogens (for birth control or menopause) or after antibiotic use. Vitamin B-2, used with pyridoxine, can also help lift the mood.
- Prevents some types of migraine headaches.
- Used to treat skin conditions.
- May help protect against bowel cancer.

**Where you can find it:** Found in small amounts in grains, fruits, and vegetables, riboflavin is higher in brewer’s yeast, liver, and oily fish like salmon.

**How much to take:** You need B-2 only in amounts of a couple milligrams a day, but supplements usually include about 15 to 50 mg.

**Too little or too much:** Too much riboflavin doesn’t appear to cause problems, but deficiency is common, especially in the elderly, and can cause a variety of ill effects from fatigue and skin rashes (dry, cracked skin at the corners of the mouth) to eye and nerve problems.
B-3

B-3, or niacin, named from nicotinic acid, is a vitamin found in and added to foods and is also used as a natural drug to lower cholesterol levels. Niacin is the most cost-effective and safe medication to lower the bad LDL cholesterol and increase the good HDL cholesterol in the blood, but you must take higher amounts than what is found in a typical multivitamin for such a therapeutic treatment. Side effects are possible but occur less frequently than with other current medications.

Niacin causes the famous facial or body flush, a hot flash that is unpleasant to some, through vascular stimulation in the small capillaries. These capillaries also release histamine — your body’s chemical signal to start an immune or infection-fighting process. When you release histamine, you get the typical allergy symptoms of itchiness, water release, swelling, or redness. The form of B-3 called nicotinamide doesn’t cause flushing, but it also doesn’t have the benefit of other niacin positives, like reducing histamine levels or lowering cholesterol.

Key uses of vitamin B-3:

✔️ The amino acid tryptophan, which functions in enzymes that are involved in more than 50 different metabolic reactions, is converted in the body to niacin. Vitamin B-6 is a cofactor in this reaction.

✔️ Used to help lower cholesterol and triglycerides in the blood.

✔️ Supports sugar metabolism.

✔️ Reduces allergic reactions.

Where you can find it: The best sources of niacin are peanuts, organ meats, poultry, and fish; it’s also found in legumes, whole grains, avocados, and dried fruits.
**How much to take:** Your body needs about 15 to 20 mg of vitamin B-3 daily, although common intakes in supplements are 25 to 50 mg, and therapeutic levels (especially for lowering cholesterol) go up to several grams (3,000 mg) daily. A new extended-release product is now available in capsules or tablets. Taking niacin regularly, and slowly, tapering up from 200 mg daily to a gram or two can help reduce the unpleasant flushing reaction. Have your liver enzymes checked every 4 to 6 months if you are taking these therapeutic levels of niacin.

**Too much or too little:** Niacin deficiency disease is called pellagra and is characterized by dermatitis, diarrhea, and dementia (brain dysfunction), and other common symptoms of B-3 deficiency. Toxicity is infrequent in reasonable doses, but you may experience liver irritation from higher amounts of time-released niacin products.

<table>
<thead>
<tr>
<th>LDL and HDL: The highs and lows of lipoproteins</th>
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<tbody>
<tr>
<td>LDL stands for low-density lipoprotein, the harmful portion of cholesterol, which appears to be a factor in the clogging of your arteries, called <em>atherosclerosis</em>. HDL stands for high-density lipoprotein, known as good cholesterol. The HDL molecule transports used cholesterol out of the blood stream and carries it back to the liver.</td>
</tr>
</tbody>
</table>

**B-5**

Vitamin B-5, known as *pantothenic acid*, is important to many body functions and is known as the antistress vitamin because it supports the adrenal glands. Besides giving the adrenals what they need to produce hormones, vitamin B-5, along with vitamin C, helps cells metabolize fats and carbohydrates release energy.

**Key uses of vitamin B-5:**
Used to treat stress and fatigue after surgery or during recovery from illness or injury.

May help prevent and treat some kinds of acne.

Taken along with vitamin C, vitamin B-5 can help strengthen skin and promote healing of cuts and increase the flexibility of scar tissue.

**Where you can find it:** Pantothenic acid comes from the Greek word *pantos*, meaning everywhere, because it is found in most foods. It’s also made by your intestinal bacteria. Particularly good sources include brewer’s yeast, egg yolks, fish, whole grain cereals, and dried beans. Good vegetable sources are sweet potatoes, green peas, cauliflower, and avocados.

**How much to take:** The minimum requirements are only about 10 mg daily, yet more common intakes are 100 to 500 mg daily.

**Too little or too much:** There is no known toxicity, but deficiency is somewhat common and can lead to fatigue, adrenal weakness, problems in blood sugar metabolism, and premature graying of the hair.

### B-6

Vitamin B-6, or *pyridoxine*, is often considered the most important B vitamin with its many life-supporting functions in metabolic reactions. Because it helps you to produce energy and feel energized, think of it as the good-mood nutrient.

**Key uses of vitamin B-6:**

- Participates as a co-factor in making niacin (B-6) from tryptophan.
- Needed for functions that turn food into energy, for protein metabolism, and for healthy nerves.
Pyridoxine and pyridoxal-5-phosphate, the active coenzyme, is used clinically for a wide variety of conditions — PMS, pregnancy and its associated nausea, carpal tunnel syndrome, problems of the nerves, water retention, and more.

**Where you can find it:** Vitamin B-6 is contained in small amounts in many whole foods, with higher amounts in wheat and organ meats (like liver). Many grain products are enriched with pyridoxine.

**How much to take:** Typical suggested amounts are 2 to 3 mg, or up to 200 to 300 mg for clinical uses.

**Too little or too much:** Some reported toxicity, which is rare, involves neuritis (nerve inflammation, often with pain) with high doses, such as 2,000 mg daily. Deficiency is much more common, causing problems with your nerves, skin, and energy level. B-6 deficiency is also associated with depression, fatigue, and other mood disorders.

**B-12**

This vitamin, also called *cobalamin*, is one of the more mysterious of the B vitamins. Known as the “energy” vitamin, not all of the B-12 functions are clear yet. This vitamin may be indirectly important in the production of neurotransmitters in your brain, such as dopamine and serotonin. These affect your moods, sleep patterns, and many other psychological functions.

**Key uses of vitamin B-12:**

- Functions in creating nerve coverings, called *myelin sheaths*.
- Supports your growth, appetite, and red blood cell production.
- Clinicians use vitamin B-12, often as injections, for a wide range of problems that affect your energy level, weight, and nervous system.
Where you can find it: B-12 is only found in animal-based foods, such as eggs, dairy products, fish, and meats. One exception is the fermented soy product tempeh, which is rich in natural fungi and yeasts. Some studies also show that strict vegetarians can produce vitamin B-12 with the help of bacteria in their lower small intestine. Nevertheless, if you’re a strict vegetarian, you should be attentive to your vitamin B-12 intake, and supplementation is sometimes useful.

How much to take: While only several micrograms (one milligram is 1,000 micrograms) are required to prevent deficiency, people often take up to a few milligrams without any toxicity, and some report feeling improved energy. Vitamin B-12 deficiency disease is called pernicious anemia, characterized by low red blood cell count, fatigue, and neurological problems.

Folic acid

A key B vitamin, folic acid comes from the Latin folium, meaning foliage, because this vitamin is primarily found in leafy green vegetables. You sometimes hear folic acid referred to as folate. Although folic acid is abundantly available in fresh, unprocessed food, it is commonly deficient in the Standard Adulterated Diet (SAD).

Key uses of folic acid:

- Folic acid, in the form of its co-factor tetrahydrofolic acid (THFA), is an important nutrient for many metabolic functions, such as red blood cell formation (with vitamin B-12), and protein and amino acid metabolism and utilization.

- A deficiency of folic acid has recently been linked to neurological birth defects, so it has recently been added to a variety of processed foods.

Where you can find it: Folate is found in spinach, kale, chard, and broccoli, as well as corn, legumes and bean sprouts, and wheat. Nutritional yeast is one of the best sources.
**How much to take:** Adults need up to 400 mcg and at least 800 mcg during pregnancy. More can be used, even up to 10 and 20 mg therapeutically, without toxicity. Deficiencies are relatively common for folic acid and can lead to anemia, fatigue, irritability, loss of appetite, and mental symptoms.

**Biotin**

Biotin is a secondary B-vitamin with some important roles in food metabolism, as well as your skin and hair health. It plays an essential role in the production of fatty and amino acids in your body. Although studies don’t verify it, some people say biotin helps keep their hair from turning gray.

**Key uses of biotin:**

- Functions in fat metabolism and in the synthesis of fatty acids in your body. Some people take it during weight reduction programs.
- Maintains healthy skin and hair.
- Diabetics take this supplement to help support fat and carbohydrate metabolism.

**Where you can find it:** Biotin is found in small amounts in many foods, including rice, yeast, and egg yolks; biotin is also made by your intestinal bacteria. You can increase your body’s intake of biotin with tasty foods like yogurt and the fermented soy product tempeh. These and other naturally fermented foods like sourdough rye bread contain the beneficial organism *Bifidobacterium*, a bacteria that can make biotin.

The recommended intake for biotin is about 150 to 300 mcg.

**Too little or too much:** Biotin is without known toxicity. Deficiency is not thought to be common either, but may occur after sulfa antibiotic treatment.
Choline

Choline, along with inositol, is one of the lipotropic factors, meaning it helps the body utilize and move fats between cells normally, especially in the liver. Lecithin from eggs and soy is a rich source of choline. Choline may not be a true vitamin, but it’s usually associated with the B vitamins. Choline is an important building block for acetylcholine, a vital substance in many nerves of the body that facilitates nerve transmission for brain functions and the movement of all muscles.

**Key uses of choline:**

- Taken as a supplement for neurologic disorders, such as Alzheimer’s disease, as well as for gallbladder and liver problems.
- Choline may help your liver cells regenerate more efficiently.

**Where you can find it:** Choline is found in lecithin, which is present in soybeans and other legumes. It’s also found in egg yolks, peanuts, leafy greens, yeast, and wheat germ.

- Your average needs are about 500 mg daily, while therapeutic levels may be higher at 1,000 to 1,500 mg daily.

**Too little or too much:** Toxicity is not known for choline, while deficiency may affect fat metabolism and cause fatty growths, especially in the liver.

Inositol

Inositol is another lipotrophic vitamin-like substance that is found in soy lecithin along with choline. Inositol is probably not a vitamin, but is still grouped with the B vitamins in many texts. Your body can create all the inositol it needs, so it’s unnecessary to get the substance from your diet. Not all the functions of inositol are known, but like choline, it is involved with the movement of fats from the liver to the cells.
Key uses of inositol:

- Used in the body to help fat metabolism.
- Helps prevent cardiovascular disease and viral infections.
- Supports healthy hair and skin.
- Some studies show a positive effect on mental alertness when patients with Alzheimer’s Disease are given doses of up to 6 grams a day.

Where you can find it: Inositol is found in whole grains, molasses, wheat germ, and nuts.

How much to take: Inositol has no known requirements, however, 500 to 1,000 mg is a therapeutic range.

Too little or too much: No clear concerns about toxicity or deficiency of inositol exist, although deficiency may be relevant to hair and skin problems, elevated cholesterol, and eye health.

PABA

PABA, also known as para-aminobenzoic acid, is actually incorporated into the folic acid molecule and is also made by the intestinal bacteria. PABA functions with the folic acid co-factor tetrahydrofolic acid (THFA) in protein metabolism, blood cell formation, and is important to your hair, skin, and intestinal health.

Key uses of PABA:

- Used to support healthy hair and to heal skin conditions, such as vitiligo, a depigmentation of the skin.
- PABA is commonly used in sunscreens, but concerns exist about its mutagenic (cancer-causing) effects, and some people are allergic to PABA.
Where you can find it: PABA is found in eggs, molasses, rice, yeast, and liver.

How much to take: No specific requirement is known, but a wide range, about 50 to 1,000 mcg, is considered a therapeutic dose.

Too little or too much: PABA may cause some irritation in high amounts while deficiency may contribute to fatigue, irritability, and digestive upset.

Vitamin C

An important nutrient from many fresh fruits and vegetables, vitamin C, or ascorbic acid, breaks down readily when foods are heated or when they sit around too long on the shelf. Vitamin C is one of the most popular of all supplements, thanks to the dedication of the Nobel-prize winning scientist Linus Pauling. Pauling took up to 25 grams of the vitamin every day for years. He ended up dying at 96 years of age but was still actively working and mentally sharp at the time of his death; he must have been doing something right.

Vitamin C is important for proper tissue strength and is known to support collagen and cartilage growth. It also helps protect cell membranes from toxic wastes and destruction from an overactive immune system. It acts as an antioxidant and is especially effective when taken with vitamin E. Vitamin C is used for allergies and as an anti-viral medicine. Regular use may reduce your risk of cancer.

Key uses of vitamin C:

- Promotes wound healing.
- Vitamin C is commonly used for supporting immune function and protection from viral disease and cancer.
It may also help in people with high cholesterol, cataracts, diabetes, allergies and asthma, and periodontal disease. As an antioxidant, it protects blood vessels and the lenses in your eyes, and helps keep body tissues strong.

Thanks to Linus Pauling, vitamin C is popular for warding off and shortening the unpleasant effects of the common cold.

**Where you can find it:** Ascorbic acid occurs naturally in citrus fruits, bell peppers, rose hips, tomatoes, strawberries, and many other fruits.

**How much to take:** The minimum requirement to prevent vitamin C deficiency, called scurvy, is 60 mg. Commonly taken in 500 to 1,000 mg doses, larger amounts, like 10 to 20 grams daily, may cause mild toxicity. Diarrhea is the most common side effect.

**Too little or too much:** Vitamin C is non-toxic because you eliminate excessive amounts through your urine. Some vitamin experts caution pregnant women not to exceed 1 or 2 grams a day.

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**The water-soluble vitamins: B-complex and vitamin C**

Water-soluble vitamins (meaning they dissolve in water) are less stable in foods and more easily lost in cooking and processing. They are required daily in sufficient amounts, and thus to be safe, additional supplements may be necessary. The B-vitamins are commonly added to enrich processed grains like breads and breakfast cereals.

The enrichment process for processed foods also enriches the manufacturer's bank account. In fact, it's a pretty neat trick to take whole foods like wheat, remove the nutrients, make products like bread and pasta, and then add synthetic vitamins back at an extra price. To enrich your own bank account and health, add more whole grains to your diet.
Bioflavanoids

Bioflavanoids are not really vitamins but are often associated with vitamin C. One bioflavonoid, or more correctly, simply flavonoid, is rutin, which is sometimes called vitamin P. The flavonoids are biologically active nutrients that include catechin, quercetin, rutin, and hesperidin. You find them in vitamin C-containing foods, such as fruits and vegetables. These beneficial chemicals support blood vessel strength and permeability and act as potent antioxidants to slow the aging process.

Key uses of bioflavonoids:

- Many flavonoids, such as quercetin and catechin, act as anti-inflammatories and anti-histamines that help to reduce allergic responses.
- Flavonoids are also known to discourage viral replication, and they also act as antioxidants to protect your cardiovascular system and other tissues.

Where you can find it: Common sources include the white rinds of citrus fruits and many fresh fruits and vegetables, including green leafy vegetables like collard greens and kale, as well as grapes, cherries, and berries. Soy and green tea are also good sources.

How much to take: No RDA (recommended daily allowance) exists for bioflavonoids, but some should be taken along with vitamin C. Mixed bioflavonoids in the amount of 50 to 500 mg are commonly available in capsules and tablets.

Too little or too much: Toxicity is not known, while deficiency may weaken your blood vessel walls, contributing to varicose veins and making your body tissues more prone to swelling.
Chapter 4
Minerals — Mining the Earth’s Nutrients

In This Chapter
- Understanding the importance of minerals for optimum health
- Finding the best dietary sources and supplements for minerals
- Figuring out how to use mineral supplements to ease symptoms of common ailments
- Avoiding heavy metal — without using earplugs

Minerals are elements from the earth that are required, or essential, in human nutrition, because they aid in a variety of the body’s functions. The plants and animals you consume absorb these nutrients — everything from calcium and iodine to iron and zinc — from the soil and water, and in turn, pass them on to you. Your body does not manufacture any of these minerals, so you need to get them regularly from your diet and from nutritional supplements. You store some minerals, such as bone calcium and phosphorus, and your body may retrieve them when it needs them to maintain your blood and tissues. Current aggressive agricultural practices commonly deplete the soil of minerals, so you may not obtain these essential nutrients from your food. When this happens, you can become mineral-deficient. Growing children and adults who are chronically deficient in minerals may experience problems in sexual maturation (due to zinc deficiency), bone strength (resulting from calcium and phosphorus deficiency), anemia (stemming from iron deficiency), or thyroid dysfunction (because of iodine deficiency), to name only a few.
In this chapter, we provide you with a handy table (Table 4-1), highlighting the major functions of minerals and the roles they play in your body. We also go into detail on each of the minerals, breaking them down into three categories — macrominerals, trace minerals, and heavy metals — and tell you what each mineral does for your body, where you can find them in foods, and how much of the mineral you should have every day. You want minerals? You’ve come to the right place!

Using Minerals to Improve Body Functions

Minerals play a crucial role in supporting many body functions, and in Table 4-1, you can see which minerals you should take to maintain specific functions. Turn to Chapter 1 to see which vitamins have a beneficial effect on individual body functions.

<table>
<thead>
<tr>
<th>Body Function</th>
<th>Key Minerals</th>
</tr>
</thead>
<tbody>
<tr>
<td>Supports bone health; reduces cramps</td>
<td>Calcium</td>
</tr>
<tr>
<td>Relaxes muscles and blood vessels; helps with sleep</td>
<td>Magnesium</td>
</tr>
<tr>
<td>Improves cell and nerve conduction, heart regularity, and electricity</td>
<td>Potassium</td>
</tr>
<tr>
<td>Boosts immunity; acts as an antioxidant; helps prevent cancer</td>
<td>Selenium</td>
</tr>
<tr>
<td>Provides immune support; controls sexual development and many enzyme systems</td>
<td>Zinc</td>
</tr>
</tbody>
</table>

The Macrominerals
Science calls the most important minerals, the ones that the body needs in abundance, *macrominerals*. Although you find minerals like carbon, hydrogen, oxygen, and nitrogen at even higher amounts in your body than these macrominerals, these four substances make other tissues, cells, and biochemicals. In this section, we cover the macrominerals in depth, providing you a dosage guide for each of the minerals so that you can incorporate them into your own diet.

**Calcium**

Calcium is one of the most important minerals in your body and is essential for maintaining its structure — the formation and maintenance of bones and teeth. The strength of your bones depends directly upon the calcium and other minerals like silicon and magnesium that you absorb, particularly during your years of growth and development. Calcium is also important for nerve conductivity, for muscle contraction (including normal heartbeats), and for cell division. Also, the cells of your body require calcium, along with magnesium, to properly transmit nerve impulses.

**Key functions of calcium:**

- May promote a sound night’s sleep when taken before bed.
- Supports bone health, especially if you are a woman during and after menopause, for prevention and treatment of *osteoporosis* (the increased porosity of bones common during aging).

  Osteoporosis commonly leads to fractures and even mortality. The risk increases in women, especially during the first ten years after menopause. We recommend consulting your doctor to determine your bone strength and begin a complete bone-strengthening supplement program.

- Reduces muscle cramps and menstrual cramps.
- Prevents tooth decay.
**Where you can find it:** Good calcium sources, some of which are shown in Figure 4-1, include cheese and yogurt, sardines (with bones), broccoli, peas, leafy greens (such as kale), almonds, Brazil nuts, sesame seeds, tofu, soymilk, blackstrap molasses, dried figs and apricots, and corn tortillas (with added lime).

**How much to take:** You can take 800–1,000 mg, whether you’re a man or a woman. For pregnant, lactating, or postmenopausal women, the suggested daily dosage is 1,200 mg.

Calcium is absorbed and utilized better when taken with vitamin D and magnesium, when your stomach has an adequate acidity level, when accompanied by regular exercise, and after protein intake, as well as when taken at bedtime along with some ascorbic acid, such as vitamin C.

Calcium supplements are available in many forms — tablets, capsules, chewables, powders, and liquids — many in the form of mineral salts, such as calcium carbonate, calcium gluconate, and calcium citrate. Some, such as calcium citrate, are absorbed better than others, so check the label or ask an employee if the product you’re buying contains calcium citrate.

**Too little or too much:** Toxicity is most likely to occur when you have magnesium and/or phosphorus deficiency. Calcium toxicity can lead to increased calcification, which is a factor in *atherosclerosis* (hardening of the arteries and the cause of most cardiovascular disease), kidney stones, and other stone formations. Calcium deficiency is more
common than an overdose of calcium, and a deficiency can cause weak and porous bones, decay and loss of teeth, abnormal heartbeats, and rickets (a disease affecting children, in which a calcium deficiency results in soft, porous, and deformed bones).

**Magnesium**

Magnesium may be the most commonly deficient mineral in human nutrition. Because it is the calming or anti-stress mineral, it’s very important to many human functions.

**Key functions of magnesium:**

- Relaxes your muscles, including the heart.
- Works in concert with enzymes to carry out metabolic functions, including protein synthesis, energy production, and neuromuscular function.
- Used for poor sleep, anxiety, menstrual cramps, muscle cramps or spasms, high blood pressure, asthma attacks, and abnormal heartbeats.

**Where you can find it:** You find magnesium mostly in plant foods — grains, legumes, vegetables, nuts, and seeds — although seafood is also high in this mineral. Dark green vegetables are a particularly good source of magnesium. A fascinating parallel exists between plant chlorophyll, the magnesium-rich green pigment that turns sunlight into usable energy that the plant then stores as sugar, and human hemoglobin. Hemoglobin is a similar chemical molecule in the red blood cells of animals that contains iron, instead of magnesium. Hemoglobin is essential for carrying oxygen to all the cells and tissues of your body.

**How much to take:** Take magnesium along with calcium at a minimum of a 1 to 2 ratio of magnesium to calcium. The required daily dosage of magnesium for adults is 350 mg, and you need more for therapeutic use (up to 600 or 700 mg daily).
Too little or too much: Because the body easily eliminates excess magnesium, toxicity is nearly unknown, although excess magnesium can often cause loose stools or diarrhea. Deficiency is quite common and can lead to muscle cramps, calcification problems, fatigue, irritability, and insomnia.

**Phosphorus**

Phosphorus is the second most abundant mineral in the body, after calcium. This mineral is part of all cells, especially cell membranes, and is essential to bone strength, because it’s the main structural component of bones and teeth, as calcium phosphate. Phosphorus is also an important element in energy production.

**Key functions of phosphorus:**

- Functions in bones and teeth and in cell energy production. Your main energy-storage molecule, adenosine triphosphate (ATP) contains phosphorus.

- Helps synthesize protein and is part of phospholipids (fat molecules), such as lecithin, which cells use to make membranes.

**Where you can find it:** Almost all foods contain phosphorus, but the amounts of phosphorus are greater in animal products and high-protein foods like meats, fowl, fish, eggs, and dairy. Nuts, seeds, and many vegetables are rich in phosphorus as well.

**How much to take:** Phosphorus is a required mineral. Adults need about 800 mg daily.

Sodas and other drinks containing phosphoric acid may cause excessive amounts of phosphorus intake, which can interfere with proper calcium metabolism. The optimum calcium to phosphorus ratio is approximately 1:1, but in the average American diet, that ratio commonly varies between 1:2 and 1:4.

**Too little or too much:** Phosphorus deficiency and toxicity are not
very predominant; excesses of phosphorus may alter calcium balance, and phosphorus deficiency may lead to energy and metabolic problems.

**Potassium**

An important mineral contained mainly within cells, potassium helps to balance and interact with sodium in controlling blood pressure and supporting electrical impulses across cell membranes. It’s also a major player in your body’s utilization of energy.

**Key functions of potassium:**

- Regulates water and acid-base balance in your body.
- Supports the electrical energy action generated by the sodium and potassium “pumping” movement of electrons across cell membranes.
- Prescribed medically when people take diuretics for high blood pressure or water swelling.
- Used as a nutritional supplement in lower amounts for balancing sodium.
- Used for muscle cramps and twitches and for reducing the risk of heart disease.

**Where you can find it:** Potassium is best obtained from fruits and vegetables, such as leafy greens, potatoes, citrus, and bananas, as well as from whole grains, wheat germ, nuts, and seeds.

**How much to take:** You need at least 2 grams (or 2,000 mg) of potassium a day, which is fairly easy to obtain from your diet.

**Too little or too much:** Toxicity can result from improper kidney function and can be serious. Deficiency is more common and can cause fatigue, elevated blood pressure, and abnormal muscle contractions.
Deficiency can occur quite easily if you have persistent diarrhea, or if you consume excessive amounts of salt.

**Silicon (Silica)**

Important for tissue strength, silicon, usually referred to as silica, is the most commonly found element in the earth’s soil and in foods. It gives strength and firmness to the body tissues — the bones, cartilage, connective tissues, arteries, and skin. This mineral is well worth a try if you’re trying to help heal fractures.

**Key functions of silica:**

- Supports and strengthens your skin, hair, and nails, as well as the joints and connective tissues.
- Helps your arteries maintain flexibility and may, therefore, be helpful in the prevention of cardiovascular disease.

**Where you can find it:** Silica occurs in plant fibers, so some is available from whole grains, particularly the hulls of wheat, oats, and rice. You can also find silica in vegetables (such as beets, lettuce, cucumbers, and onions) and in herbs (such as horsetail and oatstraw).

**How much to take:** No official requirement for silicon exists. You may take from 50–100 mg or 500–1,000 mg daily. Horsetail herb extract is a good source and is available in capsules or tablets.

**Too little or too much:** Toxicity and deficiency are both uncommon. Scientists are still studying silica’s effects on human health.

**Sodium**

Sodium is an important part of common table salt, in the form of
sodium chloride. Sodium, along with potassium and chloride, are the main mineral ions (minerals with an electric charge) that strongly influence the movement of fluids in and out of all of your body’s cells. Almost all foods contain some sodium.

**Key functions of sodium:**

- Essential to cell function, acid-base buffering, and electrical conductivity in the body.
- Used primarily for sweat replacement in athletes.

**Where you can find it:** Sodium is found naturally in ocean seafood and seaweed, as well as in many vegetables. The popular over-consumption of salt comes from its addition to many foods in the kitchen, at the table, and in salty snacks, such as chips and crackers, that are so prevalent in western societies. The average American consumes about 15 pounds of salt from processed foods per year. Monosodium glutamate (MSG) is also another source of sodium.

High salt intake can increase your risk of high blood pressure and stroke. Here are some foods to especially avoid, because they are extremely high in salt (the amount of salt per 100 grams of the food is listed in parentheses):

- Olives (3,200 mg)
- Pretzels (1,700 mg)
- Catsup (1,000 mg)
- Bacon (1,000 mg)
- Tuna, canned in oil (800 mg)
- Cheeses (700 mg)
- Whole wheat bread (500 mg)
- Beans, canned (250 mg)

**How much to take:** You only need about 2 grams (or 2,000 mg)
of sodium daily, yet most people consume more. For maximum health, you need to be sure to avoid excess salt and sodium intake.

**Too little or too much:** Toxicity may affect blood pressure and kidney function. Deficiency can cause fatigue, water retention, insomnia, and other symptoms. Elevated levels of sodium in the diet contribute to water retention, elevated blood pressure, and kidney and cardiovascular disease.

### Sulfur

Sulfur is an important part of several amino acids (the building blocks of protein), especially methionine and cysteine. It helps the body resist bacteria, cleanses the blood, and protects the protoplasm of cells.

**Key functions of sulfur:**

- Important in enzyme reactions and protein synthesis. It is a major component of substances that occur around body cells and in cartilage and skin, where they serve a protective and structural function. Sulfur is an important part of the substances that support tissues in the body. These substances, such as glucosamine or chondroitin sulfates, are used to help joint and arthritis pain.

- A major component of one of the main antioxidant protectors called glutathione. Sulfur is a component of various enzymes that help the body eliminate and deactivate many kinds of toxins.

- Used over the centuries in skin salves for treating the skin parasite scabies and for psoriasis and eczema.

- Used today for treatment of allergies and joint problems, such as arthritis.

**Where you can find it:** Sulfur occurs primarily in protein foods, including eggs, milk products, meat, and fish. It is also found in some legumes and in some of the more odiferous vegetables,
such as onions, garlic, cabbage, brussel sprouts, and turnips.

**How much to take:** Although there is no official minimum sulfur requirement, you should take sulfur in an amount of 500–1,000 mg a day.

**Too little or too much:** Not much concern exists for sulfur deficiency or toxicity; you can easily get adequate amounts from your diet.

### The Trace Minerals

The essential *trace* minerals are also extremely important for human health and must be obtained from your diet or from supplements. Trace minerals occur in the soil, in foods, and in your body at much lower levels than the macrominerals, so they become more easily depleted. When deficiencies occur — and deficiency is much more common than toxicity — important metabolic functions like blood sugar regulation, or specific substances and enzymes in the body, will not work properly. Examples include iodine needed for thyroid production, iron for red blood cell hemoglobin production, and zinc for proper immune function.

Because of the importance of trace minerals for optimum health, note that some diseases, activities, foods, and drinks can increase your risk of trace mineral deficiency. Diseases and conditions to watch out for include parasitic infections, ulcers and diverticulitis (with chronic blood loss), liver disease, burns, chronic inflammatory bowel disease, and weak digestion. Remember, too, that if you live in a hot climate or are physically active, excessive sweating and taking diuretics can increase the loss of many trace minerals.

### Boron
Boron recently gained popularity after researchers found that it helps the bones use calcium. Increased boron levels in the soil have been associated with a lower risk of osteoarthritis.

**Key functions of boron:**

- May act on the parathyroid glands to regulate calcium, magnesium, and phosphorus balance.
- Used to prevent bone loss. Boron is a common ingredient in bone-supporting formulas along with calcium.

**Where you can find it:** If boron occurs in sufficient levels in the soil in which food is grown, the mineral will be in abundance in whole foods, such as apples, grapes, nuts, legumes, and leafy greens.

**How much to take:** You need about 1 mg of boron daily from your diet, but 3–5 mg may be more helpful as a supplement, particularly for the elderly.

**Too little or too much:** Toxicity of boron is unknown. Boron deficiency, which may occur with a low consumption of fruits and vegetables, may affect bone and calcium metabolism and lead to osteoporosis in the elderly.

**Chromium**

The average American diet is deficient in chromium due to its scarcity in this country’s food and water supply, as well as the abundantly available junk foods and white sugar and flour.

**Key functions of chromium:**

- Helps insulin facilitate the entrance of glucose into your cells and is a requirement for energy.
- May influence cholesterol levels by improving its metabolism.
Crucial to blood sugar and cholesterol metabolism and has become popular in weight loss programs. You can use chromium to support glucose metabolism if you have diabetes or hypoglycemia (low blood sugar).

Where you can find it: Brewer’s yeast and nutritional yeast are the best sources of chromium, which does not occur in large amounts in most foods. You do get some of this mineral by eating whole grains, wheat germ, meat, cheese, potatoes (with skins), and dried beans, as well as vegetables grown in chromium-rich soil (although chromium-rich soil is rare in the U.S.).

How much to take: Although no specific daily requirement exists for chromium, people need at least 50–100 mcg of chromium daily. However, the average intake from food is commonly only 10 mcg daily, so supplements may be necessary.

Chromium is an essential nutrient to help your body process carbohydrates efficiently. Chromium deficiency is likely if you obtain most of your grains in the form of breads, pastas, and baked goods. The modern taste for refined foods and lowered intake of chromium may be one reason why it has become an extremely popular supplement today. Chromium may help you lessen sweet cravings, improve metabolism for maintaining ideal weight, and help with cardiovascular problems.

Too little or too much: Chromium toxicity is rarely found other than after exposure to toxic metallic chromium; for instance, in industrial wastes. Nutritionally, chromium is a common deficiency, which may inhibit proper sugar metabolism.

Copper

The zinc-balancing mineral, copper, is important in many enzymes as well as in the production of hemoglobin, the molecule that transports oxygen. It also plays a role in the functioning of the prostate gland and the activity of the oil glands, helping prevent acne. Nerves and joints
require copper for healthy functioning.

**Key functions of copper:**

- May lower cholesterol levels.
- May improve symptoms of arthritis.

**Where you can find it:** The highest concentration of copper is found in oysters. It is also available from nuts and seeds, whole grains and legumes, and in small amounts in most vegetables.

**How much to take:** Copper is usually found in multivitamins at a dosage of 1–2 mg per day. Take additional copper if you’re consuming a higher level (50 mg) of zinc for therapeutic purposes. Work with your practitioner to balance your copper and zinc intake.

**Too little or too much:** Copper toxicity can come from water when it flows through copper pipes, and copper can be found in well water. Too much copper intake can cause various neurological and mental symptoms. Copper deficiency is not uncommon and often joins with iron deficiency in anemia. Copper deficiency can cause symptoms of fatigue, skin rashes, and hair loss, and can contribute to a decrease in the ability to taste and smell.

**Fluoride**

Many cities in the U.S. add fluoride to the municipal water supply to prevent tooth decay, and many toothpastes contain it as an additive; but this use is somewhat controversial. The mineral does have toxicity concerns and is associated with increased cancer risk.

**Key functions of fluoride:**

- Bonds with dental and bone calcium as calcium fluoride, which protects the teeth from decay and may strengthen the bones.
Used as part of a dental hygiene program in vitamins and toothpaste, and as fluoride treatments.

Used experimentally for improving osteoporosis.

**Where you can find it:** Sodium fluoride naturally occurs in seawater, and thus, in seafood. Typically, we consume most of our fluoride from fluoridated tap water and toothpaste.

**How much to take:** Most people probably consume about 1–2 mg of natural fluorides per day. With added fluoridated water and toothpaste, this level can be too much, so supplements aren’t necessary.

**Too little or too much:** Toxicity is of great concern worldwide. (The U.S. is the only industrialized country still fluoridating its water.) Deficiency may not truly exist, although it appears the absence of fluoride may predispose you to tooth decay.

## Iodine

Iodine was the most common mineral deficiency in many areas of North America before the introduction of iodized salt. During the 1930s, a lack of this mineral in the soil in the midwestern states caused many people to develop *goiters*, an enlargement of the thyroid gland. Iodine deficiency in children can lead to mental retardation.

**Key functions of iodine:**

- Used by the thyroid gland to make thyroid hormones, which control metabolic rate and body temperature.
- Supports other biochemical reactions.
- Used as potassium iodide for bronchial congestion and to rebalance the body and support immune function.

**Where you can find it:** Iodine occurs in seawater and thus most seafood and seaweed, including kelp. It is also found in
vegetables (as long as it occurs naturally in the soil) and in milk (if farmers add it to the cow’s feed).

**How much to take:** Iodine is a required nutrient in the amount of 150 mcg per day for adults. This supply is adequate, especially if you consume processed foods with added iodine-containing salt or add it to your food.

**Too little or too much:** Toxicity is uncommon unless people consume excessive salt or kelp tablets. Deficiency can cause low thyroid function and thyroid swelling (goiter), although this is less common than it was in the past.

**Iron**

An extremely important mineral for general well-being and energy, iron is the essential element within the hemoglobin molecule, which carries the oxygen in every red blood cell.

To enhance iron absorption from your foods, add lemon juice or vinegar or take vitamin C. Avoid tea and carbonated water. Also, remember that vegetable-based iron foods, such as spinach and whole grains (which are high in a chemical called phytate), have a lower absorption rate than beef, for example, which has the iron bound into the protein tissues. A low-protein diet will also reduce utilization of iron.

**Key functions of iron:**

- Functions in hemoglobin in the blood and in *myoglobin*, a molecule that supplies oxygen to muscles.
- Used medically to help your body rebuild red blood cells, especially after blood loss.
- Used as a crucial supplement during pregnancy.

**Where you can find it:** Iron occurs in high amounts in liver and
red meats. Vegetable sources include leafy greens, nuts, and seeds. Iron is especially abundant in pumpkin and sunflower seeds, raisins and prunes, and wheat germ and bran.

**How much to take:** The average child or woman needs 15–20 mg of iron per day, and men need only about 10 mg or less. Pregnant and nursing women need about 50–60 mg per day. We recommend obtaining as much iron from your diet as possible. A small amount of iron (5–10 mg per day) is generally safe to take in supplement form, depending on your diet and individual needs. You may also need to take more iron if you experience heavy blood loss.

Ask your doctor if you’re not sure whether you need to add iron to your daily supplement regime.

**Too little or too much:** Although iron is extremely important for growing children and all women in menstruating years, it can be toxic in men as well as in women who don’t have regular menstrual periods. Some scientists think that too much iron increases the risk of heart disease and some infections. Supplementation and dietary iron should be determined based on individual body needs.

**Lithium**

Lithium is a metal found in the soil and used medically in the treatment of manic depressive disorders. Scientists are uncertain whether the mineral is a required nutrient or whether a lithium deficiency can lead to mood disorders.

**Key functions of lithium:**

- May have a relationship to brain and mood functions, such as the mood swings of manic depression.
- Used in high amounts to treat manic depression and in low amounts nutritionally to balance moods or milder forms of manic depression.
depression.

Sometimes used in the treatment of alcoholism.

**Where you can find it:** Lithium occurs in many foods, if the soil in which they are grown is rich in the element. Some mineral waters and seaweed also contain this mineral.

**How much to take:** Although no specific requirement is now known, most people probably take in about 2 mg daily from their diets. Natural treatments for mood-balancing effects with lithium orotate are at about 10 to 30 mg daily, and medical treatments under the supervision of a physician or psychiatrist are usually at about 1,000 to 1,500 mg per day, available with a doctor’s prescription only.

**Too little or too much:** Scientists do not consider lithium deficiency a major concern. Toxicity only appears to happen in people taking prescription lithium, which can cause a variety of problems.

**Manganese**

Often confused with magnesium, manganese is a trace mineral that is important in many enzyme systems in your body.

**Key functions of manganese:**

- Activates many enzymes in cell metabolism.
- Helps your body utilize a number of vitamins, such as thiamine, choline, and vitamin C.
- Helps with protein and amino acid digestion and utilization.
- Used therapeutically to correct deficiency and to balance zinc and copper.
- May help blood sugar levels in diabetes and may improve neurological disorders.
Where you can find it: Nuts, seeds, and whole grains are the best sources of manganese. Peas and beans also contain some of this mineral.

How much to take: We recommend you take about 3–5 mg of manganese daily, although there is no official recommended daily allowance (RDA). Taking from 10–20 mg corrects any deficiency and causes no side effects.

Too little or too much: Neither deficiency nor excess of manganese poses much of a problem. It is non-toxic in doses below 50 mg, and deficiency is extremely uncommon. People do need this nutrient for bone maintenance, particularly during menopause.

Molybdenum

Molybdenum is an unusual trace mineral that has only a few specific functions that scientists have identified to date.

Key functions of molybdenum:

✔ Helps to metabolize carbohydrates.

✔ Produces uric acid (a breakdown product of proteins), which has some antioxidant properties.

✔ Detoxifies sulfite, which can cause allergic reaction and other aspects of toxicity, in foods.

✔ Occasionally prescribed for asthmatics who have difficulty in metabolizing sulfites.

Where you can find it: The molybdenum in your food is dependent on soil levels where the food is grown and occurs in whole grains, legumes, and vegetables.

How much to take: Vitamin manufacturers often add molybdenum to supplements in the range of 100–300 mcg daily.
**Too little or too much:** Experts do not know a lot about molybdenum toxicity or deficiency, but health problems show up with both of these in some animal studies. Toxicity may affect growth and weight; deficiency may limit the functions of this mineral.

**Selenium**

Selenium is an important antioxidant and cancer-prevention mineral that varies in availability depending on its content in soils in different areas of the world. You can find it in foods grown in selenium-rich soil. Areas that have higher levels of selenium in the soil, such as the Midwest, appear to have lower cancer rates.

**Key functions of selenium:**

- Functions as part of your important detoxifying systems, especially in the enzyme glutathione peroxidase, which helps humans break down toxic chemicals.

- Works well with vitamin E to protect you from free radical damage. Think of selenium as an important part of an anticancer or cancer prevention program.

**Where you can find it:** Yeasts, wheat germ, rice, and other whole grains like brown rice contain selenium.

**How much to take:** An intake of about 200 mcg of selenium is the right daily level; up to 400 mcg is safe.

**Too little or too much:** Selenium toxicity does exist and occurs more with elemental selenium and sodium selenite than with the protein-bound selenomethionine that is included in some nutritional supplements. Selenium deficiency is common, especially in the U. S. Deficiency may predispose you to cancer, cataracts, and cardiovascular disease.
Vanadium

This little known mineral may actually be required for maintaining health, although no clear scientific proof of this exists at present. Bones and teeth may use vanadium as a building material. Vanadium also plays a role in blood sugar balance and cardiovascular function.

**Key functions of vanadium:**

- May help reduce the production of cholesterol.
- May help your body with sugar metabolism.
- Sometimes recommended in some nutritional treatment programs for diabetics and those with cardiovascular disease.

**Where you can find it:** You can find vanadium in vegetable foods, when it is present in the soil in which they are grown. Vanadium is found in grains, as well as in carrots, cabbage, mushrooms, parsley, and other vegetable foods.

**How much to take:** No RDA for vanadium exists. The average person may consume 2–15 mg daily, and therapeutic levels are about 15–25 mg daily. Even higher amounts are sometimes used for diabetics (as much as 50–100 mg daily).

**Too little or too much:** Vanadium appears to be nontoxic, and the consequences of deficiency are unknown. Excesses of vanadium have been associated with manic depression.

Zinc

Zinc is thought by many nutritionists to be *the* most important mineral supplement because it is commonly deficient in the diet and is essential to so many enzyme systems and for normal functioning of the immune system.
Key functions of zinc:

- Functions in a multitude of enzymes — for alcohol and amino acid metabolism, protein digestion, and energy production, as well as in immune function and in the body’s fight against damaging free radicals.

- Used by men to support good prostate and reproductive health.

- Particularly important for teenagers during sexual development.

- Used to support optimum immune function. Zinc lozenges are famous, with some good clinical studies to their credit, for helping your immune system fight off colds and sore throats and recover from injury, illness, or surgery.

- May protect you against the toxic effects of chemical exposures.

Where you can find it: Adequate amounts of zinc are not always easy to get from your foods. This important nutrient is as important for good plant health as it is for human health. Zinc, like most other minerals, needs to be abundant in healthy soil for plants to absorb it and for your food to supply you with an ample amount. Zinc is found in oysters (which have the highest zinc content by far), shellfish, meats, eggs, whole grains, nuts, and seeds. Pumpkin and squash seeds are especially good sources.

How much to take: Normal supplementation is about 15–30 mg daily in men and 10–20 mg in women; you can use more zinc temporarily, to correct deficiency. Remember to take copper (2–3 mg) and manganese (5–10 mg), if you increase your zinc intake.

Zinc is the immune nutrient. It is important for proper T cell and natural killer cell function and proper lymphocyte activity. Zinc may be directly involved in antibody production to help you fight infection.

Too little or too much: Zinc can cause toxic reactions in your body, such as abdominal pain, nausea, and vomiting, when you take too
Deficiency is somewhat common and can cause more infections and a weakened immune function, delayed sexual development in boys and girls, and prostate problems in men. Other common symptoms of zinc deficiency include loss of appetite, impaired senses of smell and taste, growth retardation, delayed wound healing, depression, impaired concentration, nervousness, night blindness, and slowed nail and hair growth.

**Heavy Metals — Something to Listen To**

Many minerals are abundant in food and essential for life. Other minerals are toxic even in tiny amounts, leading to nerve dysfunction and memory loss, a weakened immune system, and even kidney damage. Heavy metal is not just a kind of super-loud music. Heavy metals are real trace elements found in industrial wastes, fillings in your teeth, fish and sea products, and in the paint of most houses and buildings — and they can cause you serious harm.

You may not be aware of it, but you carry around a fair amount of toxic lead in your tissues. Much of this lead, now known as a *lead burden*, came from the leaded gasoline fuels that were so common in former years. And a burden it is. Lead is a major concern, especially in children, because it affects learning and behavior. Mercury toxicity has become more prevalent as our waters and most fish are now contaminated. If you have fillings in your teeth, you are probably absorbing some toxic mercury right in your mouth. Researchers have linked aluminum with reduced mental function and Alzheimer’s disease. One good screening method for the body’s accumulation of toxic metals is a hair analysis. Blood assessment may show more recent exposure, but most metals leave the blood to deposit themselves in your
tissues in 24 to 48 hours.

**Aluminum**

Found in underarm deodorants, certain cookware, and foil, aluminum occurs in the earth and naturally in foods, but excessive amounts can be a problem. Heating acidic foods, such as tomato sauces, in aluminum cookware or foil can allow high amounts of aluminum to get into your food. Aluminum is also an ingredient in antacids, baking powders, and salt.

**Key problems associated with aluminum:**

- Linked to Alzheimer’s disease and other senile dementia, aluminum deposits have been found in the brains of people suffering from these mental disorders. It may be that certain forms of aluminum cause more problems. Natural aluminum, in the 40–50 mg you may ingest daily in food, may not be a culprit. The aluminum additives in salt and baking powders, and through the skin from deodorants, may lodge in body tissues and potentially cause some problems in the brain and with certain enzymes.

- Besides the mental problems from aluminum, toxicity may cause skin rashes, intestinal upset, and harm the bones and kidneys.

**How to avoid aluminum toxicity:** The best way to prevent aluminum toxicity is to avoid regular exposure to aluminum-containing products, such as antiperspirants, antacids, and cooking in aluminum foil and cookware.

**Arsenic**

Not as big a toxin as formerly thought, you may be exposed to excessive amounts of arsenic through ocean food as well as through
weed killers and insecticides. Arsenic is also found in the soil, and some arsenic, therefore, is contained in foods.

**Key problems associated with arsenic:**

- Your kidneys eliminate arsenic from your body, but excess amounts may adversely affect the kidneys, the heart, and the blood cells as well.

- Small amounts of arsenic may even be essential to human health, but more research is necessary to verify this.

**How to avoid arsenic toxicity:** To avoid arsenic toxicity, stay away from insecticides and weed killers that contain arsenic. In addition, if you drink well water, check to make sure it doesn’t contain any significant levels of arsenic or other toxic metals. Most communities have a water-quality department that can test your water for you.

**Cadmium**

Exposure to cadmium comes through cigarette smoke, certain paints, water, coffee, tea, and contaminated foods, specifically refined grains. Cadmium occurs in the earth, commonly along with zinc mining. It may interfere with zinc functions in the body, affecting immunity, prostate health, and bones.

**Key problems associated with cadmium:**

- Cadmium causes mild to moderate toxicity in humans and may affect the kidneys and blood pressure, because it is a factor in hypertension. This heavy metal is not as toxic as lead and mercury, because cadmium does not appear to get into the brain.

- *Chelation therapy* (an intravenous vitamin therapy to pull metal from body tissues) and zinc supplements can reduce cadmium toxicity. Copper, iron, selenium, and vitamin C can help eliminate cadmium as well.
How to avoid cadmium toxicity: To prevent cadmium toxicity, avoid exposure to cigarette smoke, contaminated seafood, and refined foods, while maintaining good levels of zinc in the body.

Lead

Lead toxicity may have contributed to the fall of the Roman Empire. Lead consumption leached from water pipes is thought to have made for some very crazy behavior. To defeat the Goths and Huns, the Romans really needed to get the lead out.

Lead is still a major concern today, especially for children. Exposure to lead is common from old paints, contaminated water and foods, as well as from cosmetics, pottery, soldered cans, and gasoline. Fortunately, for your health and the health of your children, exposure from paint, gas, and kitchenware has lessened with changing legislation banning leaded fuels and paints over the last 20 years.

Key problems associated with lead:

✔️ Because lead gets into the nervous system and brain, it can cause learning and behavioral problems in children as well as adults, affecting attention span, memory, hyperactivity, and general learning capacity. Lead toxicity can also cause muscle pains, poor appetite, headaches, anemia, and problems with appetite and digestion. It also acts as an immunosuppressant.

✔️ Treatment of lead toxicity requires EDTA chelation therapy or other chelating agents. See your doctor for an assessment of your metal toxicity and to discuss chelation therapy.

How to avoid lead toxicity: Prevention involves avoiding exposure and maintaining adequate calcium and zinc levels. A high-calcium diet can reduce lead absorption, and increased vitamin C intake may enhance lead elimination. You can gain some protection with adequate
intake of calcium, iron, zinc, copper, and vitamin C. These nutrients prevent lead from getting into the body.

**Mercury**

The new leader over lead as the most widespread neurotoxin in modern society, and the one causing the most concern, mercury (the beautiful, shiny quicksilver) is found in nearly all seafood as well as in dental fillings, cosmetics, pesticides, and fungicides. Both hair and blood analysis offers a screening for body mercury levels.

**Key problems associated with mercury:**

- Serious problems can result from acute mercury poisoning. However, most of the concern is with slow, chronic exposure, which can cause generally poor health with headaches, fatigue, loss of appetite and other gastrointestinal upset, loss of sex drive, and poor memory and other neurologic symptoms.

- Treatment of mercury toxicity may require the same kind of chelation therapy used to treat lead toxicity. Mercury is difficult to eliminate from brain tissue. Increased intake of vitamin C, selenium, and the fibers pectin and alginate (from seaweeds) can lower absorption and help eliminate mercury from your body.

**How to prevent mercury toxicity:** Prevention of mercury toxicity involves avoiding exposure by eating *organic* foods (which are grown without fungicides), limiting or rotating seafood intake, and using a safer material for dental fillings. Today, some dentists are refusing to use mercury filling materials and will even take your present fillings out. Unstable dental amalgams can release daily levels of mercury into the blood, which are then stored in the tissues. In Sweden and other countries, authorities have already banned mercury fillings.

Milk protein may bind some of the mercury in the stomach reducing its
absorption. Selenium and L-cysteine may help counteract and eliminate mercury.

Contact the Holistic Dental Association to find a referral for an experienced dentist who knows about mercury toxicity. The address for the HDA is P.O. Box 5007, Durango, CO 81301, and the Web address is www.holisticdental.org.
Amino acids are the building blocks of proteins, and proteins are the building blocks of muscle and other tissues. So, you need a daily supply of amino acids to supply your body with the materials it needs to repair your muscles, organs, and other tissues. Eight of these amino acids (which we discuss later in this chapter) are called the essential amino acids.

You break down protein-rich foods by chewing them well, and by releasing adequate hydrochloric acid in your stomach and enzymes like trypsin and chymotrypsin in your pancreas. Because protein-rich foods tend to be denser than other foods, these digestive functions must be supported and maintained to adequately utilize the amino acids, which can then be absorbed and used or stored in the liver to make proteins in the body.

Protein-rich foods tend to be denser than other foods, so your digestive system needs to be in good working order to make the best use of the amino acids the foods provide. After the proteins are broken down, your body either absorbs and uses the amino acids or stores them in
your liver where they help make proteins to maintain and repair your muscles and tissues.

Amino acids (which we frequently refer to as aminos), are utilized to make important substances like enzymes that support biochemical reactions, hormones that influence metabolism, hemoglobin that carries oxygen through the body, and antibodies that help your immune system fight infections.

Protein deficiency is a common problem in malnourished people throughout the world, but also in people who have limited diets or who have trouble absorbing nutrients from their food — and conditions that can lead to many types of medical problems. Too much protein can also be a concern for people with chronic degenerative diseases such as those in the following list.

- Arthritis
- Cancer
- Cardiovascular diseases
- Diabetes

Your nervous system depends on amino acids to operate. When you don’t get enough essential aminos to make neurotransmitters — the substances in your nervous system that enable signals to travel from nerve to nerve — your nervous system may not function properly. For instance, lack of the amino acid tryptophan can result in lowered levels of the important neurotransmitter serotonin. A reduced level of serotonin in the brain is linked to mood disorders like depression and insomnia — even food cravings.

Because of the fascinating biological and therapeutic effects of amino acids, scientists are increasingly interested in them. New research shows that single aminos or combinations of amino acids taken in
capsule or tablet form may help relieve the symptoms of and help heal certain conditions. (For example, phenylalanine may help ease chronic pain, and glutamine can help curb alcohol and sugar cravings.) This chapter gives you an exciting review of what you need to know about amino acids. These natural therapeutic substances are part of your daily diet, and separate, additional doses can have dramatic effects.

If you have a preexisting health condition, it’s wise to visit a qualified nutritionist experienced in the use of aminos before experimenting with supplemental aminos. In addition, take a product with a balance of several aminos. If you’re taking high amounts of individual aminos for therapeutic purposes, take them only for short periods of time, like a month.

After strenuous exercise, your need for protein and amino acids goes up. Protein drinks with amino acids are popular with athletes because they increase the levels of aminos in your blood and provide aminos that your body needs to build stronger muscles. Aminos in such drinks are generally free amino acids, meaning they aren’t chemically linked to other substances and can be absorbed more quickly by your body.

**Alanine: An Energy Source**

*Alanine* is an important part of human muscle and one of the few amino acids that transforms into glucose, an important sugar that your body uses as an energy source. Alanine is included in some energy and sports formulas, but is less popular as a single supplement.

**Key uses of alanine:**

- Helps produce lymphocytes, which are cells in your lymph fluid and bloodstream that are vital to your immune system.
- May help regulate blood sugar.
Helps reduce symptoms of prostate enlargement in men if used with glycine (another amino acid).

Helps your adrenal gland function. Beta-alanine (another form of the amino acid) is not part of proteins, but is a component of vitamin B-5, which is good for your adrenal glands.

Where you can find it: Found primarily in animal proteins, plus dairy, oats, wheat germ, and avocado.

How much to take: 250 to 500 mg one to two times daily.

Arginine: For Male Fertility

Nuts, particularly almonds and walnuts, have high levels of arginine, whose main function is to support male fertility. You may also benefit from arginine during times of stress or growth.

Arginine can contribute to herpes outbreaks if you’re susceptible. People with cold sores or genital herpes are known to become worse when they consume this amino acid.

If you have diabetes, have your doctor monitor your progress before trying arginine as a supplement, because it stimulates the pancreas to release insulin.

Key uses of arginine:

Tests on arginine, in doses of two grams per day, show that it improves male fertility and sperm function. Arginine can help stimulate the body’s production of nitric oxide, a powerful blood vessel dilator, which may also help with some kinds of impotence by increasing blood flow to the penis.

Arginine is essential for childhood growth, and you need more during times of stress or recovery from illness.

Arginine helps build hormones, particularly growth hormone,
which helps in the following processes:

- Muscle development
- Weight reduction
- Thymus gland and immune functions
- Wound healing

✓ This amino acid supports growth in kids and body building in teenagers.

✓ Eating foods rich in arginine, or taking arginine separately, is related to a reduced risk of coronary heart disease.

✓ Arginine may be beneficial if you are borderline diabetic or have non-insulin dependent diabetes.

Where you can find it: Nuts and fish are rich in arginine. Vegetable proteins like soy protein have some arginine, but not as much as nuts and fish.

Don’t take high amount of arginine for an extended period of time, and always take it under the supervision of your practitioner.

Aspartic Acid: For Mineral Absorption

Found in its highest quantities in the brain, aspartic acid increases neurologic activity. Doctors find it in higher amounts in people with epilepsy and in lower amounts in those suffering from depression. Aspartic acid is not as important as two other amino acids, tryptophan and taurine, for mood disorders, but often is added to complex formulas for these ailments and for immune system weakness.

Aspartic acid, which is available in all protein foods, forms aspartame
when it’s combined with phenylalanine (another amino acid). Aspartame is the commonly used artificial sweetener that can be a mild irritant to the nervous system.

Doctors don’t recommend aspartic acid supplements for regular use, especially for children, who generally have more sensitive nervous systems.

**Key uses of aspartic acid:**

- Clinicians include aspartic acid in some natural programs for depression and immune function.
- Aids in energy production from carbohydrates and in RNA and DNA formation.
- Aids in liver detoxification from drugs and chemicals.
- Increases resistance to fatigue.
- Aspartic acid is essential to the process of chelating, or holding, minerals to make them easier to assimilate, digest, and utilize, as in calcium, potassium, and magnesium aspartate.

**Where you can find it:** Protein foods, such as meat, fish, eggs, and soybean products.

**How much to take:** 200 to 500 mg two times daily.

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**Carnitine: Generating Energy**

Carnitine plays a role in metabolizing fat and producing energy. It is an extra amino acid not found in your body tissue, but you can manufacture it from lysine. Over the past few years, carnitine has received tremendous interest from both professional athletes and sports enthusiasts as an aid for increasing energy and performance. Studying carnitine is a very exciting area of clinical research right now — it may be helpful in treating chronic low-energy ailments like chronic fatigue.
syndrome, and also for weight loss.

Taking both vitamin C and lysine can enhance the production of carnitine in the body.

**Key uses of carnitine:**

- Carnitine is important to the heart and helps convert fats to energy within the mitochondria — your cells’ energy factories.

- Carnitine is involved in metabolizing and using fats and oils in the body, as well as transporting fatty acids into muscle cells. Fatty acids are an important energy source for your muscles, which is why some sports nutritionists recommend carnitine to improve workouts.

- Clinicians recommend carnitine for heart disease like congestive heart failure, high cholesterol, abnormal heart rhythms, chronic fatigue and poor endurance, and muscle weakness.

- The *Physicians Desk Reference*, published annually by Medical Economics Data, suggests further use of this amino acid for athletic performance, improved fat metabolism, and the treatment of cardiovascular problems caused by restricted blood flow, especially after a heart attack, to help the body repair the damaged heart muscle.

**Where you can find it:** Carnitine is found primarily in red meats, with some levels also present in fish, poultry, and milk. Very little carnitine occurs in plants, so it’s definitely an important supplement for vegetarians. The best vegetarian sources are nutritional yeast or soy tempeh.

**How much to take:** 500 to 1,000 mg twice daily, before breakfast and lunch.

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**Cysteine: A Protector and**
Detoxifier

Cysteine is an important sulfur-containing amino acid utilized in many metabolic (biochemical) pathways. Cysteine is a powerful antioxidant and detoxifier as a precursor (a substance that precedes another) for glutathione enzymes, which the body, and especially the liver, use for disabling destructive free radicals.

Key uses of cysteine:

- Practitioners recommend this amino acid for protection from chemical toxicity and to support the detoxification process in smokers and people exposed to chemicals or air pollution.
- Helps prevent cataracts and cancer and aids in anti-aging programs.
- Cysteine is important in your liver’s daily rebuilding process.
- Researchers and clinicians are studying N-acetylcysteine (NAC), a special form of cysteine, for its ability to deliver cysteine into the lungs, where it acts as a powerful antioxidant to help protect lungs from the free radicals that scientists say can lead to worsening symptoms of lung diseases like emphysema. NAC is an excellent expectorant that helps keep the lungs clear of mucus.
- Aspirin, acetaminophen (the active ingredient of Tylenol), and a host of other pain-relieving medications may irritate your liver. Ask your health practitioner about taking extra cysteine or NAC to help your liver protect itself from these potent chemicals.

Where you can find it: Cysteine is found in poultry, yogurt, oats, and wheat germ, and in sulfur-containing foods such as egg yolks, garlic, onions, and broccoli.

How much to take: The usual dose is 250 mg two or three times daily.
Glutamic Acid: Help for Alcohol and Sugar Cravings

*Glutamic acid* is abundant in both animal and vegetable proteins and is found in high concentrations in the human brain. If you read labels, don’t be confused by different words for this amino acid, sometimes called *glutamine* or *glutamate*, which are essentially similar forms with the same function.

**Key uses of glutamic acid:**

- Practitioners prescribe glutamine to help gastrointestinal healing.
- Glutamine also helps reduce cravings for sugar and alcohol, probably by providing energy for brain function.
- Practitioners prescribe this amino acid for neurological and mental disorders.

Avoid glutamic acid supplements if you are pregnant, and don’t take them without the advice of your health practitioner in any condition. Do not give glutamic acid supplements to infants or children.

MSG (monosodium glutamate) is derived from glutamic acid and serves as a flavor enhancer. It is hidden in many processed and restaurant foods under the label “natural flavor or natural coloring.” Some scientists say that MSG should be on the label, because it is a brain stimulant to which many people react. Children, especially, should not consume it regularly.

Sound the gong: chow mein lovers beware! Chinese chefs in particular commonly use a generous amount of MSG to enhance the flavor of their dishes.

**Where you can find it:** Occurs in both animal and vegetable
proteins.

How much to take: Dosage is 500 mg two or three times daily.

Glutathione: The Antioxidant Amino

*Glutathione* is not a protein-building amino acid, but a mixture of amino acid chains. Glutathione forms enzymes such as *glutathione peroxidase*, and is essential to life and present in all plant and animal cells. This amino acid is added to nutritional formulas that help clean certain chemical toxins (like those that result from smoking) from your system.

Key uses of glutathione:

- A potent antioxidant, it protects against damage from chemicals, free radicals (particularly peroxides), smoke, radiation, and other toxins.
- Glutathione is prescribed by practitioners for protection against cancer, cataracts, and skin problems.

Where you can find it: Occurs widely in both plant and animal cells in small amounts, and is also formed in your body.

How much to take: Take glutathione in amounts of 100 to 250 mg twice daily, or in the form of its building blocks methione or cysteine in 250 to 500 mg doses twice daily.

Glycine: For Detoxifying and Wound-Healing
Glycine occurs in protein foods and comes from choline in the liver and the amino acids threonine or serine. Glycine is an important component in detoxifying chemicals in your body and helps wounds heal. Its beneficial effects for schizophrenics have been studied for more than ten years.

**Key uses of glycine:**

- Physiologically, glycine has a calming effect on brain metabolism.
- Glycine helps your body synthesize hemoglobin, collagen, and glutathione.
- Glycine works in your body to detoxify toxic chemicals like toluene, which is released from the paint in your house.
- This amino acid is also an essential part of glutathione, a substance your liver uses to protect your body’s cells and tissues from free radical damage.
- You can use glycine for healing wounds, in manic states, and to support growth hormone release (taken in higher amounts).
- Dimethylglycine and trimethylglycine, other forms of glycine, are supplemented more in clinical practice to improve energy and strengthen your immune system and your ability to recover from and prevent infections.

**How much to take:** The dosage is 75 to 150 mg twice daily. (Glycine occurs so widely in all foods that it’s unlikely you need to take individual supplements, although you may find it in a supplement combining several amino acids.)

**Too little or too much:** Before taking glycine supplements, consult a qualified nutritionist. While glycine shows some beneficial effects in schizophrenia, too much can have toxic effects in the brain. Less than 3 grams a day seems to be safe.
Histidine: For Allergies

Histidine is a semi-essential amino acid that your body needs during periods of growth, stress, and recovery from illness and injury. Although health practitioners use histidine less frequently than other amino acids, your body uses it to make histamine, which reduces your sensitivity to allergens. (Your body, however, can’t make all the histamine you need.) This amino acid can also enhance the uptake of some minerals like zinc and inhibits the absorption of copper.

Key uses of histidine:

✔ Clinicians recommend this amino acid in the treatment of allergic disorders, high blood pressure, and anemia, because it helps in the formation of hemoglobin. Hemoglobin carries oxygen in the blood.

✔ You can take histidine following an injury, because it helps form and repair tissue formation and repair.

Where you can find it: Found in most protein foods, histidine is highest in pork, poultry, cheese, and wheat germ.

How much to take: The dosage is about 500 to 1,000 mg two or three times daily.

Too much or too little: Researchers have linked low histidine levels in the body to symptoms of fibromyalgia (painful or inflamed muscles).

Because taking too much histidine can cause a copper deficiency, you may need to supplement your diet with extra copper.

Isoleucine: For Building Muscle
**Isoleucine** is an essential amino acid, which means that you must get it from the foods you eat. It is in the class of branched-chain amino acids (BCAA) with leucine and valine, which support lean muscle-mass building and muscle repair. Isoleucine and the other BCAAs can help reduce the harmful effects of stress on your body.

Essential amino acids are those you need to obtain from your diet.

**Key uses of isoleucine:**

- This amino acid contributes to the biochemical process that gives you energy.
- Isoleucine is often used in amino acid mixes, such as the protein powders and capsules currently popular with weight lifters, athletes, and other people who like to stay active. Such formulas help build lean muscle mass and reduce fat.

**Where you can find it:** Isoleucine is present in nuts, seeds, cheese, fish, poultry, and wheat germ.

**How much to take:** A reasonable daily dose for isoleucine is about 3 to 6 grams per day, combined with leucine and valine. The suggested daily dose for them individually is 1 to 2 grams.

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**Leucine: Helps Wounds Heal**

Leucine is another branched-chain amino acid, along with isoleucine and valine. Leucine is essential for growth as a stimulator for protein synthesis in muscle. You often find it as part of an essential amino acid blend or a branched-chain muscle-building formula.

**Key uses of leucine:**

- Leucine is helpful in healing wounds and injuries.
It also helps balance your blood sugar because it produces energy.

Consider extra branched-chain aminos with leucine, isoleucine, and valine if you are prone to infections or can’t heal a chronic infection.

**Where you can find it:** Found in animal proteins and dairy products, leucine is also available in oats and wheat germ.

**How much to take:** A reasonable dose of all the branched-chain amino acids is 5 to 6 grams daily, taken along with other branched-chain aminos in a complete protein supplement product.

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**Lysine: For Cold Sores**

*Lysine* (a precursor for the substance carnitine) is best known for lessening and preventing *herpes simplex* virus infections. (It balances the tendency of another amino acid, arginine, to induce herpes attacks.) Lysine appears to work better at reducing the fever blisters, or cold sores, associated with *Herpes simplex* type I than it does on the blistering rash and genital sores of *Herpes simplex* type II.

**Key uses of lysine:**

- Lysine helps your body absorb calcium and promotes bone health — especially important for post-menopausal women. For the same reason, researchers found a positive effect for lysine to reduce dental cavities.

- This amino acid is important to collagen formation, thus adding to tissue strength.

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Collagen is an important component of the lower layers of the skin. Good collagen support can help your skin look young and reduce wrinkling.
Lysine can also enhance recovery from hard-to-heal wounds or injuries.

Along with garlic, vitamin C, and niacin, lysine can help in lowering your cholesterol levels if they are too high.

**Where you can find it:** Lysine occurs abundantly in fish and poultry, dairy, wheat germ, and other legumes, and in smaller amounts in grains and peanuts. You may need extra lysine if you eat a high-carbohydrate diet. Make sure that you’re getting enough lysine if you’re a vegetarian.

Grains, especially refined grains, are particularly poor in lysine. Adding beans to grain foods provides a more complete protein, containing all the essential amino acids.

**How much to take:** A reasonable dose of lysine is 1 to 3 grams daily with your morning and evening meals. As little as 500 to 1,000 mg twice daily is often helpful for preventing and easing cold sores and herpes lesions.

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**Methionine: Supporting Your Liver**

One of the essential sulfur-containing amino acids, methionine is important for many bodily functions, including immune cell production and proper nerve function. Methionine is a potent antioxidant and an important amino for your liver’s repair and rebuilding processes.

If you’re pregnant, remember that methionine, along with folic acid, plays a role in neural-tube (part of the fetus that forms during cell development and becomes the nervous system) defect in the fetus. Methionine is an essential amino acid important for the normal closure of the neural tube, and research shows that methionine deficiency is associated with a higher occurrence of neural-tube defects (nervous system problems such as spina bifida).
in newborns. Remember that vegetarians are much more likely to be deficient in methionine than meat-eaters. If you do take a nutritional formula with extra methionine, be sure to take extra vitamin B-12 and folic acid — an especially good idea during pregnancy.

**Key uses of methionine:**

- Methionine forms cysteine, which helps form glutathione enzymes that help detoxify chemicals and free radicals. However, health practitioners recommend cysteine more often than methionine as an antioxidant, because it has a wider range of protection, and people tolerate it better.
- By supplying sulfur, methionine helps prevent skin and nail problems.
- Prevents excess fat buildup.
- Helps relieve or prevent fatigue.
- Because it reduces histamine release, methionine may be useful in some allergy cases.
- Research shows that methionine supplementation may be helpful in treating Parkinson’s disease.

**Safety Tip:** Don’t take extra methionine if you have elevated cholesterol or heart disease, rheumatoid arthritis, or if you eat meat often. Methionine converts to homocysteine, a known risk factor for heart disease. (See the sidebar, “Homocysteine: Not too much, please,” in this chapter.) Like many nutrients, you must remember the bottom line: enough, but not too much.

**Where you can find it:** The least common of the amino acids, methionine occurs in most protein-based foods but only in small amounts in legumes, peanuts, soybeans, and vegetables in general. Methionine levels are five to ten times lower in vegetables than in animal foods. Adequate intake of methionine requires a mixture of vegetarian foods, such as grains and beans, to obtain a better balance of all the amino acids.
**How much to take:** A reasonable dose for treating medical conditions is generally 1 to 3 grams a day.

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**Homocysteine: Not too much, please**

*Homocysteine* is an amino acid by-product of methionine breakdown. (See the section “Methionine: Supporting Your Liver,” in this chapter.) Too much homocysteine in your blood is a newly identified risk factor for developing hardening of the arteries and having a heart attack or stroke. Elevated levels of homocysteine may also increase your risk of other degenerative processes in the eyes, nervous system, and kidneys. Testing your homocysteine levels along with traditional cholesterol tests can give your physician a clearer picture of your risk for having a heart attack or stroke.

Some people have a genetic predisposition for creating too much homocysteine and cannot properly convert this toxic byproduct back to methionine so that their bodies can use it. Even children can experience this problem, causing hardening of the arteries at a young age. Scientists now know that a deficiency of folic acid, vitamin B-6, and vitamin B-12 can all lead to the same condition. People who eat lots of red meat take in extra methionine and are more likely to be deficient in these vitamins, increasing their risk for heart disease. Many nutritionists today recommend taking extra vitamin B-12 (400 mcg per day) and folic acid (400 mcg per day), and some recommend adding vitamin B-6, which can reduce your homocysteine levels by about 20 percent — a significant amount. We recommend checking your nutritional supplement program to make sure you’re getting these important nutrients in adequate amounts. (You can also see Chapter 3 for more on these vitamins.)
Ornithine: Another Muscle-BUILDER

*Ornithine* is one of the amino acids that aids in the production of growth hormone. Your body manufactures ornithine from arginine. Bodybuilders commonly use ornithine and arginine together as a growth hormone stimulant.

**Key uses of ornithine:**

- With arginine, ornithine is useful in nitrogen (ammonia) metabolism.
- Ornithine is thought to help build the immune system, promote wound healing, and support liver regeneration.

Insomnia is a potential side effect of taking ornithine.

How much to take: The recommended dose is as high as 1 to 2 grams twice daily.

Phenylalanine: Helping Your Mood

Phenylalanine is readily available in most food sources. This amino acid is important in helping your brain make active nerve chemicals that can affect your mood (like epinephrine). Phenylalanine seems to increase endorphins in the brain to give you a more positive outlook.

Phenylalanine is used to form another amino acid, tyrosine, and because your body can’t reconver...
directly affect brain chemistry.

**Key uses of phenylalanine:**

✔ Phenylalanine is transformed into *norepinephrine* in the body through a variety of metabolic steps, as well as to other active chemicals, such as *epinephrine, dopamine,* and *tyramine.* Norepinephrine is an important neurotransmitter (it conveys information from nerve to nerve) and is apparently important for memory, alertness, and learning.

✔ Practitioners recommend phenylalanine for treatment of depression, bipolar disorder, hyperactivity, and Parkinson’s Disease.

✔ This amino acid may also function as a pain reliever for headaches (particularly migraines), and also for lower back and neck pain, arthritis, and menstrual cramps. Researchers don’t know yet how effective phenylalanine is for these conditions, but some clinical trials look promising.

Avoid using phenylalanine supplements, and reduce high-phenylalanine containing foods like meat and dairy products if you have lupus.

In order to make use of phenylalanine, your body requires vitamin B-3, vitamin B-6, vitamin C, copper, and iron. If you use phenylalanine, make sure to add these as well. (See Chapter 3 for more information on these vitamins.)

**Where you can find it:** Phenylalanine is particularly high in meats and milk products, with lower levels found in oats and wheat germ.

**How much to take:** The suggested dosage is 500 to 1,000 mg twice daily. Some studies indicate that phenylalanine is more effective when taken with 50 to 100 mg of vitamin B-6, twice daily.
Proline: For Healing Injuries

Proline is one of the main amino acids your body uses to build collagen, which makes up the tough, elastic fibers of scar tissue and is the main structural material of your body — bones, tendons, ligaments, and skin all contain collagen. This amino promotes healthy bones, skin, and cartilage. Amino acid mixtures and tissue-building formulas commonly contain this amino acid.

Key uses of proline:

✔ Proline is helpful in tissue repair following injury (especially burns) and after surgery.

✔ This amino acid aids in the formation of healthy joints, tendons, and ligaments.

Some medical researchers feel that lysine, proline, and vitamin C supplements are effective in reversing hardening of the arteries. Always take vitamin C with proline for healing injuries and strengthening tissues, because it is necessary for building collagen.

Where you can find it: Eggs and dairy products contain high amounts of proline, which also derives from glutamic acid or ornithine, amino acids discussed in their own sections earlier in this chapter.

How much to take: This amino acid is usually taken in conjunction with other amino acids, and an average dose is between 250 and 500 mg.

Serine: Building Healthy Cells

Serine, a component of brain proteins (including coverings of the nerves), is an amino acid that can be made in your tissues from glycine or threonine, so it is considered nonessential. (Nonessential means that
you don’t have to get it from your diet, remember?) Your body, however, needs adequate amounts of vitamin B-3, vitamin B-6, and folic acid to make serine from glycine. Serine isn’t often recommended, except in the special form, phospatidylserine.

**Key uses of serine:**

- Serine is important in the formation of cell membranes and in making creatine (part of your muscle tissue).
- Used as a natural moisturizer in skin creams.
- A special form of serine, phospatidylserine, can help treat mood and metabolic or sleep disorders.

**Where you can find it:** Meats and dairy products, wheat gluten, peanuts, and soy products all contain ample amounts of serine.

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**Taurine: For a Healthy Heart and Nerves**

One of the most important, useful, and safest amino acid supplements is taurine, best known for its beneficial effects on the heart and cardiovascular system. Your body can produce taurine from cysteine with the help of vitamin B-6.

**Key uses of taurine:**

- Most frequently found in the central nervous system, retina, skeletal muscle, and heart, taurine is potentially useful in treating seizure disorders, cardiovascular problems, and some eye problems.
- Taurine functions in electrically active tissues, such as the brain and heart, to help stabilize cell membranes.
- This amino also appears to have some antioxidant and
detoxifying activity.

✔ With the support of zinc, taurine aids the movement of certain minerals in and out of cells and thus helps generate nerve impulses.

✔ As an inhibitory neurotransmitter, taurine’s main use has been to help in the treatment of epilepsy and other excitable brain states, where it functions as a mild sedative. Doses for this effect are 500 to 1,000 mg three times daily.

✔ Often prescribed in Japan and other countries for heart ailments, taurine assists your body’s healing process after a heart attack. Heart rhythm problems and heart weakness associated with congestive heart failure often respond to high doses, from 2 to 6 grams, three times daily.

✔ People with high blood pressure and high cholesterol also benefit from taurine in some cases.

If you have heart disease, discuss the use of taurine with your doctor.

Taurine is beneficial for various cardiovascular problems, including heart attacks, arrhythmias, congestive heart failure, and coronary heart disease.

Where you can find it: Taurine is found naturally in fish and meat proteins. Vegetarians are more likely to get reduced levels of taurine in their diets.

Threonine: A Muscle Relaxant

Threonine is an important ingredient in many body proteins and is necessary for the formation of tooth enamel protein, elastin, and collagen. Doctors use threonine to help relax the muscles of patients with diseases that cause painful muscle contractions, like multiple sclerosis (MS).
Key uses of threonine:

톡톡 Threonine is an immune-enhancing nutrient (along with cysteine, lysine, alanine, and aspartic acid). It promotes growth and activity of the thymus gland, which strongly influences your body’s immune system.

 sık sık This amino also has a minor role as a *lipotropic* — a substance that controls fat buildup in the liver. (This role is increased if you are deficient in choline, another amino acid.)

Where you can find it: Most flesh foods, dairy foods, and eggs contain threonine. You can find moderate levels in wheat germ and many nuts, beans, and seeds, as well as some vegetables and grains.

How much to take: Three grams a day may function as a muscle relaxant for people with multiple sclerosis or muscles chronically in spasm due to trauma and spinal injury.

Tryptophan: Treating Depression and Insomnia

Tryptophan is an essential amino acid well known for its ability to dramatically affect the levels of the neurotransmitter, or brain chemical, serotonin. Tryptophan is important in helping your body create vitamin B-3 and the hormone melatonin. This amino acid and its byproducts play an important role in regulating mood, sleep cycles, and the perception of pain.

Tryptophan is the direct precursor, or starting material, of serotonin. Your tryptophan intake affects the amount of active serotonin your brain makes. Serotonin levels affect your mood, your ability to sleep well, and your food cravings.

Tryptophan is currently available only by prescription. In the past,
companies sold tryptophan products contaminated with a toxic compound that caused severe illness in some people. Today, tryptophan is checked more closely, and supplements are safe.

**Key uses of tryptophan:**

- Many people use tryptophan effectively to treat insomnia. Tryptophan also increases melatonin levels in your blood by up to four times the normal amount, and melatonin supplements are also popular sleep aids.

- Tryptophan is prescribed as an antidepressant, and is particularly effective in relieving manic depression and depression associated with menopause.

- Tryptophan appears to increase pain thresholds.

- This amino may help treat anorexia by enhancing appetite.

**Where you can find it:** Good sources of tryptophan are turkey and milk. It is readily available in flesh foods, eggs, dairy products, and some nuts and seeds, while relatively low in corn and other cereal grains. Vegetarian sources include nutritional yeast, soy products, almonds, and spirulina, an algae high in protein.

**How much to take:** Most people need 500 to 1,500 mg of L-tryptophan (the desired form) to induce sleep. However, begin by taking the lowest dose that works, about 500 mg, and try to continue using this low dose. Take another 500 mg if you wake in the middle of the night. As an initial treatment, we suggest taking 500 to 1,000 mg of L-tryptophan 30 to 45 minutes before you go to bed — taking the dose in advance reduces the time it takes to fall asleep.

If 500 mg is insufficient, increase the dose 500 mg each night, up to a total of 2,000 mg. You should also add 300 to 600 mg of calcium and 200 to 400 mg magnesium to your good night supplements if you’re taking an increased amount of tryptophan to help you sleep.
Proper tryptophan metabolism requires vitamin B-6, vitamin C, folic acid, and magnesium. If you are taking tryptophan, remember to add these nutrients to your program. Researchers say it is especially important to take B-6 with tryptophan to reduce the possibility of the buildup of toxic by-products in your system. (See Chapters 3 and 4 for more on these vitamins and minerals.)

For tryptophan to be effective, it must cross into your brain. Tryptophan must also compete with many other amino acids to be absorbed. To enhance blood levels of tryptophan, and increase the conversion rate to serotonin, take your tryptophan with a carbohydrate meal.

**Tyrosine: The Antidepressant Amino**

Thought to be useful in the treatment of depression and anxiety, tyrosine is important to metabolism. Your body manufactures it from another amino acid, phenylalanine. Tyrosine also aids in the reduction of body fat.

If you have lupus, see your doctor and your nutritionist before taking tyrosine.

**Key uses of tyrosine:**

▶ Tyrosine is known as the antidepressant amino acid, and it may also be useful for reducing anxiety and improving energy.

▶ This amino has a mild antioxidant effect, binding up free radicals (unstable molecules) that can cause damage to the cells and tissues, and is useful in preventing cell damage if you smoke, have a stressful life, or are exposed to chemicals and radiation.

▶ Other uses for tyrosine include treatment of low sex drive and Parkinson’s disease.
Tyrosine is also used in programs for people with drug or weight loss problems (it is a mild appetite suppressant).

Your body needs folic acid, niacin, vitamin C, and copper to help convert tyrosine into many important substances, including melanin, a skin pigment; estrogen; and enkephalins (natural pain relievers). Tyrosine may stimulate growth hormone and can act as a mild appetite suppressant.

**How much to take:** The usual dosage for tyrosine is about 1 to 2 grams a day. As an antidepressant, take 500 to 1,000 mg two or three times during the day.

Because tyrosine has a stimulating, antidepressant effect, taking it in the morning and before lunch combined with 1,000 to 1,500 mg of tryptophan (which is more tranquilizing) at night may be a good therapeutic combination to help relieve mild to moderate depression. Researchers found that, for some people, tryptophan combined with tyrosine had better depression-relieving effects than tyrosine or tryptophan alone.

**Valine: For Muscle Power**

Valine produces energy, which spares energy stored in your blood glucose. Valine occurs in substantial quantities in most foods and is an essential part of many proteins. You can combine this amino acid with leucine and isoleucine for muscle energy and building.

**Key uses of valine:**

- Used in muscle building programs, and in general formulas to assist in protein metabolism.
- Taking valine supplements (along with isoleucine and leucine) may be helpful in building muscle and in repairing tissue damage from liver and gallbladder disease.
Where you can find it: Grains, dairy products, meat, mushrooms, soy products, and peanuts.
Fats and Oils: The Good, the Bad, and the Oily

In This Chapter
- Oils: They’re not just in salad dressings
- Cooking healthfully with oils
- Finding the healthiest and tastiest oils
- Losing those artery-clogging fats
- Greasing the mental gears — fatty acids for mood enhancement

Fats have gotten what may be a much-deserved bad rap over the past decade, but some good fats, called the essential fatty acids, are essential for life and optimum health maintenance. Consider fats as concentrated energy sources that also function like vitamins that your body needs. Every cell of your body needs certain fats to reproduce and function normally. The fat dripping off that barbecued beef patty or in the deep fryer that your French fries come out of is totally different from the high-quality fatty acids found in nuts, seeds, and their oils. If they are organic and freshly produced, so much the better. The bad (saturated and hydrogenated) fats in the first group can contribute to cardiovascular disease, arthritis, and cancer, while the good fats in the second group help your body build healthier cells and live a longer, healthier life.

Oils and fats are one of the most controversial components of the modern diet. If you really care about your health, you want to know not only which oils are okay, but also which oils are the healthiest, taste
best, and offer exceptional health benefits. Oils are not the best way to get your supply of essential fatty acids — they all contain at least 120 calories per tablespoon, and we recommend your using as little as possible. For the times when you do use oils though, this chapter gives some helpful guidelines.

Whereas vitamins, minerals, fiber, herbs, and even amino acids can be taken without adding significant calories, this is tough for essential fats from oils, so you should get your essential fats mostly from whole foods. Two bonuses of this approach are that food sources are much more stable than the isolated oils, and you can be sure they have not been hydrogenated.

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**Saturated, monounsaturated, and polyunsaturated — that’s a mouthful!**

You’ve probably heard of saturated, unsaturated, and monounsaturated fats; but what do all these terms mean? These words describe how many hydrogen atoms occur in a molecule, or fundamental unit, of fats and oils, compared with carbon atoms. A fatty acid molecule is one of the building blocks of fat, and the more hydrogen than carbon that it has, the more saturated it is. Saturated fats are usually solid at room temperature. (Think of bacon grease or a block of cheese.) The less hydrogen than carbon, the more liquid it is. (Think of canola or sunflower seed oil.)

Saturated fats are not healthy to use regularly because they contribute to heart disease. Unsaturated fats are healthier for your heart. Monounsaturated fatty acids like olive and canola oils are the healthiest for daily use. One drawback of polyunsaturated fats, however, is that they spoil more quickly than saturated fats, even when you store them in the refrigerator. Oils high in unsaturated fatty acids (like safflower oil) will go rancid faster when they’re cooked, but can also spoil
within several weeks even at room temperature.

We don’t recommend keeping cooked leftovers for more than a few days (with or without oils), although the food spoils before the oils do.

Another sneaky process you must watch out for: Manufacturers can heat up unsaturated oils like sunflower seed oil, force hydrogen into it under pressure, and make it more saturated. (You can probably guess that such oils are called hydrogenated or partially hydrogenated.) Margarine is made in this manner in order to produce a solid that you can spread. These products are not healthy for your heart, and they may increase your risk of developing certain kinds of cancer — not a bargain at any price. The following list shows you which oils are the best (and worst) for you.

**Saturated (worst!):** Margarine, butter, and coconut oil

**Unsaturated (better):** Sunflower seed oil, safflower oil, and corn oil

**Monounsaturated (best):** Olive oil, canola oil, sesame oil

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### The Basic Fats of Life

We’ve sifted through hundreds of technical studies on the benefits and drawbacks of fats and oils in our diets. We’ve also spent over thirty years observing how our families (ourselves included) and patients have either benefited or experienced various health problems from diets that include particular fats and oils over thirty years. The following list outlines a few simple conclusions about fats and oils that we have come to:

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✔️ For optimum health, and to avoid disease, you want to keep
fats and oils in your diet to a minimum. You do, however, need some high-quality fats and oils, called essential fatty acids, for the health of all the cells of your body, your organs, and your brain. (We explain more about essential fatty acids in the section “The Essentials of Essential Fatty Acids” later in this chapter.) So don’t avoid fats and oils like the plague — just familiarize yourself with the ones that are good for you and avoid the unhealthy ones like the common cold.

Eat as little saturated fat as possible. Saturated fats are abundant in farm-raised meats (except fish), or any products that contain meat, eggs, or dairy products, such as cheese and milk (unless they are fat-free).

The very best oil to cook with is extra virgin or virgin olive oil. It doesn’t break down as easily as other oils, creating toxic ingredients that are hard for your body to digest. It’s also one of the heart-friendly oils high in monounsaturated fatty acids. It is the only oil you should cook with, except for an occasional meal with cold-pressed and organic corn, soy, or sesame seed oil for variety.

Olive oil is great for salad dressings, for which the oil is not heated. Other oils that are healthier when not heated include sesame seed, almond, flaxseed, soy, corn, or high-quality sunflower oil — actually any oil is better uncooked or extracted without using heat or chemicals. Use them from time to time for variety.

Keep all oils sealed from air and in the refrigerator — as long as a month or two is safe. Keeping your oils in the refrigerator prevents them from being degraded by light. For convenience, keep a small bottle of olive oil on the counter for cooking and sprinkling on your food. (Olive oil tends to harden in the refrigerator, but this doesn’t cause any damage to the oil.)

The Essentials of Essential Fatty Acids
Essential fatty acids, called EFAs as a shortened form, are fats that your body doesn’t manufacture, so you have to get them from the foods you eat. Essential fatty acids are aptly named because they are essential to your health. The following list shows you some of the many ways your body uses these fatty acids.

✔ Your body uses essential fatty acids to lubricate skin and tissues and allow cell membranes to function normally. Because your body’s cells depend on EFAs to function normally, a deficiency can lead to hair loss, dry skin and skin rashes, heart disease, constantly feeling cold, easy bruising, joint inflammation, and repeated infections due to weakened cell membranes that are more susceptible to virus penetration. Because EFAs are essential for the health of your skin, you can use essential fatty acids to improve some skin conditions, such as dryness, dandruff, and hair loss. Fats and cholesterol also help keep skin from drying out due to loss of moisture — they’re a moisture barrier in your skin.

✔ Modern research shows that your brain and nervous system need essential fatty acids in order to function properly. Some EFAs can even affect your mood, and a shortage may increase your risk of developing a mood disorder, such as depression or anxiety.

Nuts, seeds, and vegetable oils all contain various amounts of essential fatty acids. The highest sources are flax, hemp, pumpkin, soybean, and walnut oils.

You need approximately two teaspoons daily (from a variety of sources) of these essential fatty acids, which are sometimes also called “good fats” or “good oils.”

Besides olive oil, the best way to get the essential fatty acids your body needs is from whole nuts, seeds, grains, and legumes. You can’t beat nature’s complete and unprocessed package.

Cross-dressing fats — Trans-fatty
acids

Some unsaturated fatty acids found in nuts, seeds, grains, and legumes are essential for your health and are less likely to clog your arteries, which places stress on your cardiovascular system. But when fats, like sunflower seed or safflower seed oils, which are high in unsaturated fatty acids, are partly hydrogenated (heated and pressurized), the individual hydrocarbon chains undergo a striking transformation. Their shape changes, and your body’s normal metabolism can’t properly deal with these new trans-fatty acids. (With their new shape, such oils are called partially hydrogenated oils.)

Recent research is clear on the results of consuming too many foods that are high in cooked oils — your risk of developing cancer is increased, and the health benefits you receive from fatty acids are decreased. The bottom line is this: Avoid foods that contain hydrogenated or partially hydrogenated oils and consume some foods that contain the healthy essential fatty acids (EFAs).

Benefiting from Fat and Oil Supplements

You probably think about it before eating that dish of ice cream or drinking a big glass of milk. Low fat and no fat dairy products are next to whole milk products on the store shelves. Now that you’ve got some of the oil out of your diet, why are we recommending that you add more back in? As the title of this chapter suggests, some oils are good, some are bad, and they are all oily. It isn’t all that simple, of course. All fats in foods have their place in our diet, and when we eat them in their whole natural state in flax seeds, fresh fish, and whole corn, they supply what our body needs. The problem is our modern diet, in which all
kinds of kinky oils are hidden, ready to ambush our heart and other organs. Plus, fats and oils are very competitive, and when unhealthy fats and oils are in your small intestine, the healthy ones are less likely to be absorbed and become available to your body’s tissues. Here lies the main benefit of fat and oil supplements. If you have a perfect diet with little or no adulterated or cooked foods with fats, you may not need supplements. If you do eat some manufactured foods with cooked or adulterated oils and fats, and especially when you have symptoms that may relate to a fat and oil imbalance in your body, particularly related to chronic inflammation, you may well benefit from a supplement. Following I list three of the best.

**Evening primrose oil**

One of the most popular supplements these days is evening primrose oil (EPO). The oil is extracted from the tiny seeds of the evening primrose plant, a plant with large yellow flowers. EPO contains important oily substances like *gammalinoleic acid* (GLA), an *omega-6 fatty acid* that your body uses to produce important hormone-like regulators in your body called prostaglandins. Prostaglandins come in various types, each of which your body uses in different ways. One of the most important uses is to regulate inflammation — a natural protective process of your body that can sometimes go awry and contribute to heart disease, arthritis, and other changes and diseases of aging. (See the sidebar “Prostaglandins and fat: Partners in crime” earlier in the chapter for more on prostaglandins.)

GLA is also found in high concentrations in two other popular supplements: borage seed oil and black currant seed oil.

Practitioners may recommend GLA to treat some of the following symptoms and diseases:

- A weakened immune system
- Allergies
- Arthritis
- Atherosclerosis
- Fibrocystic breast disease
- Multiple sclerosis
- Skin conditions such as eczema and psoriasis
- Sore breasts or other symptoms of premenstrual syndrome (PMS)

Take 250 to 400 mg of GLA or 2,000 to 3,000 mg of evening primrose oil daily. Take two or three capsules of borage or black currant seed oil, twice daily.

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### Prostaglandins and fat: Partners in crime

Prostaglandins are hormone-like substances that your body creates from certain essential fatty acids (EFAs) to help regulate your immune response, your muscle tone, your blood vessel contractions and size, and your blood flow. Three prostaglandins that are of special importance to you are called PGE1, PGE2, and PGE3.

Think of PGE1 and PGE3 as “good” prostaglandins that can reduce excessive or chronic inflammation in your body’s tissues and organs. PGE2 is a “bad” prostaglandin that increases this inflammation, contributing eventually to a number of chronic and all-too-well-known diseases, such as arthritis, fibromyalgia, and irritable bowel syndrome.

Practically any processed foods or foods that contain cooked oils (such as chips, baked goods, hamburgers, and junk food) contain the direct building blocks of PGE2, linoleic acid, so chalk up another reason to cut down on those foods.

But there’s good news, too. Your body creates the “good”
prostaglandins, or PGE1 and PGE3, from one of the essential fatty acids. To gain the necessary fatty acid, you can take 200 to 500 mg capsules daily of one of the following supplements.

- Evening primrose oil
- Borage seed oil
- Black currant seed oil

**Everything’s fishy about EPA and DHA**

Because humans lived near the ocean in prehistoric times and much of their food came from the ocean, they were fortunate that fish and sea vegetables are among the healthiest foods you can eat. Even today, people of many cultures thrive on foods from the ocean, like sushi and sashimi, or more commonly cooked fish.

Extensive scientific research on fatty acids found in fish and sea vegetables (the omega-3 fatty acids, also called n-3 fatty acids, which include EPA and DHA) shows that these good fats help produce substances called prostaglandins that regulate inflammation in your body. Omega-3 fatty acids also reduce blood thickness and stickiness, to help keep it moving, and lower blood cholesterol and triglyceride levels, which lessens the risk and incidence of heart disease. In 1990, Health and Welfare Canada set recommended intakes for dietary omega-3 fatty acids, but most Americans don’t meet this recommended intake.

Research shows that adequate DHA from fish, chicken, or supplements can help reduce the effects of stress on the cardiovascular system and help protect you from heart disease in many ways, not all of which are
EPA and DHA are used to help prevent and, as part of a total program, to treat some of the following diseases and symptoms:

- Bronchial asthma
- Cardiac arrhythmia
- Diabetes
- Gastric ulcers
- High blood pressure
- High cholesterol and triglyceride levels
- Inflammatory bowel diseases (colitis and Crohn’s disease)
- Migraine headaches
- Rheumatoid arthritis or osteoarthritis
- Skin conditions such as eczema and psoriasis

Infants need omega fatty acids (especially including DHA) to ensure that their nervous systems, immune systems, and vision develop properly. Breast milk does contain DHA, whereas infant formulas typically do not.

Don’t take cod liver oil or fish liver oil during pregnancy, because the high vitamin A content may not be healthy for a developing fetus. Eat fish like salmon, tuna, or sardines two or three times a week instead.

DHA and EPA come in capsule form, in a fish oil product in capsules, or in a liquid form, which you can sprinkle on food or in beverages.

Some egg producers give DHA-rich feed to chickens to increase the content of this health-promoting fatty acid in egg yolks. Egg sales have declined in recent years because of their high cholesterol content, and producers are trying to increase consumer appeal with a “healthier”
Omega-3 fatty acids typically occur in oily, cold-water fish, such as salmon, tuna, eel, mackerel, sardines, herring, and trout.

Take 1,000 to 2,000 mg, twice daily, of EPA and DHA for therapeutic use for allergies, asthma, and arthritis. For normal maintenance, the suggested dose is 300 to 500 mg, and much of this can come from eating oily fish. Some researchers recommend taking a balance of DHA and EPA, along with vitamin E. (You can take 1,000 to 2,500 mg daily of Salmon Oil or Max EPA to maintain a balance between the two.)

**Flaxseed oil**

Organic, cold pressed flaxseed oil is grown and produced in Canada and is probably the most balanced and nutritious oil, because it contains both omega-3 and omega-6 fatty acids. (Hempseed oil is very similar.) Flaxseed oil is an excellent source of essential fatty acids, but it should not be used in cooking, because it is highly perishable. Because DHA is found mainly in meat, especially fish, vegetarians get little or no DHA in their diets. Fortunately, adults (but not infants) can convert the essential fatty acid from flax seeds and flaxseed oil to DHA, but keep in mind that your body can only convert a small percentage of flax oil to DHA.

Flaxseed oil can be used to help treat some of the same diseases and symptoms as DHA and EPA, especially skin diseases like eczema and psoriasis, and chronic inflammatory conditions like arthritis.

Some practitioners recommend flaxseed meal or high-lignin flaxseed oil as a useful adjunct to hormone replacement therapy because EFAs seem to control some of the adverse symptoms of menopause. They’re cancer-protective because they help stabilize cell membranes and structures, and also offer cardio-protective benefits. Plus high-lignin flaxseed oil or flaxseed meal contains
lignans, which act as estrogen-regulators. Suggested amounts are two to four teaspoons, up to two tablespoons per day, or five to six capsules of flaxseed oil.

Two Fun and Healthy Ways to Get Your Fats

Because you do need some healthy fatty acids in your diet, you may as well enjoy eating foods that contain them. We like almond milk for our cereal, for power shakes, or for any time we may normally drink cow’s milk, and flaxseed sprinkle to add to cereals, soups, on toast, or even on healthy desserts. Freshly chopped walnuts are delicious and good for you.

✔️ Almond milk: Soak 1/2 cup of almonds in a pint of water overnight. Blend the mixture in a blender with 1/2 teaspoon vanilla (on high speed) for two minutes. Store the resulting almond milk in the refrigerator. It’s only good for two or three days, so make a small amount.

✔️ Flaxseed sprinkle: Grind up the flaxseed when you’re ready to use it. Add a pinch or two of cinnamon powder, curry powder, or chili powder (depending on your seasoning preferences) to create a nutty-tasting sprinkle. You can buy it at natural food stores and grind it with a coffee grinder or blender.

Flaxseed oil is a popular supplement from which you can get your essential fatty acids. On the other hand, whole flax meal or the flaxseed sprinkle we show you how to make have more to offer your body in the way of cancer-fighters and bowel toners to keep your system, er, moving smoothly. Flax meal and flaxseed sprinkle cost less than flaxseed oil and taste great, so how can you lose?
Chapter 7
Hormones — Not Just a Teenage Craze

In This Chapter
► Finding out about the power of your hormones
► Understanding how to use popular hormone supplements
► Using hormone supplements safely
► Discovering the dietary estrogens and how they protect you

Your hormones affect every part of your life. Hormones are chemical messengers that regulate many functions in your body, including sexuality, reproduction, appetite, and emotions and mood. Many modern stresses can affect your hormone levels, including environmental factors like exposure to pesticides, herbicides, and plastics. Additionally, your diet and health habits strongly change the way your hormones work. These changes in hormone levels, and how the hormones work in your body, can have a huge impact on your mood and behavior. So it’s no wonder that the use of modern manufactured hormone supplements like DHEA, melatonin, and pregnenolone, are controversial. Some people say that these supplements have changed their lives for the better. They claim to have more energy, an increased interest in sex, and better sleep. But before you jump on the bandwagon and start popping DHEA, pumping iron, or booking that romantic weekend, read on so you can make an informed choice about hormone supplements and whether they can help you.
DHEA

One of the most talked-about new dietary supplements is DHEA (dehydroepiandrosterone). DHEA follows the criteria for the most popular of products: It can make people skinny and rich. If you’re low in DHEA, supplementation may help you lose weight, and the manufacturers of DHEA are definitely getting rich.

DHEA was the fastest-selling product in health food stores in 1997. It is the most abundant steroid hormone in your body and is secreted by the adrenal glands and brain cells. It is a building block of estrogens, testosterone, and other steroid hormones. Known as the anti-aging hormone, your level of DHEA declines as you age, and its uses primarily involve protecting you against the unpleasant symptoms that can happen as you get older.

**Key functions of DHEA:**

- Used by seniors to heighten their sense of well-being, increase libido, and enhance immune function.

**How much to take:** Generally, start low by taking 10 to 20 mg in the morning and work up to 50 mg daily. If you don’t feel right (irritability, poor sleep, headaches), reduce your dosage.

**Too little or too much:** A low DHEA level is a potential predictor of disease; DHEA levels have been found to be low in patients with various diseases, including coronary artery disease, hypertension, obesity, and most cancers. DHEA can also cause some of the same side effects as pregnenolone, so see the section on pregnenolone later in this chapter.
The long-term effects of taking DHEA are unknown. It works differently in males and females and has been shown to double serum levels of testosterone in males at doses between 25 and 50 mg per day. High or prolonged doses of DHEA may increase your risk of certain cancers. Note: Don’t take this supplement if you’re a teenager. (Your testosterone levels are high enough!) Unless you’ve been measured with low DHEA, this supplement is for people 40 and older.

**Estrogen**

You may think of estrogen as the “women’s hormone.” If so, you may be surprised to know that men produce it, too, mainly in the adrenal glands and liver, and store some in their fat tissues. (Men are not, however, commonly treated with any sort of estrogen therapy.) Estrogen affects your mood and emotions, whether you are a man or a woman. Recent studies show that testosterone may not be the only ambition or aggression hormone that starts wars. Estrogen can also make some people more aggressive and assertive.

In women, estrogen is secreted primarily by the ovaries, as well as by the adrenal glands, liver, and fat cells in the body. Estrogen output, in the form of estradiol, the most potent estrogen, decreases dramatically after menopause, leading to loss of reproductive capacity and contributing to an increase in aging-related disorders such as osteoporosis, incontinence, vaginal dryness, and possibly heart disease.

**Key functions of estrogen:**

* Helps direct development, growth, and maintenance of female reproductive structures and secondary sex characteristics such as hair distribution and breast development.

* Stimulates the oil glands in the skin and scalp, making the skin and hair softer.
Promotes bone development and maintenance and is an important factor in maintaining strong bones before menopause.

Helps balance blood lipids and protect blood vessels from the destructive hardening of the arteries (known as *atherosclerosis*).

Stimulates cell growth and regeneration of the genitourinary tract.

Prescribed by physicians as estrogen hormone replacement therapy to prevent heart disease, osteoporosis, vaginal atrophy, memory loss, Parkinson’s disease, urinary incontinence, and other symptoms in women during and after menopause, when a woman’s body stops producing the most potent forms of estrogen.

**Where you can find it:** If you experience the symptoms that can occur during menopause, or need to increase your estrogen levels because you’ve had a hysterectomy or have been diagnosed with naturally low levels of estrogen, try this recommendation. Start with a total hormone health program with *phytoestrogens* (plant-based estrogens), like soy products or red clover extract (discussed in more detail later in this chapter), and hormone-regulating herbs, like vitex or black cohosh (see Chapter 10 for more on these and other herbs). If this treatment is not enough, see a physician who is open to natural medicine for a naturally balanced estrogen and progesterone supplement that contains all three human estrogens: estradiol, estriol, and estrone.

Follow your doctor’s advice about how much of the balanced estrogen to take daily.

**How much to take:** 50 to 80 mg of phytoestrogens a day is a safe and effective dose. Phytoestrogen products usually contain the main phytoestrogen called genistein, but may contain others.

**Too little or too much:** Estrogen replacement therapy increases a woman’s risk of breast cancer (by about 10 percent per year) and uterine cancer. This risk increases the longer you use it. Excess amounts of estrogen are also associated with conditions such as PMS, gallbladder disease, endometriosis, uterine fibroids, and breast cysts.
When your estrogen levels drop to post-menopausal levels, you may experience hot flashes and diminished vaginal lubrication, and over 2 to 10 years or so, a reduction in the tone of bladder tissue and a loss of bone tissue. Our recommendation, though, is to take estrogen only if a natural program with phytoestrogens doesn’t work to reduce symptoms, and if you find you aren’t able to follow a bone-strengthening diet (detailed in Chapter 2) with exercise, good diet, and a complete supplement program.

If you do decide to take estrogen, you may want to know that Premarin is the most widely prescribed estrogen. Premarin is manufactured from the urine of pregnant mares who are factory farmed. The mares are kept pregnant in tiny stalls, catheterized, and allowed less water than they want, and their foals are sold to the meat market. In our experience, synthetic estrogens — those not natural to the human body — have more side effects than balanced human estrogen supplements. If you experience any side effects, ask your doctor for a natural product that contains all three human estrogens, which I describe earlier in this section.

Hydrocortisone

Imagine this scenario: You’re late for work, and you take your coffee and cinnamon roll to go. Jumping into your car, you head for the freeway, only to discover that traffic is even worse than usual. Balancing the coffee between your legs, you dial the office from your cell phone. Suddenly, the car in front of you slams on the brakes; you do likewise, and coffee spills all over your new suit. Your day is off to a great start!

If you’ve ever had an experience like this, you know what stress is all about. And you probably know that stress cranks up your adrenal glands to produce adrenaline and other stress hormones, and that if the stress becomes chronic, your adrenals are toast.
Your adrenal cortex secretes the steroid hormone cortisol, which helps control and maintain normal metabolism and provides resistance to stress. Cortisol is one stress hormone that helps you deal with stress, but unpleasant symptoms result when the adrenal glands become weakened with aging and years of stress, and cortisol levels drop. Reduced cortisol and adrenaline levels from weakened adrenal glands may contribute to the development of diseases like arthritis, asthma, hypoglycemia (low blood sugar), and chronic fatigue syndrome. Many synthetic and natural chemical variations of your adrenal hormones with a wide variety of activities, such as hydrocortisone, are prescribed for the treatment of various medical conditions related to chronically stressed and weakened adrenals. The stronger, synthetic versions, like prednisone, are prescribed by doctors for the treatment of many allergic, inflammatory, and immune disorders, and this medicine has many side effects. Hydrocortisone is milder and more similar to the cortisol our bodies produce, and thus helps the adrenal glands.

**Key function of hydrocortisone:**

- Has anti-inflammatory and antiallergenic properties.
- Prescribed for arthritis, rheumatoid arthritis, asthma, skin rashes, and adrenal weakness.

**Too little or too much:** Excessive or unnecessary use of hydrocortisone can lead to potentially serious side effects, including osteoporosis, immune suppression, water retention, muscle wasting, psychiatric disturbances, and adrenocortical atrophy (a severe weakening of your adrenal glands’ ability to produce cortisol).

See your doctor before taking hydrocortisone, because as we mention earlier, there are big differences between natural, low-dose hydrocortisone and stronger, synthetic cortisones.
Melatonin

If your schedule is constantly changing and you’re on the go so much that you don’t know what city you’re waking up in, or if sleep is just a five-letter word to you, then you probably have been tempted to try a melatonin supplement.

Melatonin is a natural hormone widely marketed as a remedy for insomnia and jetlag. Swing-shift workers favor this supplement because it can accelerate readjustment to varying schedules. This sleep/wake cycle hormone is secreted by the pineal gland in response to dark and light cycles. Melatonin levels increase in the dark and induce sleep, but overall levels can decrease with age.

Melatonin is touted as a miracle drug for life extension and maintaining well-being, youthful vitality, and sexual vigor. Optimistic, exaggerated, and even outrageous assertions notwithstanding, more research is needed to determine the validity of these health claims as well as the overall safety of melatonin.

Children and young adults generally do not benefit from taking melatonin, because they have naturally higher levels of it than older adults do.

**Key functions of melatonin:**

- Contains potent antioxidant properties and has been shown to be twice as effective as vitamin E in protecting against free radicals, which cause extensive cellular damage.
- May be useful for treating heart disease, stress-induced immune suppression, Alzheimer’s disease, Parkinson’s disease, stomach ulcers, colitis (colon inflammation), and some cancers.
- May help improve brain function and prevent neurological damage in Parkinson’s and Alzheimer’s patients.
May be a safe, effective, short-term treatment for insomnia.

**How much to take:** Take melatonin on an empty stomach or with a small meal. The average daily suggested dosage is 3 mg. The most easily absorbed form is sublingual lozenges, which should be taken 15 minutes to 1 hour before bedtime.

Sleeping difficulties come from a variety of conditions, not simply from low melatonin levels. If you have normal or high levels of melatonin and start taking a melatonin supplement, your symptoms could worsen. In addition, you could experience heightened nervousness and unrest. If you’re experiencing sleeping difficulties, consult a natural health care practitioner or your doctor for a saliva melatonin-level test before you begin taking melatonin.

**Too little or too much:** Taking melatonin when your natural melatonin levels are already normal or high can cause tiredness, headaches, nightmares, and depression. Long-term use may result in a lowered sex drive. Other side effects reported infrequently include mild stomach upset, nausea, constipation, and itchiness.

**Phytoestrogens**

Phytoestrogens are also called *dietary estrogens* because these natural estrogen-like chemicals are found in beans, nuts, seeds, whole grains, and oils. Phytoestrogens are not true human steroid-like estrogens, but they certainly *act* like estrogens in the body. In fact, these fascinating molecules can stimulate estrogen-sensitive tissues in your body — for instance, in your uterus and breasts — but they can also block estrogen binding to these tissues by taking up the spots on cell membranes that estrogen uses. This process may sound complicated, but the bottom line is that phytoestrogens can regulate and moderate how estrogen acts in your body.
When the estrogen levels in your body are high, you have an increased risk of developing breast cancer and benign breast cysts, abnormalities in your uterine lining, and uterine cancer. Some other cancers, such as liver cancer, can also be stimulated by too much estrogen activity in your body. Phytoestrogens protect you by slowing estrogen overstimulation.

**Key functions of phytoestrogens:**

- Regulate and moderate how estrogen acts in your body, possibly providing some benefits of estrogen supplements, without the risks.
- May help you maintain strong bones.
- May reduce hot flashes during menopause.
- Can help lower your risk of breast, prostate, and uterine cancer.

**Where you can find it:** You get two main kinds of phytoestrogens in your diet:

- **Isoflavones:** Mainly found in all beans, including soy products, and in some herbs, like red clover and alfalfa.
- **Lignans:** Found in flaxseed, whole grains, and other seeds like sunflower seeds.

Soy products like soy milk, soy protein powders, the textured vegetable protein found in vegetarian hot dogs and mock turkey, tofu, and the traditional fermented soy product tempeh, are the most talked-about sources of phytoestrogens. They are also abundant in all beans, including black beans, pinto beans, lentils, and peanuts. Sprinkle one tablespoon of freshly ground flaxseed on salads and in soups and other dishes as an additional source.

If you like the idea of protecting yourself with phytoestrogens, but you don’t find the flavor of tofu even remotely appealing, and you don’t think beans are a gas (or they give you gas), then you may want to try one of the great new products developed
recently in capsule, tablet, or powder form. Several kinds of products are available, including soy extracts, red clover extracts, and blends of soy, red clover, and kudzu extracts, all of which contain genistein, the most-studied phytoestrogen.

Take enough capsules, tablets, or powder to give you about 40 to 100 mg of total isoflavones (such as genistein) a day, which is considered safe by many authorities. Japanese and Chinese women get up to 100 mg, or even 200 mg, a day in their normal diet; North American women typically get under 20 mg daily!

**Too little or too much:** Because our ancestors ate a diet high in whole foods like seeds, nut, grains, and beans, their diets provided a good portion of phytoestrogens daily. Some researchers conclude that the modern diet of many people is probably deficient in these hormone-regulating substances — that is, you are getting too few phytoestrogens, which can contribute to increased symptoms during and after menopause, like hot flashes and increased bone loss. Can you take too many phytoestrogens? Probably not from whole foods like beans, but the answer may be yes when it comes to products in capsules that contain pure phytoestrogens like genistein. Researchers conclude that 50 to 80 mg of phytoestrogens like genistein is a safe dosage.

**Pregnenolone**

If you have read promotional literature about the new dietary supplement pregnenolone, you may get the idea that the happy pill has finally been discovered. It certainly has made manufacturers and sellers of the product happy because of its popularity. Pregnenolone, like DHEA, is a steroid hormone made in the adrenal cortex and brain that is a precursor to, or starting material of, other steroid hormones. Your body’s levels of this important building block, an active hormone in its own right, decline with advancing age. Your brain cells use pregnenolone to make DHEA. Pregnenolone has few clinical studies to
its credit, so many questions about long-term safety still remain unanswered.

**Key functions of pregnenolone:**

- May improve mood and help reduce depression when taken either by itself, or in combination with DHEA.
- May have potent learning and memory enhancement effects. Pregnenolone improved spatial learning tasks in men and verbal recall memory in women in laboratory studies.
- May help ease symptoms of rheumatoid arthritis, lupus, asthma, multiple sclerosis, memory problems, estrogen imbalances, and PMS.

**How much to take:** Available products include pills, capsules, micronized (freeze-dried granules) capsules, sublingual tablets, and skin creams. Experts recommend starting with between 5 mg and 10 mg a day, perhaps once or twice a week, unless you are under the care of an experienced health care provider who is familiar with its use. If you are over 45 or 50, your natural levels of pregnenolone may be decreasing. You may be able to take pregnenolone in slightly higher doses of up to 15 or 20 mg a day, but consult with your doctor before doing so.

**Too little or too much:** Pregnenolone needs further study to determine whether any long-term side effects occur. Reported side effects include a feeling of overstimulation, insomnia, irritability, anxiety, skin problems like acne, headaches, loss of scalp hair, increased facial hair growth, and heart irregularities.

**Progesterone**

Progesterone is the hormone most associated with pregnancy and birth. This steroid hormone is secreted by the ovaries and placenta and is
important for preparing the uterus and mammary glands for pregnancy and nursing as well as for maintaining a healthy pregnancy. Progesterone stops ovulation and controls estrogen levels.

Progesterone has become popular in recent years in creams applied to the inner thighs, belly, and other tender areas to reduce symptoms of PMS and other cyclic disorders. A woman’s progesterone levels decrease during menopause, so supplementation during that time is sometimes helpful to reduce undesirable symptoms. For some women, a progesterone supplement may work well and is certainly less risky than taking estrogen supplements, especially long-term. Because progesterone is generally safer than estrogen, supplementation is a good second step for reducing symptoms if a completely herbal and nutritional program is not as effective as you’d hoped.

Key functions of progesterone:

- Helps maintain bone strength.
- When taken with calcium and other bone-building nutrients, and combined with regular exercise, may reduce the risk of osteoporosis.
- Often added to estrogen supplements during and after menopause to reduce the risk of uterine cancer often linked with estrogen.
- Used to control perimenopausal mood swings, hot flashes, PMS, and dysfunctional uterine bleeding.
- Used as an ingredient in birth control pills.

**How much to take:** To determine your best dosage, follow the advice of your health-care practitioner, or start with the amount on your product, which is usually conservative. For premenstrual symptoms, natural progesterone can be helpful when taken at the second half of the cycle.

**Too little or too much:** If your body is producing too little
progesterone, as determined by a saliva or blood test ordered by your health care practitioner, then supplementation may be helpful. If you have normal levels and take a progesterone supplement, your symptoms could worsen.
Chapter 8
Common Supplements for Digestion

In This Chapter

- Developing healthy habits for maintaining good digestion
- Finding out about the top digestive supplements
- Understanding when to use beneficial bacteria (probiotics)
- Using herbal bitters to improve digestion

Through our considerable experience in working with patients, we have come to believe that digestion is the single most important function that determines health and contributes to disease. A well-functioning digestive system can lead immediately to higher energy levels, stronger protective immunity, and a healthier overall life.

Here are some effective ways to build and maintain a powerful digestive system:

- Chew your food well.
- Eat high-quality, whole, unprocessed foods.
- Avoid eating when you are under stress.
- Relax before and during eating.
- Avoid consuming excess quantities of food or too many different foods in one meal.
- Try not to eat anything for at least two hours before you go to bed, so that your digestive system can rest while you do.
Unfortunately, as you probably know only too well, all this is easier said than done. You have access to a seemingly limitless supply of processed foods. Millions of people a day eat fast foods on the run, and much of the nutrients in the original food are depleted. Judging from the statistics on obesity, which show that over 50 percent of the population of North America is overweight, millions are chowing down on empty-calorie foods like they were eating their last meal. Add to this the everyday stresses of modern society, and you have a substantial list of factors that can severely weaken your digestive functions.

Supporting your digestion with enzymes, hydrochloric acid, herbs, and other nutrients is a great place to start before taking that trip to the corner drugstore to choose from among the many digestive aids, which are full of artificial colors and preservatives, as well as potentially harmful drugs. (See the sidebar “A digest of over-the-counter digestive aids” for more information about these products.) Whether your digestive system is overworked or working well, you’ll find the following supplements worthwhile allies in creating and maintaining digestive wellness.

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<th>A digest of over-the-counter digestive aids</th>
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<td>Here’s a quick look at some of the famous digestive aids that millions of people reach for automatically when they have digestive pain or upset. We’ve included a quick look at the ingredients and potential side effects of each product. You’ll find fewer problems taking popular herbal and dietary supplements, such as peppermint oil, fennel seed, ginger, natural enzymes, and bitters.</td>
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- **Alka-Seltzer**: Contains aspirin, which causes stomach bleeding and is potentially harmful to your liver.
- **Maalox**: Includes aluminum hydroxide. Aluminum
absorption from antacids is a possible risk factor for Alzheimer’s disease, and it may increase your risk of bone fractures because it weakens your bone structure.

✔️ Mylanta: Includes aluminum hydroxide. Aluminum absorption from antacids is a possible risk factor for Alzheimer’s disease, and it may increase your risk of bone fractures.

✔️ Philips’ Milk of Magnesia: Contains sodium saccharin and artificial colors, both of which may be risk factors for the development of some cancers, especially when used consistently long-term.

✔️ Tums Ultra: Contains artificial food colors. These dyes can affect brain chemistry, particularly in children, and many have mild cancer risks. The labels often don’t specify the exact colors.

✔️ Pepto-Bismol: Contains aluminum, artificial colors, sodium saccharin, and bismuth subsalicylate, which can lead to digestive problems such as nausea and loss of appetite in more than 10 percent of the people who take it. Long-term effects can be much more serious.

Hydrochloric Acid

When you eat protein or fat, specialized cells in your stomach produce and secrete hydrochloric acid, or HCl. Stress can also stimulate the secretion of this caustic but necessary acid, which is extremely important for proper digestion, particularly in helping to break down proteins and, secondarily, fats. HCl aids in the absorption of minerals such as calcium, iron, and zinc; folic acid; and other nutrients.

HCl production often declines in the elderly, in people taking
medications (especially the irritating anti-inflammatory medications), and in people who eat chronically poor, processed diets. HCl supplementation is helpful for people who are experiencing low hydrochloric acid levels, which may contribute to allergies, chronic acne, asthma, anemia, arthritis, malnutrition, intestinal problems (such as indigestion and flatulence), gallstones, and a variety of other medical conditions.

People with low stomach acid production may benefit from taking HCl in the form of betaine HCl, a form that your body can utilize. You can take this commonly available supplement, usually found in five-grain (about 325 mg) capsules, with foods containing protein, such as meat, fish, dairy products, rice, or beans. Take one to three — or even as many as six — capsules. Start with 1 or 2 capsules in the beginning or middle of a meal; if that dose suits you, and you like the effects, you can take 3 or 4. If you experience a burning sensation in your stomach, reduce the amount back to 1 or 2 capsules.

Another enzyme, called pepsin, often included with the HCl capsules, also helps your body digest proteins. This combination supplement can also reduce exposure to microbes when you are traveling in a foreign country or eating risky foods, like raw fish. You may also choose to take HCl with pepsin during treatment of intestinal yeast overgrowth or parasite infections.

If you don’t want to take a hydrochloric acid supplement for the rest of your life, don’t forget that you can often maintain an adequate level of HCl by eating mostly wholesome, fresh foods in a relaxed state, chewing your food thoroughly, and avoiding chemicals, drugs, and processed foods.

Consider taking an herbal bitters formula containing the herb gentian 10 to 20 minutes before meals to stimulate production of your own HCl.
Digestive Enzymes: Amylases, Lipases, and Proteases

Made from vegetable sources or extracted from bacteria or animal pancreas, these agents assist your own digestive enzymes in improving digestion, allowing your body to assimilate the foods you consume and the nutrients they contain. Certain products focus on specific types of enzymes for people who have difficulties with particular foods. These products include lipases to digest fats, proteases (such as trypsin) to digest proteins, and amylases to digest carbohydrates.

Stress, poor diet, and a variety of microbes (bacteria, yeast, and parasites) can weaken digestion and enzyme output, leading to incomplete digestion and subsequent malabsorption of larger-than-usual food molecules. This “leaky gut syndrome” may be a major cause of food allergies, as well as immune and digestive dysfunction.

Digestive enzymes may be useful for treating indigestion, gas, bloating, and allergic conditions. They may also be effective in relieving many chronic health problems, such as arthritis, because they help the digestive system and the body in general work more efficiently.

Many combination enzyme products are sold today in natural food stores, pharmacies, and even supermarkets. We recommend starting with a product that contains all three enzymes to help you digest carbohydrates, fats, and proteins. Follow the label directions, and take the supplement before meals.

Some foods and herbs contain high quantities of naturally occurring digestive enzymes. These include hawthorn fruit, sprouted wheat berries, and naturally fermented foods like sauerkraut, yogurt, kefir, pickles, apple cider vinegar, and the Korean relish kim chee. Use these foods and herbs regularly to supplement your natural digestive enzymes.
Bromelain and Papain

How about some help from tropical fruits — nature’s source of potent starch- and protein-digesting enzymes (shown in Figure 8-1)? Papain and bromelain are active plant enzymes found naturally in papaya and pineapples, respectively, that are extracted for use in supplements.

Papain, which often has a positive effect on your ability to digest protein, is available in tasty, chewable tablets. German physicians have prescribed papain tablets for years to help their patients find relief from chronic pain, burning sensations, and bloating associated with meals. Early 20th-century doctors prescribed the enzyme for relieving heartburn, gas, and constipation.

The suggested dosage of papain is 100 mg daily.

The Scent of Green Papaya was a popular movie. The writers more than likely got the idea for the title from a wonderful traditional Thai dish, green papaya salad. Try a serving of this tangy and refreshing salad before the main meal to bring your digestion and your taste buds alive, as well as to supply a good portion of the protein-digesting enzyme papain.
Green Papaya Salad

This delicious salad is extremely popular in Thailand and in the ever-popular Thai restaurants in the United States. It is a tasty way to begin a meal and will help your digestive tract handle all that hot curry.

2 fresh serrano chilies, thinly sliced
1 tablespoon chopped garlic
1 tablespoon chopped green onions
1 small green unripe papaya, peeled and finely grated
2 tablespoons tamari, or soy sauce, mixed with 1 teaspoon cornstarch or 2 tablespoons fish sauce
1/4 teaspoon salt
1/2 lime

1 Place the chilies, garlic, and green onions in a food processor or blender. Spin the mixture for 30 seconds.

2 Remove the mixture from the blender or food processor and place it in a bowl. Add the papaya and mash the entire mixture for 2 or 3 minutes until it becomes soft.

3 Add the tamari or soy sauce mixture and salt and stir well.
4 Squeeze the lime juice over the top.

Bromelain is even more useful. Besides aiding in starch digestion, it can help reduce the chronic inflammation of arthritis. It is often used post-surgically to help the body heal faster. When used regularly, bromelain may help to reduce chronic inflammation, scarring, and the formation of fatty deposits in your arteries — the root causes of cardiovascular disease.

The suggested dosage of bromelain is between 500 and 2,000 mg daily, in two doses.

Probiotics: Acidophilus and Other Beneficial Bacteria

Millions of teeming bacteria are in your colon right now, but not all of them are bad. In fact, many bacteria are essential for good digestion. Common helpful bacteria, called probiotics, include *Lactobacillus acidophilus*, *Lactobacillus bulgaricus*, *Lactobacillus bifidus*, and *Streptococcus faecium*. These species commonly occur in traditional fermented foods such as sauerkraut and yogurt.

Probiotics help the body in many ways. They reduce or prevent the overgrowth of problematic organisms and help to break down the foods you eat. They also manufacture some B vitamins and other nutrients and can help correct digestive upset and inflammation.

People with digestive disorders, such as gas, bloating, diarrhea, indigestion, “stomach flu,” and colitis, and those traveling to areas where exposure to bad microbes may be a concern, commonly use probiotic supplements. These supplements can also help relieve and prevent canker sores, irritable bowel disorder, vaginal yeast infections, bladder infections, lactose intolerance, Montezuma’s Revenge.
(traveler’s diarrhea), and even tooth and gum disease. The possible beneficial effects of regular use of probiotic supplements include cholesterol reduction, improved digestion of milk products, and the manufacture of B vitamins by bifidobacteria (the main bacteria in children). The last benefit is especially important because vitamins and minerals are not made in the body other than in a few exceptions.

The most common and important use of probiotics is to counter the adverse effects of antibiotic use on your normal intestinal bacteria. Antibiotics often cause a severe imbalance of beneficial bacteria and allow more potentially harmful bacteria to take their place. Other factors that may reduce the number of healthy bacteria in your colon include the following:

- Regularly drinking chlorinated and fluoridated waters and alcoholic beverages
- Frequent consumption of commercial meats containing antibiotic residues
- Exposure to harmful chemicals, such as trihalomethanes from chlorinated water and pesticides in foods and water
- Excessive consumption of sugar, fat, red meat, and refined foods, or a generally poor diet
- Persistent stress

You can take a probiotic supplement for months, or even longer, if you find that doing so is beneficial. Remember these important points:

- Buy only products that are refrigerated and are a powder or capsule form.
- Take the capsules with meals, because the bacteria in these supplements need something to feed on, grow, and flourish.
- Use the product for two to three months, and then take a few weeks off to see whether it’s still providing benefits. Once a
healthy bacterial flora is established, it may not be necessary to continue taking the supplement.

Take one capsule with each meal, up to a total of three capsules a day, depending on the product’s potency. Many good products have up to 3 billion organisms in each capsule, and you need between 6 and 10 billion organisms daily.

You can also get beneficial microorganisms or their healthy by-products (like lactic acid) by eating sauerkraut, yogurt, sourdough bread, olives, pickles, and apple cider vinegar on salads.

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**FOS: FructoOligoSaccharides**

FructoOligoSaccharides are naturally occurring carbohydrates that nourish and support probiotic bacteria. Often added to probiotic formulas, they occur naturally in such foods as bananas, wheat, barley, and honey. Taking probiotic supplements when you eat these kinds of foods is a good idea. Their role is to feed and support your healthy bacteria. In sensitive individuals, these foods may contribute to gas and bloating.

If you’re sensitive to dairy products, you can buy probiotic supplements in capsule form that use nondairy fillers such as FOS.

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**Herbal Digestive Supplements**

Many cultures use bitter tonic formulas, known as *bitters*, extensively to strengthen not only the digestion but the entire nervous system and the body’s vital energy as well. In Europe, it is common to make a social stop at a café on the way home from work to drink bitters and prime the digestive tract for the evening meal. You may be familiar with angostura or campari bitters, which are available in liquor stores.
and some restaurants. Many ready-made herbal bitters formulas are available in natural food stores.

Bitters work in three major ways:

- They activate the gastric secretion of hydrochloric acid and digestive enzymes. This increases the nerve tone of the muscles in the digestive tract and improves blood circulation, which helps the body absorb nutrients and eliminate wastes more efficiently.
- They increase the strength and tone of the division of the nervous system that energizes the digestive organs.
- They activate the immune system.

Some practitioners recommend bitters for convalescence, chronic fatigue syndrome, inflammatory bowel disease, and yeast infections. You may want to try taking bitters for these conditions:

- Poor fat or protein digestion (feeling bloated or uncomfortable after meals containing fats or proteins)
- Weakness due to chronic illness; lowered energy
- Painful digestion, intestinal cramps, or excessive gas
- Irritable bowel syndrome
- Poor appetite
- Anemia
- Digestive weakness due to mental overwork and/or lack of exercise

You must take bitters over a period of weeks or months for them to achieve their full effects. Take your formula half an hour before (optimally) or just after eating. Generally, 1/2 to 1 teaspoon of a liquid extract or 2 teaspoons of a bitters tea is sufficient.

The most renowned herbal bitter, and the most bitter herb of all, is
gentian. Other important bitter herbs are artichoke leaf, angelica root, bitter orange peel, and wormwood. A sample bitters formula is 1 part artichoke leaf, 1 part orange or tangerine peel, 1/4 part gentian root, 1/4 part cardamom seed, and 1/4 part ginger root. You can make this formula into a tea or purchase ready-made herbal bitters in natural food stores.
Chapter 9
Superfoods and Other Great Supplements

In This Chapter
► Getting acquainted with the giants of the supplement world — spirulina, chlorella, and blue-green algae
► Using nature’s vitamin Bee: bee pollen
► Tuning into popular arthritis fighters
► Protecting yourself with potent antioxidants
► Other useful supplements you can use

Just when you thought you had a handle on vitamin E and vitamin C for protecting your heart, calcium and magnesium for your bones, and ginkgo for your memory, you can barely find them on the shelves anymore because so many other supplements are showing up at your local store. New products are entering the market every week, it seems. Some are helpful, and some will go the way of bad Web sites . . . they’ll mysteriously disappear.

In this chapter, you can read about popular supplements that don’t easily fit into the major categories covered in Vitamins For Dummies. We show you how to increase your energy with superfoods, protect your heart with CoQ-10, ease the symptoms of arthritis with chondroitin sulfate and glucosamine sulfate, and put the brakes on the speeding train of aging.
Superfoods: Green Power and Bee Power

Superfoods are simply foods that share the following two characteristics:

- ✔️ They are extremely easy for your body to break down and assimilate
- ✔️ They are nutrient-dense (That is, they contain a high concentration of nutrients your body needs.)

The following sections introduce you to some of the most popular superfoods that we find most effective in our clinical practices.

Algae — Nature’s solar cells

Spirulina, chlorella, and blue-green algae are freshwater and saltwater algae that are often cultivated and harvested from growing ponds. These algae soak up sunlight and create large quantities of vital nutrients like vitamins and chlorophyll. Algae are packed with vitamins, minerals, and amino acids, which build the proteins that provide you with energy. These algae are also recommended by some health practitioners to be used to treat gastrointestinal problems, to alleviate stress and fatigue, or to help you eliminate substances such as caffeine, sugar, alcohol, and nicotine from your life.

Available in powders, liquids, tablets, and capsules, these algae usually contain all the essential amino acids, and thus act as complete protein additions to the diet, which can be especially helpful for vegetarians who may be protein-deficient.

You can take two or three capsules or tablets of these algae twice daily with your meals. You can also sprinkle 1/4 to 1 teaspoon on
your food, twice daily, or blend about 1 teaspoon into a nutritious energy shake.

For optimum health, we recommend getting most of your vitamins, minerals, amino acids, fatty acids, and other nutrients from the foods you eat. It’s impossible to beat nature’s fresh foods for the balance of essential nutrients your body needs daily. Fresh whole foods and juices are also your best value. Remember that manufacturers often add dollars to the cost of the supplements you buy to pay for advertising and marketing. Still, if you have a busy lifestyle, or you simply haven’t been able to create the perfect diet for yourself everyday, supplements like superfoods can offer convenience and excellent value.

In the following sections, we tell you more about these types of algae.

**Spirulina**

Spirulina is a blue-green algae with an easily digestible cell membrane, which makes it easier for your body to absorb spirulina’s nutrients. (Many plant cell walls are made of cellulose and are more difficult to digest.) Spirulina has been consumed for centuries — the ancient Aztecs used it as a food by itself. This supplement is particularly popular as a protein supplement. Many of our patients have reported increased energy, and more effective cleansing fasts, used to rid their bodies of toxins. Spirulina may also help enhance your immune system and protect against cancer and infections. Because of its high content of L-tryptophan (the amino acid that’s a building block for the neurotransmitter serotonin, which influences moods), regular use of a spirulina supplement can help you maintain healthy brain chemistry and a good mood.

While spirulina, barley grass (which I discuss later in this chapter), and sprouted barley grass juice powders are rich in nutrients, they are often expensive, compared with other food sources containing the same nutrients. Nutritional yeast, alfalfa
powder, and dried vegetable powders like carrot, spinach, and beet root, along with sea vegetables like wakame and nori, offer the most dense nutrient package for your money.

**Chlorella**

Chlorella is a single-celled marine algae that is one of nature’s most potent sources of chlorophyll. Chlorophyll is a great source of magnesium and a potent detoxifier, purifier, and deodorizer. Chlorella is also rich in vitamin B-12, which is a common deficiency in vegetarians, as well as the cancer protector, beta-carotene. Chlorella also contains all eight essential amino acids, iron, selenium, and zinc. Consider taking chlorella during cleansing programs (for instance, to remove heavy metals like lead and other environmental toxins from your body), when you have an infection, as part of a total program with dietary changes and exercise to regulate your blood pressure, to strengthen your blood, and with your program to slow the aging process. (For more information on metals, see Chapter 5, and check out Chapter 2 for information on cleansing diets.)

If you’re a strict vegetarian, you may want to take a B-12 supplement. Controversy exists about how well vegetable sources of B-12 are absorbed and utilized in your body.

Chlorella is one of the most efficient protein-producers known — up to 50 times more efficient than soy and rice, and over 200 times more than meat products. This means that when you depend on chlorella for some of your protein needs, you use fewer of the world’s resources.

**Blue-green algae**

Blue-green algae is grown naturally in Klamath Lake in Oregon and is very popular as a nutrient-rich supplement for detoxification programs. Blue-green algae contains *phytocyanin*, a potent antioxidant and anti-inflammatory agent, and is a useful source of *gamma-linolenic acid*
(GLA), a component of evening primrose oil that’s used to treat eczema, arthritis, and other ailments.

Take 1/4 to 1/2 teaspoon in a little water or juice, one or two capsules twice daily around mealtimes.

Barley and wheat grass

The dried juices of these vital nutrient-rich grasses are excellent sources of chlorophyll, which helps your body build healthy red blood cells and neutralize toxins. These grasses are also rich in vitamins, minerals, and antioxidant enzymes and are excellent sources of beta-carotene, B vitamins, and essential amino acids. Not only do they provide you with low-calorie nutrition, but they also may have anticancer and antibacterial effects, and properties that boost your immune system, as well.

The following list tells you more about why these grasses are such great supplements.

✔ Barley grass: Barley grass contains a potent enzyme called P4D1. This particular enzyme’s activity can help treat peptic ulcers, inflammation, and cancer in laboratory tests. P4D1 was also touted at the 1981 Japan Pharmacy Science Association annual meeting as a substance that stimulates DNA repair, including the DNA in your reproductive cells.

✔ Wheat grass: A teaspoon of wheat grass powder has about 13 times more minerals and vitamins than spinach does. Today, Popeye would be popping wheat grass pills instead of downing a can of spinach when Olive Oyl is in trouble. (Of course, if you took the water out of spinach, the wide difference in nutrient level would be much smaller. So maybe Popeye would be popping spinach supplements today.)

You can use barley or wheat grass (along with various algae) to make
green drinks that help you cleanse and purify your body and build energy. Green drinks like the one in this section are high in nutrients and energy for your body’s cells — and they’re great-tasting as well. A green drink can also help you lose extra pounds, because it’s so high in nutrients that your body is satisfied quickly, shutting off hunger cravings.

**Green and Lean Power Drink**

1 cup apple juice
1 banana (and 1 frozen banana if desired)
2 tablespoons wheat germ
1 tablespoon flax seeds
1 teaspoon barley or wheat grass
1 teaspoon alfalfa powder (optional)

1 Combine all the ingredients in a blender.

2 Blend for two minutes, pour the drink into a glass, and enjoy.

Use 1/2 to 1 teaspoon of barley or wheat grass in detoxifying drinks during fasts and cleansing programs. (See Chapters 2 and 11 for more information on cleansing programs.)

**Bee products: Pollen, propolis, and royal jelly**

Imagine the industry and energy of a bee that makes countless trips every day of its life to visit hundreds of flowers, collecting the nutrient-rich pollen to sustain the hive. According to traditions and current research from Eastern Europe and Russia, bee pollen is one of nature’s most complete and sustaining foods. Bee pollen contains amino acids, vitamins (especially rutin and other bioflavonoids), minerals, fatty
acids, and an abundance of enzymes. In Russia, some of the world’s oldest people say they thrive on pollen, which they take daily as a regular part of their diets. Besides pollen, bees also produce propolis, royal jelly, and other potent healers, which we tell you about in the following sections.

**Bee pollen**

Bee, or flower, pollen appears to have some natural antibiotic effect. Uses include treating prostate problems, increasing endurance in athletes, and reducing alcohol cravings. Bee pollen is said to support the body’s innate healing powers, boosting cellular maintenance and protection.

If you suffer from food or other allergies, start taking bee pollen at a low dose for a few days to check your sensitivity. Very small amounts of bee pollen from local bees may provide a means to desensitize yourself from the local pollens, similar to the way allergy shots work. (See the entry on allergies in Part 5, the “Complete Supplement Program for Common Diseases and Symptoms.”) Try taking a bee pollen capsule with your meals, twice daily, starting a month before hayfever season.

**Propolis**

*Propolis* is a resinous substance manufactured by bees from a naturally occurring leaf resin in cottonwood trees. Bees use it to seal their hives against bacteria or fungal infection. It is rich in bioflavonoids and has demonstrated anti-microbial, antiviral, and antifungal effects. Suck on a small piece of propolis, or a lozenge that contains some, to help heal a cold, sore throat, or other respiratory tract infection. A few drops of propolis alcoholic tincture applied to a cold sore, mouth ulcer, or bacteria pockets in the gums (periodontal disease) can do wonders for easing pain and speeding the healing process.
**Royal jelly**

*Royal jelly* is a superfood that bees use to feed the queen bee, who grows to great size and produces thousands of eggs in her lifetime. (And her lifetime is up to 30 times longer than those of other bees!) Royal jelly appears to contain hormone precursors and immune-boosting substances that protect the queen from infections. Used in products advocated to boost energy and support your adrenal glands and immune system, royal jelly is rich in B vitamins, especially pantothenic acid.

Royal jelly remains popular, even though science has yet to substantiate many of the health claims made by its manufacturers.

Royal jelly comes in capsules and is often combined with honey, wheat germ oil, bee pollen, or ginseng, perhaps to enhance the touted longevity effects in humans. Royal jelly is also combined with vitamin E and added to skin creams that are reported to help preserve youthful skin.

**Coenzyme Q-10: The Fountain of Youth?**

An extremely popular but moderately expensive supplement, Coenzyme Q-10 (CoQ-10) is found naturally in seafood, meats, and whole grains. It occurs throughout your body — it is *ubiquitous*, which means widespread, and thus its scientific name is *ubiquinone*. Because CoQ-10 levels often decline in your body as you age, some researchers have proposed that CoQ-10 may be helpful in slowing the aging process.

CoQ-10 functions to help the cells of your body produce energy in the
mitochondria — the power centers of the cell. CoQ-10 works specifically in the cells of your nervous system found in the heart, nerves, and brain, and is concentrated in the metabolically active liver, which performs many vital processes of creating enzymes and hormones, as well as the breaking down functions of toxins and hormones.

CoQ-10 acts as an antioxidant protecting tissues (especially heart tissues) from free radical damage, radical oxygen molecules that attack your cells. It also acts as an immune supporter by regulating immune processes, an energy enhancer by enhancing the manufacture of energy molecules in your cells, and a cancer-fighting substance. Some published studies on this supplement show size reduction in breast cancer tumors.

Use this coenzyme (a substance needed for the function of enzymes) in conjunction with exercise and weight loss programs because it is one of nature’s most potent antioxidants, cell-growth regulators, and energy-enhancing substances. It can also protect against diabetes and cardiovascular problems, including arrhythmia, cardiomyopathy (enlarged heart), congestive heart failure, and hypertension.

CoQ-10 is also potentially useful in treating many other symptoms and diseases, such as tinnitus (ringing in the ears), senility and Alzheimer’s disease, male infertility and low sperm counts, and general fatigue. For a few years, CoQ-10 was popular for reducing symptoms of periodontal disease, but this use is controversial because it’s not scientifically proven.

According to reports, CoQ-10 can decrease your response to Warfarin (Coumadin), a blood-thinning drug. Consult your doctor before using CoQ-10 in conjunction with pharmaceutical drugs for serious ailments like congestive heart failure or bleeding disorders.
Essentially free of side effects, CoQ-10’s recommended dosage is 20 to 90 mg daily for basic support and up to 300 mg daily in divided doses for congestive heart failure and cancer-protective programs. Some people notice a specific increase in energy if they take the higher dosage.

Taking CoQ-10 with nuts or nut butters like peanut butter can increase absorption of this valuable nutrient.

Building Cartilage with Glucosamine Sulfate and Chondroitin Sulfate

*Glucosamine sulfate*, or just *glucosamine*, is a raw material needed by your body to make substances that your joints use to build and maintain cartilage, as well asrepair damaged cartilage.

Glucosamine is perhaps the most popular dietary supplement for easing the symptoms of osteoarthritis. (Its benefits for this purpose are backed by scientific studies.) Many members of the medical community recommend its use, and in our experience with patients, glucosamine is often more effective than other stronger and more toxic drugs. This supplement is less effective or ineffective, however, for *rheumatoid* arthritis.

Although glucosamine is rapidly developing an excellent reputation for the treatment of osteoarthritis, it may also prove helpful for speeding the healing of wounds and to reduce symptoms of some gastrointestinal disorders.

Start with 500 mg of glucosamine sulfate three times daily; for acute joint pains, you can take 1,000 mg three times a day, without any side effects. You may find that higher dosages taken less frequently are more effective, but two or three weeks are
necessary before you’ll notice its benefits, so hang in there.

*Chondroitin sulfate* is one of the materials in substances that heal your joints, but no one has proved that it’s readily absorbed from the human intestines, and we aren’t certain that it’s an active ingredient in these joint-healing formulas.

You can take 400 mg of chondroitin sulfate three times a day.

*Chondroitin sulfate may actually have a more beneficial effect on cardiovascular health when used in higher amounts.*

### Creatine

*Creatine* (creatine monohydrate is the scientific name) occurs naturally in your body in muscle protein. It has recently become popular for athletes and workout queens and kings. Found naturally in animal proteins, creatine is a major energy source for your muscles. However, even if you’re a vegetarian, creatine deficiency is uncommon because your body manufactures it.

Athletes typically use creatine to enhance performance, especially for intense activities, such as running, cycling, and weight lifting. Some nutritionists believe that it helps build more muscle. Creatine supplements can increase your endurance during physical activity and shorten the time your body needs to recover.

One study showed that creatine supplementation enhanced performance and muscle and bone mass in sprinters and weight-lifters. Creatine supplementation did not increase performance in elderly weight-lifters.

The typical dosage suggested is 5 to 25 grams of creatine monohydrate, usually taken 30 to 60 minutes before exercise.
Dimethylglycine (DMG) and Trimethylglycine (TMG)

DMG is an underused supplement related to the amino acid glycine. Most of the research on DMG has been done outside the United States and has focused on athletic performance, energy, the immune function, and seizure reduction. DMG appears to help with the treatment of fatigue, help fight off infections, and helps to improve the mood and concentration of children with autism.

TMG may work similarly and even a little better, because it has an extra component, called a methyl group, to enhance biochemical reactions in your body. TMG has recently been used to lower homocysteine levels and reduce risks of cardiovascular problems, and is reported by some users to increase energy levels. Homocysteine levels are strongly associated with an increased risk of heart attack and stroke.

DMG is very safe and is usually taken in 125 mg sublingual tablets up to three times daily.

Other Helpful Supplements

Although they don’t fit into any other handy category we cover in this chapter, you’ll want to know about these popular supplements. The following sections show you some of the most potent protectors, energy-boosters, and cancer and heart disease-fighters available today.

Modified citrus pectin

*Modified citrus pectin* is a pH-altered form of citrus pectin that research
shows to interfere with the spread of cancer cells by inhibiting their ability to adhere to other cells in the body. Researchers have also found that it enhances the activity of natural killer immune cells required to destroy migrating cancer cells in the bloodstream. More research is needed, but initial research indicates that it is without side effects.

The suggested dosage is 15 grams daily divided into 2 or 3 doses.

**Octacosanol**

A naturally occurring alcohol found in some medicinal fruits, like saw palmetto, and in wheat germ, *octacosanol* is added to energy and tonic formulas. Researchers have studied octacosanol for easing symptoms of Parkinson’s disease and the neurological ailment, ALS, with mixed results.

Octacosanol is thought to enhance oxygen metabolism by your body’s cells, which may possibly increase your endurance, energy levels, and reaction time. Little scientific proof of its effectiveness or safety is available.

**Gamma oryzanol**

A naturally occurring plant sterol, a few studies indicate that *gamma oryzanol* may be useful for normalizing fat levels in your blood. In one study, patients taking 100 mg, three times daily for three weeks, experienced a reduction in their “bad” cholesterol (LDL) level, as well as a reduction in other markers for increased risk of developing heart disease. “Good,” protective cholesterol (HDL) levels remained the same.

**HCA (Hydroxycitric acid)**
Hydroxycitric acid (HCA) occurs in high concentrations in the fruit rind of a small South Indian fruit called *Garcinia cambogia*. Some clinical studies show that HCA can suppress the appetite, increase metabolism, enhance endurance, and inhibit the production of fats and cholesterol, while other studies have found it no more effective than a placebo.

To enhance its effectiveness, HCA should be taken 30 to 60 minutes before meals, and it has been proven more effective when taken two to three times per day than when taken only once. Dieters often take 250 to 500 mg of HCA three times per day (before meals) as a weight loss aid, though these amounts are far below the levels used in animal research (figured on a per-pound body weight basis). HCA supplements are available in many forms, including tablets, capsules, powders, snack bars, and chewing gum.

## Shark cartilage

Shark cartilage is a food supplement made from the powdered cartilage of sharks. It’s rich in calcium and phosphorus and has shown wound-healing properties in research. Further research is needed, but researchers are investigating this substance for its potential role in regulating your immune function, halting the growth of tumors, and halting the spread of cancer. It may also be beneficial for osteoarthritis and rheumatoid arthritis.

When shark cartilage is taken orally, it’s generally mixed with a pulpy juice such as pineapple, tomato, or apricot nectar. Up to 20 grams (4 level teaspoons) of shark cartilage powder are blended in a mechanical blender with 6 to 8 ounces of juice and taken three or four times daily, usually before meals.

**Safety Tip**

Shark cartilage should not be used by anyone who is still growing, anyone who is pregnant, anyone with cardiovascular
disease, or anyone recovering from surgery.

**Sea cucumber**

Also called *sea slug*, this marine animal is harvested and processed to create a supplement that has gained popularity only recently. Traditional Chinese herbalists prescribe extracts from sea cucumber in formulas to treat impotence, nocturnal emission, and frequent urination. Current uses include treatment of joint, ligament, and tendon conditions, including arthritis. Although some scientists think sea cucumber may be a promising supplement, more research is needed.

**Oligomeric procyanidins (OPCs)**

If you’ve ever tasted the astringent taste of green tea in a Chinese restaurant and it made you pucker, then you’ve also supplemented yourself with the difficult-to-remember oligomeric procyanidins (OPCs). OPCs are nature’s most potent free-radical scavengers to protect your tissues’ cells from these destructive molecules and are cancer-fighters as well. OPCs are related to a group of chemical compounds called *tannins*.

Green tea is the second most popular beverage in the world. (Water is the first.) In China and Japan, people who drink more green tea have a lower incidence of cancer and generally live longer. Many scientific studies show that drinking green tea daily, or taking a supplement containing green tea extract, can prevent tooth decay, protect your heart, and give your immune system a helping hand to prevent cancer.

The potent heart-protecting herb hawthorn contains ample OPCs, as do grape seed extract, green tea, and the popular supplement *pycnogenol*, which is extracted from pine needles. Pycnogenol is only available from one company, so it costs more for the same effects.
Resveratrol

High levels of resveratrol are found in broccoli, broccoli sprouts, peanuts, and red wines. Resveratrol may be one of the most potent cancer-fighters and heart-protectors ever discovered. This exciting supplement acts as an estrogen-regulator and may offer some benefits for women during menopause. If you are a teetotaler, you will be happy to hear that purple grape juice contains as much or more than wine, and red grapes are also a good source. (Peel me another grape, please, and give me the peel.) Positive research has fueled a new interest in this protective substance, and it may be useful in programs for treating Alzheimer’s disease, arthritis, cancer, and heart disease.

Resveratrol is found in many red wines, which may help explain moderate red wine consumption’s reported protective effects against cancer and heart disease. Hard liquor and beer don’t contain resveratrol and can actually increase your risk.

Resveratrol is a potent antioxidant, and researchers report that the substance works well with vitamin E and vitamin C. The combination is more powerful than any of the single nutrients. If you’re a drinker, you may benefit from supplementation with resveratrol to protect your body’s cells. If you are not a drinker, you can benefit from the benefits of this antioxidant by drinking grape juice.

Bran, psyllium, and other fiber products

Unless you’re just back from an extended stay in Antarctica, you have probably heard about the benefits of fiber for lowering cholesterol and protecting your heart. Two kinds of fiber are found in foods — soluble fiber like pectin in the skins of most fruits, and insoluble fiber like cellulose, which is a structural material of most plants. If you eat whole
grains, beans, vegetables, and fruits as a major part of your diet, you are getting ample fiber. If you love bacon and eggs and a cup of coffee for breakfast, a burger for lunch, and a steak and white rice or white bread for dinner, you probably don’t get as much as you need.

If you avoid these high-fiber foods like a commute on an L.A. freeway at 5 p.m., you probably won’t live as long or as well as you could, depending on your genetic constitution. Fiber helps cleanse your body of toxic wastes, helps keep you regular, protects your cardiovascular system, and protects your colon against cancer.

Don’t despair if you are still in the early stages of incorporating more fiber-containing foods into your diet, because fiber supplements are available at your local market or health food store, and they’re easy to use daily. Add 1 or 2 tablespoons of wheat bran, freshly ground psyllium seed, or flaxseed (shown in Figure 9-1) to your morning cereal, blender drink, or other foods. Capsules, tablets, power bars, and breakfast and weight-regulating shake mixes containing fiber are also available.

Figure 9-1: Seeds from the flax plant can be added to cereal or smoothies for a nutty taste.
Scientists still aren’t sure whether the cancer-fighting benefits reported for fiber in some studies are from the fiber itself or other nutrients that often accompany it in foods. Either way, consuming more high-fiber foods is a good bet for health.
Chapter 10

Herbal Supplements: The Herbal Top 40

In This Chapter

- Using herbs as supplements for prevention and for relieving symptoms
- Learning when and how to use today’s top herbs
- Finding out about safety issues connected with these herbs

Medicinal herbs are in the news lately, and herbal products are even being advertised on primetime television. Safety is one reason for this resurgence of interest in nature’s remedies. Although no herbal medicine is safe under every condition for every person, herbs are

Do not expect herbs to work exactly like drugs. You often have to take an herbal remedy for several weeks before the full effects kick in, but the patience is usually worth the wait, because you improve your overall health along the way. Herbal remedies can fine-tune and support the inner processes of your body in an entirely natural way. Some herbs do work quickly — within an hour or two — but the accumulative effect of several days is often even better. For instance, valerian root is often effective for calming your mind and nervous system, helping you to fall asleep more easily and to shrug off stress. (Some of our patients have reported good effects from valerian after just one night’s dose, but for some, it takes a week of that evening dose to begin having a refreshing night’s sleep.)

In healing systems around the world, thousands of herbs are known and
used daily for their beneficial healing effects. However, no one can get to know all of these herbs. Most practicing herbalists settle on 40 or 50 of their favorite herbal remedies that they know well. We often tell students and patients to do just that: Get to know a few herbs well. Begin using herbs in your daily life, and feel the benefits. But also get to know when not to use them.

In this chapter, we give you what you need to know to put today’s top healing herbal remedies to use right away. We tell you how to take them, the correct dose, and the most proven benefits, along with safety indications and any known cautions or cross-reactions. The next time you feel a cold coming on, you may be reaching for echinacea instead of aspirin.

**Aloe Vera (Aloe barbadensis)**

The fresh leaf or juice of aloe vera soothes and heals wounds, burns, sunburn, and poison oak (aloe vera is safe for use around the eyes). You can also use aloe vera internally as a general bowel cleanser and for constipation, ulcers, colitis, and arthritis.

For burns, bites, and other skin trauma, apply the gel directly on the skin; for internal use, drink 1/2 cup of the juice twice daily after meals. Many people like to mix it with fruit juice to improve the flavor.

**Black Cohosh (Cimicifuga racemosa)**

Black cohosh has a long history of use for treating female complaints, such as premenstrual syndrome (PMS), symptoms of menopause.
(particularly hot flashes), and painful menstruation. It is also taken in the last two weeks of pregnancy for the facilitation of labor (with the counsel of a practitioner). You can also use black cohosh to treat rheumatism, bronchitis, and tight muscles.

This herb has been overharvested in the wild, so when buying black cohosh products, look for ones containing cultivated herb.

Take 1 tablet, twice daily with meals. Or add 1/2 to 1 teaspoon of the liquid tincture to a little water or juice and take between meals, twice daily.

Do not use black cohosh during pregnancy except under the care of an experienced health care practitioner.

**Burdock (Arctium lappa)**

Herbal practitioners consistently recommend burdock, a cleansing herb, for various skin disorders, including acne, eczema, and psoriasis. Burdock root also has a beneficial effect on the liver, and practitioners prescribe it for liver stagnation, with symptoms such as poor digestion and difficulty digesting fats. Try using this useful herb for rheumatism, arthritis, and gout.

You can often find burdock roots in the produce section of natural food stores. Add them to soups and stews, making your food your medicine.

Take 3 capsules of the dried root, 3 times daily with meals. Or make a tea by simmering 1 teaspoon of burdock per 1 cup of water for 20 minutes. Or drink 1 cup of tea in the morning and 1 cup in the evening.

**Calendula (Calendula**
Calendula, also known as pot marigold or common marigold, is a common ingredient in herbal preparations for healing wounds and virtually all skin problems. It appears to have anti-inflammatory, wound-healing, and immune-stimulating effects. Calendula cream or ointment benefits diaper rash, burns, bruises, bedsores, and healing surgically induced wounds. You can also use calendula internally, in either tea or tincture form, for ulcers in the digestive tract, sore lymph glands, and painful menstruation.

Apply the cream or salve liberally to the affected area, morning and evening. Add 1/2 teaspoon of the tincture to a little water or tea and drink twice daily, away from meals. Or drink 1 cup of the tea 2 to 3 times daily.

**Cascara (Cascara sagrada)**

*Cascara sagrada*, which means “sacred bark,” contains laxative properties. Herbalists recommend it for habitual constipation because it improves bowel tone. Cascara is also useful in treating hemorrhoids, jaundice, and gallbladder problems, because it increases the release of bile from the liver, preventing cell damage.

Follow the directions on the product regarding dosage, and increase slowly if needed.

If symptoms of constipation persist, talk to your doctor. Do not take cascara without professional advice for more than two weeks.

**Cayenne (Capsicum annuum)**
This fiery herb is not only a beloved kitchen spice but also has excellent medicinal benefits. A circulatory stimulant, it increases the supply of blood throughout the body and encourages the removal of toxins. Cayenne acts as a digestive aid and both prevents and relieves cold symptoms. It also contains pain blockers and is included in external skin preparations for shingles, arthritis, and nerve pain.

For external use, follow the product directions; for internal use, take 2 to 3 capsules, twice daily.

If you’re smart, you’ll keep cayenne away from your eyes; otherwise, it will smart.

Chamomile, German
(Matricaria recutita)

People in many areas of the world use German chamomile for indigestion, cramps, and nervousness. It is well suited for many common children’s complaints, such as stomachaches, fever, insomnia, and the restlessness and irritability associated with teething. You can use chamomile creams and ointments externally for burns and skin irritation.

For external use, apply a cream or salve liberally, twice daily. For internal use, drink 2 or 3 cups of tea a day before meals, made by steeping 1 teaspoon of the herb in recently boiled water in a covered pan for 20 minutes. Or add 1/2 teaspoon of the liquid tincture to water and drink two or three times daily.

Cranberry (Vaccinium macrocarpon)
Cranberry, which most people think about in conjunction with Thanksgiving dinner, has climbed up the list of herbal top sellers in the last few years because of its ability to both prevent and treat urinary tract infections. Unsweetened cranberry juice has antiseptic qualities and prevents bacteria from adhering to the lining of the bladder. You can also buy concentrated cranberry juice powder in tablet form. It is rich in flavonoid compounds and a good antioxidant.

Drink 1 cup of the unsweetened juice several times daily. If you’re taking capsules or tablets, follow the directions on the product packaging.

If urinary tract symptoms such as burning or urgency (the feeling that you have to urinate all the time) persist, or if they are accompanied by fever or lower back pain, see your doctor. You could have a kidney infection.

Dandelion (Taraxacum officinale)

Both the roots and the leaves of this common herb have a beneficial effect on the liver and relieve hepatitis, cirrhosis, and liver congestion. The leaves in particular have a diuretic effect, and herbalists recommend them to relieve water retention. You can also eat the fresh leaves in salads as a spring tonic. Uses for the roots include treatment of headache, acne, eye irritation, constipation, and mood swings before or during menstruation, and to increase lactation. The herb stimulates bile activity and is therefore useful for gallbladder problems when taken long-term.

Use dandelion for at least a month — up to two months for best effects. Drink 2 or 3 cups of the simmered herb or root throughout the day. Or add 1 teaspoon of the tincture to a little
water and drink 2 or 3 times daily. If you’re taking capsules or tablets, follow the product directions.

**Echinacea (Echinacea angustifolia, E. purpurea)**

This premier immune-stimulating herb is widely used for colds, flu, and infections. It contains antiviral and antibacterial properties as well. Echinacea can enhance your resistance to disease, making it a good preventive medicine when taken in low doses (4 dropperfuls daily) for short periods (two weeks on, one week off). Additional uses include for skin complaints, such as boils and abscesses, and as a mouthwash for gum problems. Externally, you can use echinacea on burns, wounds, and bites.

Add 2 to 3 droppersful to a little water, juice, or herb tea and drink three to five times daily, depending on the severity of symptoms. Follow the label directions for capsules or tablets. The quality of tinctures is often better in our experience and is the kind of product we recommend, unless you have a problem taking the small amounts of alcohol the products contain.

Avoid using echinacea for more than two weeks at a time, and only when you need it to help your immune system fight off infections.

**Elder (Sambucus nigra)**

Due to its diaphoretic properties, which cause the body to sweat, elder flowers are beneficial for fever, flu, and colds. Herbalists commonly combine this herb with peppermint and yarrow to treat these ailments. Recent research shows that preparations from the small blue or black
berries of elder have potent antiviral properties for helping the body reduce the severity of cold or flu symptoms.

Drink 1 cup of the tea made by steeping 1 cup of the dried flowers in 4 cups of water for 20 minutes, three times daily. Or add 1 teaspoon of the tincture in a little water or juice and drink three times daily. For capsules and tablets, follow the directions on the package.

Feverfew (Tanacetum parthenium)

A popular garden herb, feverfew contains anti-inflammatory properties and is beneficial for both arthritis and migraine headaches. True to its name, this herb helps reduce fever, as well as relieving symptoms of colds, flu, and PMS.

Two times daily, take 2 or 3 capsules or 2 or 3 droppersful of the tincture. (Herbalists currently recommend the whole plant extract over a standardized extract because current science shows it’s more effective.)

If you experience sores in the mouth after taking feverfew, discontinue use. This side effect happens only rarely, however.

Garlic (Allium sativum)

Many cultures around the world have long valued this pungent panacea as an effective treatment for worms and infections. In recent years, due to positive clinical results, practitioners have begun recommending garlic for high blood pressure and high cholesterol. Clinical trials have also confirmed garlic’s antifungal activity in treating candida (yeast
overgrowth). This medicinal kitchen herb is also effective for preventing and treating flu and dysentery.

Cook with several cloves of garlic, or mash 1 or 2 cloves on a salad if you don’t mind the smell. If you prefer, you can purchase deodorized capsules and tablets of garlic from your local herb shop or natural foods store. Follow directions on the label regarding dosage.

If you enjoy using 1 or 2 cloves of garlic a day as medicine, try chewing parsley or taking a teaspoon of liquid chlorophyll afterward to ease the odor.

Ginger *(Zingiber officinalis)*

Used around the world, ginger root is highly popular for giving Oriental dishes a special tang or as a healing herb for digestive and circulatory problems. It has many additional uses as well:

✔️ You can also take ginger to relieve nausea from upset stomach, motion sickness, or morning sickness.

✔️ Herbalists include ginger in laxative formulas to prevent bowel cramping.

✔️ When taken in the early stages of a cold or flu, ginger causes sweating, facilitating the body’s elimination of pathogens (disease-causing agents) and waste products.

✔️ Women can take ginger tea for suppressed menstruation, painful periods, and pelvic congestion.

✔️ You can apply hot compresses of ginger tea externally to relieve inflammation.

Simmer 1 tablespoon of fresh or 1 teaspoon of dried ginger rhizome for ten minutes, let the brew steep for ten minutes, add a little honey if desired, and drink several times a day, preferably
before meals.

**Ginkgo (Ginkgo biloba)**

The ginkgo tree is a beautiful street tree, originally from China but now a common sight in cities all over the world. Ginkgo leaf extracts, which contain antioxidant properties, have a good record of accomplishment. Scientific studies show its benefits for improving circulation and protecting blood vessels.

Here are some of ginkgo’s uses:

✓ By increasing blood flow to the brain, ginkgo improves memory and alertness and has shown promise in treating Alzheimer’s disease.

✓ Ginkgo preparations have benefited people with circulation problems in their legs, enabling them to walk longer distances.

✓ When taken long-term, ginkgo can benefit tinnitus, or ringing in the ears, if it’s not chronic.

Take 2 to 3 droppersful of the tincture or 1 capsule or tablet containing 60 mg of the standardized two to three times daily.

**Ginseng (Panax quinquefolius, Panax ginseng)**

This revered root, native to both North America and Asia, has a long history of use as a cure-all. It is of particular use to people over 50 to increase vitality and sexual energy and strengthen digestion. The elderly find ginseng useful for debility, weakness, low energy, and convalescence. Practitioners of Chinese medicine commonly prescribe
ginseng to improve the functioning of the lungs and stomach and improve digestion.

Two main types of ginseng exist:

 gev Red Chinese ginseng (Panax ginseng) is added to herbal sports and energy supplements. People also take it for lung and digestive weakness. This kind of ginseng has a reputation for increasing both male and female hormone production, improving sexual desire in the elderly, and increasing energy.

*American ginseng (Panax quinquefolius) works well for young people and those wanting to take a ginseng supplement long-term. It is a good tonic for weak adrenals, fatigue, and depression.*

Make a tea by simmering 1 teaspoon of the shredded, dried herb for 30 minutes, and steep for another 20 or 30 minutes. Add honey to taste. And if you feel cold during the winter, add 1/2 teaspoon of ginger. Drink 1 cup of this tea before meals during the day.

Golden Seal (*Hydrastis canadensis*)

Golden seal is a small herb with bright yellow roots that contain an antibacterial chemical called berberine. Golden seal is a widely-used, bitter herb, which soothes infections, lowers inflammation, and cleanses the blood.

Do not take golden seal for more than ten days, and do not exceed the dose listed on the product label.

Herbalists commonly recommend the internal use of this native
American rhizome for colds and flu, stomach ailments, and sinus and bladder infections. External applications include as a wash for conjunctivitis, as a douche for vaginal infections, and as a powder to stop cuts from bleeding.

Take 1 to 2 droppersful or the tincture or 1 to 2 capsules twice daily. Or drink 1 cup of the tea up to three times daily.

When buying golden seal products, look for ones that contain organically grown rhizomes, because the wild populations are dwindling.

Hawthorn (*Crataegus oxycantha*)

Hawthorn directly affects the heart muscle cells, increasing the blood flow to these cells. Extracts of a combination of hawthorn fruits, leaves, and berries improve cardiac function, and practitioners recommend them for atherosclerosis, arrhythmia, angina, palpitations, and hypertension. Hawthorn berries, flowers, and leaves are used in Europe to make widely popular heart tonic medicines for strengthening the heart and benefiting the nervous system.

Use hawthorn berry syrup or a tea or tincture of the flowers and leaves to calm your nervous system. Extracts of a combination of hawthorn fruits, leaves, and berries improve cardiac function, and practitioners recommend them for atherosclerosis, arrhythmia, angina, palpitations, and hypertension.

Hawthorn enhances the activity and nutrition of heart muscle cells. Hawthorn is safe for long-term use and must be taken over a period of several months to be effective.
Take 2 to 3 droppersful of the tincture, 1 cup of the tea, or 3 to 4 capsules of the powder two to three times daily.

Hawthorn can make certain heart medications work better, so you do not have to take as much of them. Make sure to talk to your doctor and herbalist about using digoxin or other heart medications with hawthorn.

**Horse Chestnut (Aesculus hippocastanum)**

Horse chestnut is a large European tree, popular in many cities as a shade tree. Modern research shows that the small, dry fruits of the tree contain substances that can benefit the veins and help the body heal sports injuries such as inflamed and sore muscles and bruises.

Used both internally and externally, horse chestnut acts a tonic for veins, toning and protecting the blood vessels, and benefits hemorrhoids, varicose veins, and phlebitis. It acts as an anti-inflammatory and an astringent and increases blood circulation. Creams containing horse chestnut bark and seeds are becoming increasingly popular for injuries like muscle strains and inflammation, bruises, and various vein problems, such as weak vein walls.

For internal use, take 5 to 20 drops of the tincture three times daily, and follow the product instructions regarding dosage for other products. For external use, apply the cream two or three times daily.

**Kava (Piper methysticum)**

Kava is a member of the pepper family and a relative of the familiar
kitchen spice. People throughout the South Seas have long revered kava for its ability to enhance mental activity and promote relaxation. Kava is also one of the best relaxing herbs for sleeping problems, nervousness, and mild anxiety. Tinctures made from the rhizomes and roots relax muscles and calm the body. Kava drinks, teas, and tablets help heal bladder infections and nocturnal incontinence in small children and the elderly and alleviate insomnia, pain, toothache, mild depression, and fatigue.

In recent trials, patients achieved positive results using kava as a nonaddictive anti-anxiety medication.

Take 2 to 4 droppersful of the tincture or 1 to 2 tablets or capsules of the standardized extract two or three times daily. Or drink 1 cup of the tea several times daily as desired, for anxiety or at bedtime.

Licorice (*Glycyrrhiza glabra*)

The yellow roots and rhizomes of licorice are cultivated in many warm countries to supply extracts for making sweet licorice candy. Licorice is also an important medicinal herb, containing antiviral, anti-inflammatory, and immune-activating properties. The root has a long history of use as a treatment for coughs and bronchitis, gastritis, ulcers, and weak adrenal glands.

Practitioners of Chinese medicine commonly prescribe licorice to replenish vital energy, strengthen digestion, moisten the lungs, and temper both the taste and effect of other herbs.

Drink 1 cup of the tea or take 1 to 2 droppersful of the tincture two to three times daily. Follow manufacturer’s directions for other products.
Marshmallow (*Althaea officinalis*)

No, we’re not talking about the fluffy white things that you roast over campfires. The herb marshmallow has no relation to those white, sugary snacks. Related to cotton, okra, and the beautiful tropical flower hibiscus, marshmallow contains a mucilaginous (gummy) root that’s used internally and externally for soothing inflamed tissues. Its high vitamin A content may account for some of its properties.

Internal uses of marshmallow include easing coughs, sore throat, asthma, bronchitis, and other respiratory ailments. Marshmallow root also benefits urinary tract infections, stomach ulcers, gastritis, and colitis. Externally, it’s used to treat skin irritations, acne, rashes, boils, and burns and as a douche or eyewash.

Simmer 1 teaspoon of marshmallow root for each cup of water for 30 minutes, and drink several cups of the tea throughout the day. A teaspoon of tincture in a little water, or 2 to 3 capsules of the dried and ground herb, is also effective.

Milk Thistle (*Silybum marianum*)

The seed shell of milk thistle seeds contains bioflavonoid-like chemicals that are remarkably effective at protecting your liver and helping it rebuild damaged cells. Modern science has verified that this traditional liver tonic, used to treat chronic liver problems, contains liver-protective compounds (called *silymarin*) and stimulates the growth of new liver cells. Health practitioners use milk thistle to treat hepatitis, cirrhosis, and jaundice and, in cases of mushroom poisoning,
to protect the liver from damage.

We recommend taking milk thistle if you smoke, drink alcohol, or take pharmaceutical drugs or painkillers. It’s also good to use after exposure to radiation, heavy metals, or toxic chemicals.

Take 2 capsules or tablets of a standard extract in the morning and 1 in the evening with dinner.

**Mullein (Verbascum thapsus)**

Mullein is a large, leafy herb that grows for two years and then dies. The furry leaves are an herbal favorite for easing many kinds of lung ailments and strengthening the respiratory tract.

Mullein leaves have a long history of use as a treatment for colds, coughs, bronchitis, and asthma. Other uses are for gastrointestinal problems and urinary tract inflammation. The flowers have soothing and antibacterial principles; herbalists traditionally infuse them in oil to make drops for treating earaches.

Add 1 cup of dried mullein leaves to 3 cups of water, simmer for ten minutes, steep for another ten minutes, strain well, and drink 1 cup two or three times daily.

**Nettle (Urtica dioica)**

The common stinging nettles that you may remember running into as a child (how can you forget?) are a popular mineral tonic, rich in vitamins and minerals, as well as a health food and modern herbal medicine with many uses. Nettle leaf tea helps to heal inflamed mucous membranes caused by colds and coughs and treat respiratory allergy
symptoms. Tea from the leaves is also effective as a diuretic that helps in the treatment of kidney and bladder infections and as a skin wash for sores, infections, and eczema. European herbalists use the rhizome to alleviate inflammation and swelling of the prostate gland.

Very high in vitamins, minerals, and protein, fresh, tender nettle leaves are popular as a spring tonic. To prepare nettles, simply steam them as you would spinach and sprinkle them with a little olive oil and vinegar.

**Parsley (Petroselinum crispum)**

This popular culinary herb contains high amounts of iron and vitamin C and is used in salads or as a tea to alleviate water retention, flatulence, and suppressed menstruation. Parsley also stimulates the elimination of uric acid and helps with the symptoms of arthritis and gout.

Follow the label directions regarding dosage. Parsley root tea is an effective diuretic used for water retention. To make tea, use a teaspoon of the root for every cup of water and simmer for five minutes; then steep for ten minutes. Drink 1/2 cup several times daily.

**Peppermint (Mentha arvensis)**

Peppermint is a small, aromatic spreading garden plant that is a perennial favorite throughout the world. People around the world use this aromatic herb to relieve stomachaches, nausea, and flatulence. Herbalists also recommend peppermint tea for headaches, colds, fever, and gas problems. Peppermint oil in capsules is often effective for colitis and irritable bowel syndrome.

Make a cup of soothing peppermint tea by steeping a peppermint
teabag, or 1 teaspoon of dried peppermint leaf, in 1 cup of water for ten minutes. Follow the label instructions for capsules or other products.

Growing peppermint in your garden or a windowsill planter box is easy, and you can usually find small starts at your local nursery. Do not give peppermint too much space, though, or it will take over your garden.

Plantain (Plantago major, P. lanceolata)

Plantain herb is a small, leafy plant, native to Europe, which now follows humans wherever they go. You probably have some growing in your backyard, a nearby lot, or the local public park.

When you pick wild plants, make sure that they haven’t been sprayed with herbicides, and do not pick them closer than 100 feet from busy roads. If you pick plantain in a park, pay special attention to any dogs that have roamed the area; otherwise, you can get extra nitrogen you didn’t count on.

Plantain is a virtual herbal medicine cabinet that you can use for gastrointestinal-tract problems and a wide range of ailments, from toothaches and sore gums to hemorrhoids and diarrhea. You can also use plantain for cystitis and other urinary tract disorders as well as for coughs and other respiratory symptoms. Externally, you can apply the chewed, fresh leaves or a tea made from the dried leaves to cuts, wounds, rashes, and insect bites.

Apply creams, salves, or the chewed fresh leaves to the affected area of skin liberally, several times daily. Or make a tea by simmering 1 teaspoon of the dried leaf or 2 teaspoons of the fresh leaf in each cup of water. Drink several cups of the tea throughout the day, between meals.
Psyllium (*Plantago ovata*)

Psyllium is a tropical plant from the plantain family. The seeds contain a valuable gummy substance, known as mucilage, that has excellent soothing and mildly laxative qualities. Psyllium seeds from several species absorb water and form a gelatinous layer, helping to retain water in the intestines, which prevents constipation. Combined with the husks, they make an excellent soothing and bulking laxative for treating chronic constipation. This herb is also useful for relieving diarrhea, irritable bowel syndrome, hemorrhoids, and high cholesterol.

**Safety Tip**

Be sure to drink a few extra glasses of water daily when taking psyllium, so that it doesn’t gum up in your intestines and cause a constipating rather than a laxative effect.

**Double Check**

If you’re taking capsules or tablets, follow the instructions on the product. To make a drink with psyllium seeds and husks, add 1 tablespoon to an 8-ounce glass of water, wait ten minutes, and then drink.

Red Clover (*Trifolium pratense*)

Originally from Europe, red clover is a common plant and weed that grows throughout the world. Herbalists harvest the bright red flower heads and then dry them and make them into remedies that stimulate the liver and immune system to rid the body of waste products. Red clover flowers contain isoflavones that inhibit the activation of certain carcinogens, perhaps explaining their use in herbal cancer formulas. The plant also contains phytoestrogens, one of which is genistein. Genistein is the best-studied phytoestrogen from the pea family, and is the exclusive ingredient of a product currently highly touted to relieve menopausal symptoms such as hot flashes, lower bone loss, and protect the cardiovascular system.
Phytoestrogens are plant chemicals found abundantly in the pea family (soybeans and other beans contain them) and in flax seeds. Although not true human estrogens, these compounds act as weak estrogens in the body. Modern science has proven that these beneficial compounds can regulate estrogen in the body, providing important health benefits, such as balancing hormones and easing symptoms of PMS and menopause.

Traditional uses of red clover include treating respiratory and skin conditions, constipation, and low appetite and stimulating liver and gallbladder activity. Red clover is useful both internally and externally for various skin problems, including eczema and psoriasis.

Make a cup of tea with 1 tablespoon of red clover flowers for each cup of water. Simmer for 20 minutes, steep for 10 minutes, and drink 1 cup several times a day, between meals. Follow the package instructions for tinctures and phytoestrogen products.

Reishi (Ganoderma lucidum)

Reishi is a fungus that produces a beautiful red or black, shiny fruiting body — a mushroom revered by the ancient Chinese as a panacea. Modern science has demonstrated its ability to strengthen the immune system and calm the nervous system, as well as its benefits in regulating blood sugar, reducing cardiovascular disease, and relieving allergies and insomnia.

Health practitioners often prescribe this health-promoting herb for general weakness, fatigue, and other deficiency conditions (such as chronic fatigue syndrome, AIDS, and cancer). Reishi is also effective in treating some kinds of insomnia.

Drink 1 cup of the tea or take 3 tablets or capsules two to three times daily.
Saw Palmetto *(Serenoa repens)*

The palmetto palm produces the small orange saw palmetto berries that are in abundance in northern Florida. The herb has become a hot commodity; farmers who, only a few years ago, pulled out thousands of acres of the scrubby palm to graze cows are now replanting.

Extracts of saw palmetto berries relieve many of the troublesome symptoms of benign prostatic enlargement, such as nocturnal urination and urinary retention. Traditional uses also include strengthening the female or male reproductive tract and restoring sexual vitality.

Take 3 or 4 capsules of the ground herb twice daily. For extracts of saw palmetto, follow the label instructions, but in addition take 1 or 2 extra capsules per day. We have found that a higher dose is more effective.

Senna *(Cassia spp.)*

Senna comes from the leaves of a small tree with yellow, pea-like flowers. The leaves are the primary ingredients of the famous commercial laxative Exlax. You may find that this herb really moves you! The stool-softening abilities of this laxative herb make it a good addition to an herbal program for hemorrhoids or anal fissures.

The suggested duration for using senna leaf is not to exceed one or two weeks. Herbalists suggest that you combine this potent laxative with a soothing antispasmodic, such as ginger or peppermint, to prevent cramping.

Follow the product’s package instructions carefully.
Siberian Ginseng
(*Eleutherococcus senticosus*)

A member of the ginseng family, Siberian ginseng works a little differently than true ginseng, which is in the group called *Panax*. The medicinal root comes from a large, spiny shrub native to Russia and China. Eleuthero, or Siberian ginseng, is a restoring, health-enhancing herb that helps you adapt to stress in your environment. It also contains immune-regulating properties.

Truly an herb for the new millennium, you can use Siberian ginseng to relieve jetlag, fatigue, immune deficiency, stress, and stress-related disorders. Practitioners additionally prescribe the herb for adrenal weakness, convalescence, and altitude sickness. Siberian ginseng also seems to be effective as a performance-booster for all kinds of sports, including weight training and running.

Follow the label instructions on the product regarding dosage. The usual dose for a tincture is 1/2 to 1 teaspoon in a little water, twice daily.

Slippery Elm (*Ulmus fulva*)

Native to the eastern United States, slippery elm got its name because of the abundant slimy mucilage throughout its inner bark. The bark is taken off in thin strips, dried, and then powdered. The powdered bark is an ingredient in soothing throat lozenges and teas.

Slippery elm has soothing and astringent properties that help heal inflamed mucous membranes in gastritis, ulcers, diarrhea, hemorrhoids, and anal fissures. It’s also useful as a vaginal douche, as an application to the skin for scrapes, burns, itching, and wounds, and as a lozenge for
coughs.

Simmer 1 teaspoon of slippery bark in 1 cup of hot water for a few minutes; then let the brew steep for another ten minutes. Drink 1 cup of tea several times daily.

**St. John’s Wort (Hypericum perforatum)**

Originally from the Mediterranean, the bright yellow flowers of St. John’s Wort were included in physicians’ pharmacies before the time of Christ to regulate the mood and heal wounds and burns. Today, the herb has gained new international popularity because of clinical studies showing that an extract has just as potent an antidepressive effect as a commonly prescribed pharmaceutical drug (Prozac) — with fewer side effects.

Currently very popular as an antidepressant, this ancient herb also has sedative, anti-anxiety, and pain-relieving properties.

Consult your health care practitioner before using St. John’s wort with antidepressants such as Prozac and Paxil. A bright red liniment or oil made from the flowers helps to ease the symptoms of painful bruises, burns, sprains, and other injuries. The main active ingredients, hypericin and hyperforin, possess excellent anti-inflammatory properties and penetrate well through the skin when applied externally.

Take 2 capsules of a standardized extract (containing 0.3 percent hypericins) in the morning and 1 in the evening. Or take 1/2 to 3/4 teaspoon of the tincture in a little water, morning and evening, between meals. For external use, apply the oil to the affected area several times daily.
Turmeric (\textit{Curcuma longa})

The bright yellow-orange rhizomes of turmeric — really underground stems — make a spicy addition to Indian and Chinese cuisine. Extracts from the rhizomes are a popular modern herbal remedy in Europe, North America, and other countries.

Curcumin, extracted from turmeric, inhibits initiation and growth of several cancers. It is the yellow pigment found in turmeric and curry, so break out the Indian cookbooks and get your dose of curcumin.

Turmeric rhizome contains anti-inflammatory, antioxidant, lipid- and cholesterol-lowering, liver-protective, and wound repair and healing properties. Practitioners recommend turmeric extracts for arthritis, digestive weakness, and other ailments.

Take 1 to 4 droppersful of the tincture three to four times daily. Follow the label instructions on other products.

Valerian (\textit{Valeriana} spp.)

The roots and rhizomes of this European plant are famous for smelling bad. But the extracts and teas are renowned for their ability to help ease nervous tension and promote refreshing sleep. Alternative health practitioners have long valued valerian as a sedative in the treatment of insomnia, anxiety, stress, and hypochondria and as an analgesic for headaches, backaches, and intestinal and menstrual cramps.

\textit{Note:} Valerian is considered a tonic sedative because it also has some stimulant properties.

Try adding 1 teaspoon of the tincture, preferably made from undried roots and rhizomes, to a cup of chamomile or kava tea.
Follow the instructions on capsule and tablet bottles.

The relaxing chemical compounds from valerian break down quickly, reducing the effectiveness of dried valerian. We recommend using liquid tinctures made from fresh roots and rhizomes, when available.

**Vitex (Vitex agnus-castus)**

Vitex is also known as chaste-tree because it has an ancient reputation for reducing sexual desire in cloistered monks. Herb companies and herbalists make an extract from the small, reddish-brown seeds. The seeds of vitex also have a long history of use for increasing lactation in nursing mothers. Vitex berries have progesterone-regulating properties, making the herb useful for moderating estrogen effects and treating PMS, dysmenorrhea, irregular bleeding, acne, and perimenopausal hot flashes.

Add 1/2 teaspoon of the liquid tincture to a little water or tea and drink it before breakfast. For PMS, take the herb regularly throughout your cycle. You can stop for a few days around the time of ovulation.

For symptoms like hot flashes that sometimes occur during menopause, try a program of vitex, black cohosh, and phytoestrogens instead of synthetic estrogen. This program is much safer, and you may be surprised at the herbs’ combined effectiveness.

**White Willow Bark (Salix spp.)**

Willows waving in the wind are a familiar sight to many people. The bark of the willow tree contains a natural aspirin-like compound called
salicin. Uses for willow bark include treating aches, pains, headaches, fevers, arthritis, and inflammation. Willow bark extracts and teas were used to lower fevers and reduce pain long before aspirin came into use in the mid-1800s.

You can extract the bark with alcohol or in hot water to make a tea. Soak 1 teaspoon of the dried bark in 1 cup of water overnight, then drink 1/2 cup in the morning and 1/2 cup in the evening away from meals. (For stubborn aches and pains, you can double the dose.) Modern extracts, which undergo testing for levels of active salicin, are available in capsules and tablets. Follow the directions on the bottle regarding dosage.

Wild Cherry (*Prunus serotina*)

The majestic wild cherry tree is a familiar sight in the forests of the eastern United States. The bark contains sedative compounds, and Native Americans and herbalists have made cough syrups and other preparations with it for centuries. Today, wild cherry bark is popular in cough remedies because of its sedative and antispasmodic properties. It’s useful for treating chronic and acute irritating coughs, particularly dry and unproductive ones.

Take 1 teaspoon of a commercial cough syrup that contains wild cherry bark throughout the day as needed. (Many health food stores carry such products, and you can check the ingredients on the label.) Or drink 1 cup of the tea or take 1 dropperful of the tincture two to three times daily.

Yerba Santa (*Eriodictyon californica*)
The leaves of this shrub of the southwestern U.S. are so resinous that they appear lacquered. Native Americans used this plant for healing, and early physicians considered it so effective that it became a part of the official drug book, the *U.S. Pharmacopeia*.

This resinous herb is an effective stimulating expectorant that’s valuable in treating respiratory afflictions such as bronchitis, moist coughs, chest colds, and asthma. Though primarily considered a respiratory herb, yerba santa is also useful in treating intestinal tract problems, urinary tract afflictions, and bites, bruises, and sprains.

Add 1/2 to 1 teaspoon to a little water or a cup of mullein leaf tea or licorice tea. Drink 1/2 cup several times throughout the day, between meals.

If you’ve been plagued by a lingering cough after a cold or other respiratory tract infection, try adding a few droppersful of the liquid tincture of yerba santa to a little water and drink several times a day for a week or two. This treatment can help your body in its efforts to remove sticky, stubborn mucus.
Part III
Supplements for Everyone

The 5th Wave
By Rich Tennant

"Honey—do we have any vitamin B5?! My adrenal gland’s starting to growl."
In this part . . .

This part’s for you! In “Supplements for Everyone,” we give clear and specific plans for nutritional supplements, their suggested doses, and food recommendations for special people, whether you are a man, woman, athlete, kid, teen, or vegetarian. We guide you to the appropriate supplements to take if you are pregnant, overweight, focusing on keeping your immune system strong, or want to increase your sexual energy.

This part also contains exciting new tips about how to stay healthy and vital into old age. We help you figure out which vitamins and herbs can help you stay as young as you feel you should be.
Chapter 11
Get with the Program — Supplements for Your Needs

In This Chapter

- Supplement needs for women and men
- Using nutritional supplements to boost athletic performance
- Maintaining immunity and preventing illness
- Understanding common deficiencies in children
- Staying healthy during pregnancy
- Increasing your energy and feeling more positive

To make natural medicine work for you (including the use of dietary supplements for the prevention of illness and for easing symptoms and diseases), the medicine must be based on your unique circumstances. For example, ginseng is a great product that can help increase your hormone and energy levels, but it’s not good for everybody.

This chapter helps you develop an effective supplement program to get you started, especially if you are confused by all the hundreds of products on the store shelves. If you're a woman, this chapter shows you the best herbs and supplements to take if you're pregnant, if you struggle with PMS, or if you feel tired and run down. Men also have special needs — like keeping their prostate glands healthy, as well as maintaining sexual vigor. In addition, some herbs and supplements are especially suitable for children, and some are not, so we show you what to look for. Because 50 percent of Americans say they feel like they are overweight, we show you which supplements and herbs can play an
important role in a program for dropping excess pounds and keeping them off. Researchers, nutritionists, practitioners, and manufacturers have also teamed up to create many new and exciting supplements for sports enthusiasts, runners, weight lifters, adolescents, and the elderly, so read on to begin planning your own supplement program.

As you examine the following programs, it’s important that you keep the following tips in mind:

✔️ If you’re considering beginning a supplement program, it’s always good to consult with your practitioner (doctor, herbalist, and so on), to make sure the program fits your needs and is safe.

✔️ Always try to get the additional nutrients you need from a balanced diet before you supplement.

✔️ Read product labels carefully to ensure that you’re taking the correct product and dosage.

✔️ See the chapters in this book that deal with each specific nutrient to find out more about it and figure out the appropriate dosage.

### A General Supplement Program

Before you jump to a specific supplement program, we recommend that you be sure you’re getting all the basic nutrients in Table 11-1, either through foods or with a multivitamin supplement.

<table>
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<tr>
<th>Vitamin</th>
<th>Suggested Daily Dosage</th>
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<tbody>
<tr>
<td>Vitamin A</td>
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</tr>
<tr>
<td>Vitamin B-1 (thiamin)</td>
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</tr>
<tr>
<td>Vitamin B-2 (riboflavin)</td>
<td>25 to 50 mg</td>
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<td>Vitamin</td>
<td>Amount</td>
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<tr>
<td>B-3 (niacin)</td>
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<tr>
<td>B-5 (pantothenic acid)</td>
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<td>B-6 (pyridoxine)</td>
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<td>B-12</td>
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<td>Vitamin D</td>
<td>400 IU</td>
</tr>
<tr>
<td>Vitamin E, mixed tocopherols</td>
<td>400 IU</td>
</tr>
<tr>
<td>Folic acid</td>
<td>800 mcg</td>
</tr>
<tr>
<td>Hesperidin</td>
<td>30 mg</td>
</tr>
<tr>
<td>Inositol</td>
<td>50 mg</td>
</tr>
<tr>
<td>Iodine</td>
<td>100 mcg</td>
</tr>
<tr>
<td>Iron</td>
<td>18 mg</td>
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<tr>
<td>Magnesium</td>
<td>500 mg</td>
</tr>
<tr>
<td>Manganese</td>
<td>5 mg</td>
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<tr>
<td>Molybdenum</td>
<td>50 mcg</td>
</tr>
<tr>
<td>PABA</td>
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<tr>
<td>Potassium</td>
<td>99 mg</td>
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<tr>
<td>Rutin</td>
<td>20 mg</td>
</tr>
<tr>
<td>Selenium</td>
<td>200 mcg</td>
</tr>
<tr>
<td>Zinc</td>
<td>30 mg</td>
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</tbody>
</table>

**A Program for Women**

Women have special needs for nutrients based on hormonal cycles, menstruation (which causes a greater need for blood replacement), and pregnancy. If you’re female, you require higher amounts of iron, folic
acid, calcium, and other B-vitamins, such as vitamin B-6, than men. You usually need less protein and calories than men do to maintain normal weight (based mostly on a smaller proportion of muscle mass). Your needs can increase with your activity level and during pregnancy.

Common natural occurrences in women, including menstruation, pregnancy, and menopause, are too often considered medical maladies that need to be treated by physicians rather than as occurrences to which women naturally adapt. For instance, many women are considered iron-deficient based on modern medical understanding, but this may be a benefit. New research shows that low iron levels (if they are not excessively low) can protect your cardiovascular system and help prevent infections. Practitioners often prescribe birth control pills, hormone replacements, and other medicines to alter and reduce the pain of menstruation rather than helping women reestablish balance using nutrient and herbal therapies that can commonly help alleviate all types of female problems.

**Dietary guidelines for women**

General dietary principles for women apply to almost anyone. You should eat primarily nutrient-rich fresh fruits and vegetables, whole grains and legumes, some nuts and seeds, some dairy products if you’re not allergic to them (yogurt and low-fat cheeses are best), and lean animal proteins. (Unless, of course, you’re a vegetarian.) Consuming an adequate amount of *phytoestrogens*, or plant-based estrogens, in the form of tofu, soy milk, and various kinds of beans is particularly important for women. Phytoestrogens support a woman’s own estrogen levels while protecting the tissues from over-stimulation caused by estrogen-like toxins in the environment. These toxins lead to more stimulation than is healthy for your tissues, and if cellular growth is increased at an abnormal rate, so are your risks of developing uterine or breast cancer. Of course, for optimum health, avoid overeating in
general, and avoid processed goods and fatty foods in particular, as well as the daily use of alcohol, caffeine, nicotine, and refined sugar.

**Supplements for women**

A good supplement for women supplies the essential nutrients the female body requires and helps keep you sane and grounded through all the crazy female hormone cycles. You need to make sure you’re getting an adequate supply of iron from your diet or an iron supplement because of the monthly blood loss of menstruation. (See your doctor for a blood test to verify your iron needs.) For this reason, many nutritionists recommend a bone-building supplement. Some women’s supplements include herbs to keep your blood and reproductive organs healthy.

If you’re a woman, you may tend to crave sugar and chocolate before and during your menstrual cycles. Eating extra carbohydrates during this time can help keep your hormone levels and brain chemistry balanced. If you find you can’t get chocolate off your mind, or you find yourself taking a whole handful of those chocolate mints by the checkout counter of your favorite restaurant, then supplement your diet with a complete B-complex vitamin, vitamin C, chromium, and L-glutamine.

As the foundation of a woman’s program, we recommend the following:

- A good multivitamin and mineral system containing most of the nutrients you need daily (See Table 11-1 earlier in the chapter.)

- Superfoods like spirulina (See Chapter 9 for more on superfoods.)

- Alfalfa extract (a source of phytoestrogens)

- Herbal tonic extracts like dong quai, which strengthen the
female organs

塌

- Hormone regulators like vitex
- Antioxidants, such as vitamins E and C

Herbs for women

The special needs and health concerns of women can often be treated well with herbs. Many wise women have been studying and using herbs for health and healing for thousands of years. Check out some of these special women’s herbs below.

塌

- **Vitex** (*Vitex agnus-castus*): This herb is useful during many phases of a woman’s life. Some teenagers have found it beneficial for treating acne. It’s also an excellent herb for balancing hormones and keeping girls and women from having difficult mood swings, painful premenstrual breast tenderness, and irregular menstrual cycles. Vitex is useful for nursing mothers who want to increase their supply of breast milk. Some women use it to help control their hormone levels when they are coming off of birth control pills, and later in life, it is useful for unpleasant symptoms associated with menopause.

塌

- **Dong Quai** (*Angelica sinensis*): Women worldwide use this herb for strengthening the blood and female organs. It is recommended for conditions such as mild anemia, premenstrual syndrome, uterine fibroids, and menopause. During menopause, dong quai can help relieve symptoms such as fatigue, hot flashes, and vaginal dryness. You generally find this herb combined with other female tonifying herbs in formulas.

塌

- **Motherwort** (*Leonurus cardiaca*): You can use this herb to ease menstrual pain and irregularities and to calm your nervous system. It increases blood flow and is effective for painful, delayed, or suppressed menstruation and PMS.
A Program for a Healthy Pregnancy

During pregnancy a woman is nourishing a new person with her own body. Eating highly nourishing foods and taking strengthening herbs during this time are of extreme importance. To meet the increased demands on the body, pregnant women should choose a multivitamin specifically for their needs during pregnancy and another formula for their needs after the baby is born. You can purchase such vitamins from natural food stores, or see your doctor, nutritionist, or midwife for more information.

Dietary guidelines for pregnancy

If you’re pregnant, your diet should consist of a good variety of nutrient-rich foods. Your body usually requires about 300 to 500 more calories daily (about 75,000 extra calories over the entire pregnancy!), in order to nourish all the extra tissues and blood that supply the baby with energy and nutrients. In particular, women need nearly twice as much protein for a healthy pregnancy. This need for more protein normally requires that you increase your daily consumption of eggs and milk products as well as animal proteins in the form of meat, fish, and fowl. For strict vegetarians, getting enough protein is more difficult and requires much more care. Make sure you regularly consume enough grains, beans, nuts, seeds, and perhaps even a vegetarian-based protein powder (soy or rice) to use in power-packed shakes. See Chapter 2 for more information about getting protein and vegetarianism.

Supplements for pregnancy

Besides protein, special supplement needs during pregnancy include
primarily the following:

- **Iron** to help build blood cells in the mother and baby and to prevent anemia
- **Zinc** to maintain a healthy fetus
- **Calcium** to protect teeth and bones
- **Folic acid** to benefit embryo formation and prevent premature birth and neural tube defects

You also need a full range of vitamins and minerals. Obtaining the good fatty acids from foods and supplements like flaxseed oil is also helpful to keep your tissues healthy and pliable, which helps when you deliver the baby. (See Chapter 8 for more on fats and oils.)

A variety of prenatal supplements are geared toward the special needs of pregnant women and usually include the extra nutrients you need. Some may also contain herbs such as raspberry leaf, which helps keep your uterine muscle toned (another important factor in delivery).

Pregnant women should avoid regular use of nicotine, caffeine, and alcohol. Any drug use can adversely affect the well-being of the fetus. Consult with your obstetrician or midwife for advice on your nutritional supplement program and before taking any medication.

### Herbs for pregnancy

The following herbs are helpful for certain symptoms associated with pregnancy.

- **Raspberry** (*Rubus idaeus*): Quite safe to use during pregnancy, herbalists recommend this herb to strengthen your uterus and facilitate labor. Red raspberry leaf tea used daily provides extra calcium needed by both the mother and fetus. Many herbalists include raspberry leaf in formulas for miscarriage
Ginger (*Zingiber officinalis*): To ease morning sickness you can sip ginger tea as needed throughout the day or take two capsules three times daily. (Check out Figure 11-1 to see what ginger looks like.)

Black haw (*Viburnum prunifolium*): This herb has an excellent reputation for miscarriage prevention. It helps your uterus relax, eases premature contractions, and stops bleeding or spotting.

Yellow dock (*Rumex crispus*): If constipation is a problem for you, try taking an extract of this time-tested herb to regulate your bowels. The roots contain the same active ingredients as laxatives (such as cascara and senna), but in far lower amounts that make it safe for use during pregnancy. Yellow dock root also helps enhance iron absorption, and midwives often recommend it to help your body to create enough healthy red blood cells during pregnancy.
A Program for Men

Men who live and work in our high-tech, high-stress society, eat what is commonly available in stores and restaurants — the lower end of the food chain, and don’t get much exercise are at a high risk for heart attacks and strokes, as well as diabetes, arthritis, and cancer. Because prostate cancer is increasingly common, if you’re a man over 55 years of age, we recommend getting regular prostate checkups at least every other year. Obesity is also epidemic and is directly related to eating more calories than your body needs without participating in much physical activity.

If you’re a man, we invite you to be more proactive and practice preventive health care by learning more about your body and its needs. Live life like your body is the only one you get — at least this time around. This means learning how to handle stress, getting the proper amount of sleep, maintaining a regular exercise program, and eating a balanced, low-fat, high-fiber diet. This regime includes keeping your weight, cholesterol level, blood sugar level, and blood pressure in the normal range. We find from our practices that you’re prone to suffer through your symptoms (“take it like a man”) without seeking help, advice, and the support you need before a serious ailment sets in. Fortunately, this attitude common among men is slowly changing, and many more men are taking the opportunity to pay attention to their symptoms to achieve better health and longer lives.

Dietary guidelines for men

If you experience common symptoms like headaches, stress, unclear thinking, mood swings, or digestive problems, we recommend avoiding the regular use and abuse of alcohol, nicotine, caffeine, and refined, processed sugars and baked goods, fried and fatty foods, caloric
desserts, fast foods, and high-calorie, high-sugar sodas. Remember, even though developing good habits early is easiest, it’s never too late to change. You’ll be able to see and measure how much better you feel and look when you begin to follow these guidelines. Drug treatments only patch things up at best, but the results you feel when you practice healthy habits daily are astounding and lasting!

Supplement guidelines for men

Special supplements that you need include zinc, vitamins C and E, magnesium, and selenium, all of which work together to protect various body tissues and blood vessels and support prostate health. The B vitamins, especially B-6, B-12, and folic acid, help protect you from cardiovascular disease by properly metabolizing the substance homocysteine. Magnesium also reduces heart attack risk, reduces muscle spasms, and protects against calcification from atherosclerosis caused by excess saturated fats. In addition to watching out for too much calcium, you should limit your iron intake unless you’re iron-deficient (which usually only happens if you suffer from chronic bleeding), because iron can irritate your blood vessel linings, damage cholesterol molecules, and stress your liver.

Herbs for men

✔ Saw palmetto (Serenoa repens): This herb has become well known in recent years because of its effectiveness in reducing the symptoms of prostate inflammation and enlargement (the tongue-twister official name is benign prostatic hypertrophy or BPH). It strengthens the urinary and genital organs, helping to relieve burning or incomplete urination and reduced urinary flow.

✔ Nettle root (Urtica dioica): The leaves of this high-mineral herb are used for the treatment of urinary problems, and now extracts of the root are showing promising results in the treatment and prevention of BPH.
Hawthorn (*Crataegus laevigata*): This heart-friendly herb steadies the heartbeat, increases blood flow to the heart muscle, and strengthens the heart. It’s recommended for heart irregularity and palpitations, *hypertension* (high blood pressure), *atherosclerosis* (plaque build-up in the arteries), and *angina* (chest pain).

See your doctor before you take hawthorn if you’re also taking the drug digoxin.

Ginseng (*Panax ginseng*): Red Korean or Red Chinese ginseng is the top men’s herb for sexual potency and energy for men who are 45 or older. Ginseng is beneficial for reducing fatigue and lethargy, recovering from illness, and strengthening a weakened immune system.

Don’t use this herb if you have high blood pressure.

A Program for Weight Control

If you are the *heavyweight champion* in your household, as are many millions of people in economically developed countries around the world, you probably have thought about ways to lose weight. Figuring out how to maintain a healthy weight is one of the greatest challenges of modern-day living, with the abundance of food choices, the large variety of fatty and caloric foods in supermarkets and restaurants, and the great deal of advertising for all the nutrient-poor, but calorie-rich foods that make you fat. (In addition, of course, to not meeting the daily requirements for exercise.)

After you put on those extra pounds, taking them off is hard, and keeping them off is even more difficult. Statistics show that over 90 percent of people who lose weight put it back on, and often add a few pounds more.

Did you know that your risk for many diseases goes up when you are
overweight? (And we’re not talking about just heart attacks and strokes.) Overweight individuals have a higher incidence of degenerative diseases than people who maintain a healthy weight. These diseases include many types of cancer, arthritis, and particularly diabetes. Knowing this makes staying trim a wise choice. In addition to genetic makeup and a positive attitude, your dietary choices may be the major factor that helps you prevent disease and stay young and trim.

**Dietary guidelines for weight control**

To maintain a slender figure, your diet needs to consist of foods with a high nutrient-to-calorie ratio. Focus on eating foods that have ample nutrition and not a lot of calories, such as fresh fruits and vegetables, whole grains, and legumes. Sound boring? Today, you can find tantalizing and tasty recipes to make tofu taste better than a steak.

**Supplement guidelines for achieving your ideal weight**

Supplements for balanced metabolic functions and maintaining a healthy weight include the following nutrients.

- **A multivitamin and mineral supplement**: We recommend a complete nutritional system that includes all your required vitamins and minerals with superfoods and herbs.
- **CoQ-10**: Facilitates energy and fatty acid metabolism in the cell *mitochondria* (the part of the cell that makes energy).
- **Carnitine**: Supports metabolism and utilization of fatty acids, which prevents fatty buildup and aids in weight loss.
- **Chromium**: Aids sugar metabolism, which reduces cravings for carbohydrates, sweets, and alcohol.
Glutamine: May help reduce sugar, carbohydrate, and alcohol cravings.

See Chapters 4 and 5 for more information on these substances.

Herbs for weight control

Garcinia (Garcinia cambogia): Although this herb has been shown to lower body weight and reduce fat mass in animals, clinical trials with humans have not shown particularly positive results. More research is needed to verify its effectiveness. The hydroxycitric acid (HCA) found in garcinia is the active ingredient.

Psyllium (Plantago ovata): Psyllium seeds, an ingredient in the well-known product Metamucil, are beneficial in weight loss programs. The seed powder bulks up in your system, giving you a feeling of fullness, while helping to cleanse your bowels and keep you regular. Many practitioners recommend mixing a teaspoon of this bulk laxative with water and drinking the mixture 30 minutes before eating. If you’re taking psyllium, be sure to drink a few extra glasses of water during the day.

Chickweed (Stellaria media): This herb is reputed to help melt off excess pounds in people who are overweight. Although not much evidence exists to back up this claim, chickweed is considered to have a mild metabolic stimulating activity. Eating it fresh in salads is the best way to use this herb, because it loses most of its activity when dried.

A Program to Support Your Immune System

Your immune system is a thing of beauty. Think of it working in concert with your hormonal and nervous systems to protect you against viruses, bacteria, and countless other pathogenic, or disease-causing,
invaders. Many factors stress your immune system, including infections, allergies, injury or surgery, poor sleep, and work or relationship stress. Financial burdens, travel, overeating or malnutrition, and excess sugar or chemicals in your diet and environment don’t help, either. Add nutritional deficiencies and emotional extremes, such as anger or depression, to those other factors, and you may need an immune system transplant. (And no, surgeons haven’t pioneered those just yet.)

**Dietary guidelines for immune system support**

An immune-friendly diet consists of a variety of healthy foods — fruits, vegetables, grains, legumes, nuts, seeds, and foods with proteins. Regular use of SNACCs (sugar, nicotine, alcohol, caffeine, and chemicals) often defeats the efforts of your immune system to protect you. It’s ironic — often the foods that you crave the most are the foods that your immune system can’t tolerate. Common food allergens that irritate your immune system are distracting — keeping it off track. The most common food allergens are cow’s milk, eggs, wheat, soy, sugar, tomatoes, corn, and yeast. Some common food reactions include headache, nasal congestion, an upset digestive system, fatigue, fast pulse, frequent or dramatic mood changes, water retention, and difficulty losing weight. You may want to check your sensitivity to these foods by eliminating one at a time from your diet for about two weeks. See how your feel. Try rotating potential allergenic foods in and out of your diet so that your immune system doesn’t have time to become fully reactive to them.

**Supplement guidelines for immune system support**
Try the following supplements for your immune system-boosting regime:

- **Glandulars** (supplement extracts from animal glands): thymus and liver
- **Vitamins**: A, C, E, B-complex
- **Minerals**: zinc, selenium, copper, and iron (but avoid excess iron)

**Herbs for immune system support**

- **Reishi** (*Ganoderma lucidum*): This much-revered herb, shown in Figure 11-2, aids your immune system, strengthens your blood, and calms your nervous system. In China, medical practitioners commonly prescribe reishi for daily use to increase your resistance to infections and prevent cancer and heart disease.

![Figure 11-2: Reishi is a beautiful red and black mushroom that calms your nervous system.](image)

- **Shiitake** (*Lentinula edodes*): Extracts of this potent mushroom have been shown to activate the immune response in clinical trials, and practitioners prescribe them for a multitude of diseases that result from a weak immune system. Shiitake extracts are approved drugs for the treatment of cancer, HIV, and hepatitis in Japan.

- **Astragalus** (*Astragalus membranaceus*): Astragalus, one of the most highly respected immune-boosting herbs, is the sliced and
dried root of a small, Chinese, perennial plant from the pea family. Numerous clinical trials and thousands of years of popular use show that it can significantly enhance the human immune function. Astragalus is added to many immune-boosting formulas for AIDS, cancer, and chronic fatigue, and is used to improve your overall immune function.

Get loaded

Carbohydrate loading (the consumption of large amounts of carbohydrate-filled foods) first became popular during athletic events in the 1970s. Marathon runners coined the term hitting the wall for the way they felt when they had depleted their glycogen (carbohydrate) stores and began running primarily on stored body fat. Today, long-distance athletes know much more about performance enhancement. They achieve better race times and avoid hitting the wall simply by practicing carbohydrate loading and ingesting carbohydrate drinks immediately before and during the race.

A Program for Athletes and Physical Fitness

Working out doesn’t have to result in your being tired out. Many Olympic champions, professional athletes, and even part-time weekend warriors can access hidden reserves of power with the help of well-chosen herbs and other supplements.

Working out and being physically active causes you to expend certain energies and reserves that require replacement. When you sweat, you need additional fluids and electrolytes (minerals involved in cell activity and electricity within the cell and at the membranes) including sodium chloride and potassium, as well as magnesium. Sports drinks can often provide these necessary nutrients, so you may not need to
supplement. Protein needs may also increase with any weight-training programs.

**Dietary guidelines for athletes**

The best diet for you if you’re an athlete depends on your level of activity and the type of exercises you do. Because the average athlete consumes at least twice the calories of a non-athlete, eating the correct foods is particularly important. Runners often do better on high complex-carbohydrate diets, while bodybuilders and athletes requiring increased strength may need additional increases in protein. If you require speed and agility combined with strength, a combination of adequate protein levels with high-fiber grains and legumes, plenty of fluid-filled fruit and vegetables, and regular water intake can fuel the flame of your energy. The breakdown of your recommended diet might be 50 to 60 percent carbohydrates (breads, pastas, and whole grains like rice and oatmeal), 15 to 20 percent proteins (meats, seafood, beans, eggs and milk products, nuts, and seeds), and 25 to 30 percent fats (mainly as good fatty acids; see Chapter 6). Also, drink at least 6 to 8 glasses of water as well.

**Supplement guidelines for athletes**

Any active person doing physical workouts needs basic vitamin and mineral supplements and additional antioxidants to handle the extra free radicals generated by the enhanced metabolism. Antioxidants can help lessen soreness and reduce recovery time after you perform an intense workout. For extended workouts and sweating (and for exercise in warmer weather), you need more fluids, salt, and potassium. If your exercise fits into a more specific category, you may need some of the following nutrients.

> For bodybuilding, additional proteins or amino acid formulas
aid in muscle development, especially for teenagers working out and developing their bodies. Remember — amino acids and proteins are the building blocks of our bodies.

✔ **Joggers and other people performing repetitive exercise** need extra vitamin C and nutrients like glucosamine sulfate or silica that support tissues and joints.

✔ **To gain energy and enhance your strength**, try supplements including amino acids, creatine, carnitine, CoQ-10, octacosanol, and dimethyl- or trimethlyglycine. (See Chapters 5 and 9 for more information about these substances with complicated names.) Digestive enzymes such as papain, bromelain, and trypsin can help prevent inflammation after you exercise, and they also improve your assimilation (your body’s inclusion) of nutrients that you eat. The aminos arginine and ornithine are used to facilitate growth hormone secretion.

### Herbs for athletes

✔ **Ginseng** (*Panax ginseng*): This herb mildly stimulates your nervous system and metabolism. When used in conjunction with a healthy diet and a regular weight-training program, it can help your body add muscle mass.

✔ **Siberian ginseng** (*Eleuthero senticosus*): As the most important and widely used sports herb, Siberian ginseng (commonly called eleuthero), increases your endurance and speeds up your post-exercise recovery time. Runners, weight lifters, and athletes of all kinds in Russia, Germany, and increasingly in North America, use this herb to enhance their workouts. It increases your muscle cells’ ability to gain access to more energy for longer periods, which in turn improves your endurance.

✔ **Ginkgo** (*Ginkgo biloba*): Ginkgo has an excellent track record for protecting and opening your blood vessels so that your blood flow to many of your body’s tissues is more efficient. It has the added benefit of being one of the most potent antioxidants.

✔ **Ginger** (*Zingiber officinalis*) and **Cayenne** (*Capsicum*...)
annuum): Both of these herbs activate the circulation of fluids to tissues throughout your body, which reduces your chance of injury, and enhances your body’s ability to incorporate other nutrients. These herbs are included in many sports formulas but can also be taken by themselves in capsules.

✔️ **Horse chestnut** (*Aesculus hippocastanum*): Take this herb to help prevent injuries, by improving the strength and tone of your body’s veins, as well as to treat injuries like strains, sprains, or bruises. Apply a horse chestnut cream as needed to such injuries. Take capsules or tablets according to the label instructions.

✔️ **Arnica oil** (*Arnica montana*): This oil (or cream form) is excellent for accelerating the healing of and reducing the pain and inflammation from sports injuries. You can also take arnica internally in homeopathic form (tablets containing highly diluted herb extracts to activate your body’s healing response) at the same time. Follow the manufacturer’s label instructions.

✔️ **St. John’s wort** (*Hypericum perforatum*): The oil of this herb is one of the most effective treatments for reducing the pain and inflammation from any external trauma of your skin, muscles, tendons, and nerves. Apply the oil liberally and rub it in well to quickly relieve the pain of scrapes and sore muscles, as well as nerve pain.

### A Program to Increase Sexual Energy

As with athletic activity, sexual activity and ejaculation require many nutrients to produce the sexual secretions and ready sperm and eggs for procreation.

For infertility, impotence, unhealthy sperm, or menstrual problems, consult the individual programs listed for these concerns in Part 5 of this book.
Dietary guidelines to increase sexual energy

The diet that promotes healthy sexual function is most like the Healthy American Diet discussed in Chapter 2, which is low in saturated and hydrogenated fats and high in nutrients, to maintain excellent blood flow. Remember that the regular consumption of high-sugar foods, processed foods, excessive alcohol and caffeine, and nicotine can all negatively affect your sexual energy and function over time. A high-fat diet and overeating often lead to obesity, which can also negatively impact your sexual functions. Cardiovascular disease, such as atherosclerosis, can impact your sexual function, especially for men, because adequate blood flow is required for strong erections and sexual endurance. High quality oils with ample essential fatty acids (which are discussed in Chapter 6) help ensure healthy sexual organs. Seafood, especially oysters and clams, is thought to aid in sexual function, probably because of its high levels of zinc, copper, and other minerals and vitamins. Seaweeds are also high in many important nutrients that may have a positive effect on your sexual function.

Supplement guidelines to increase sexual energy

For improving and maintaining healthy sexual function, be sure to include vitamin E, zinc, vitamin C, vitamin A, vitamin B-3 and the other B vitamins, and the essential fatty acids in your daily program. Supporting your adrenal glands (with vitamins C and B-5) and thyroid gland (with iodine, vitamin E, and tyrosine) can also help increase your sexual interest and activity. If you have a low sperm count, the amino acid arginine is often effective.
Herbs to increase sexual energy

Men, if your hard drive has crashed, and all you have left is your floppy, consider trying some of these time-tested herbs to prevent impotence. Many women find these herbs effective in increasing sexual energy, too.

✔️ **Yohimbe** (*Pausinystalia yohimbe)*: This bark from an African tree is the natural remedy that most closely resembles Viagra. Its active alkaloid, yohimbine, helps some men achieve and maintain erections by increasing blood circulation to the penis.

Yohimbe is also a nervous system stimulant, so you should avoid it if you have high blood pressure.

✔️ **Damiana** (*Turnera diffusa)*: This substance has a wide reputation in Mexico as an herbal aphrodisiac even though science doesn’t officially sanction its effectiveness. It’s also commonly used to treat depression and nerve weakness.

✔️ **Ginseng** (*Panax ginseng)*: Ginseng is the most widely used herb in the world to increase and maintain hormone levels, energy, and sexual vigor. Red Korean or Red Chinese ginseng is the most stimulating kind.

Most tonic herbs like ginseng work best when you take them daily for up to three months.

A Program for Healthy Infants and Kids

Feeding infants and children healthfully requires an entire book. The basics begin with breast milk for the first four to six months, then the slow introduction of puréed organic fruits, vegetables, rice, and proteins. Avoid the use of cow’s milk for as long as possible; cow’s milk and the excessive use of wheat, eggs, and soy can set the stage for
childhood allergies. Maintain healthy choices when you choose foods for your kids.

The first rule for feeding kids is, “Set a good example.” The habits that children develop early appear to stick with them for life, and bad habits, as you know, are difficult to change. Keep healthy foods and snacks around the house and encourage children to become involved in shopping, organizing, and preparing food as they become interested. If you can, have a garden they can help with to see how “real” food grows and to taste foods fresh off the vine.

Dietary guidelines for healthy kids

A balanced diet is ideal for all ages, and the Healthy American Diet that we discuss in Chapter 2 is the basis. It helps you rotate a variety of foods into your diet to achieve a balance and to avoid food allergies. Limiting highly processed foods, sugary sodas, desserts, and fried foods, and offering a limited choice of bread and cheese (pizza, and so on) is wise to insist upon from the beginning of your kids’ lives. The key additives kids should avoid, because they affect behavior and learning, include artificial food colors, MSG, BHT, aspartame, ace-K, and excess sugar. Taking time to make healthy lunches for your children when they go off to daycare or school is one of the most important things you can do for your child’s health. For instance, scientists believe that the calcium, magnesium, vitamin D, and other bone-building nutrients you get in the first 20 years of your life make a major difference in determining whether you will develop osteoporosis later in life.

Supplement guidelines for healthy kids
The basics for a kid-friendly supplement program include a general multivitamin and mineral supplement appropriate to their ages — and of course one they will take. Today’s manufacturers have created many tasty chewables and other easy-to-take products. Children are commonly deficient in zinc, iron, vitamins C and A, and some of the B-vitamins, so look for one that includes these.

Herbs for healthy kids

✔ Catnip (*Nepeta cataria*): This herb is a gentle but effective substance for treating colds, flu, fever, and fussiness. It reduces heat in the body and has a calming effect. You can give it to children as a mild tea with a little honey, or make a strong tea and add it to their bath water.

✔ California poppy (*Eschscholzia californica*): California poppy is an excellent herb for hyperactive and restless kids. It’s safe for children and may prolong the sanity of their parents. (That’s you!)

✔ Chamomile (*Matricaria recutita*): This herb is superb for treating colic, teething, fever, and stomachaches in children. You can add 1/4 to 1/2 a portion of chamomile tea to juice or water for a baby bottle or child’s cup.

A Program for Adolescents

Teenagers are often in another world and may not want to hear about what kinds of foods they should eat. Still, if you’re a parent, don’t give up, because if they hear it often enough, it eventually sinks in. Kids often adopt a rebellious attitude in their teenage years and frequently return to a good diet and healthy habits if they were surrounded with good examples and healthy foods early on. Teenagers have particularly high nutritional needs (similar to pregnant women), because of their active growth, and unfortunately they often have poor and limited diets without adequate nutrition as well as a disdain for taking supplements.
If you are (or have) a teenager, problems with skin breakouts, sexual
development, and bad moods and behavior can sometimes be eased
with a good diet and adequate nutrient intake.

**Dietary guidelines for adolescents**

As a teenager, your diet needs to be well-balanced and as varied as
possible. Your calorie requirements are higher than those of adults,
perhaps as high as 3,000 to 4,000 calories per day. However, the foods
you eat need to be nutrient-rich so that they don’t lead to obesity, which
is a risk during these years. Nutrient-rich foods that are good for
teens include nuts, seeds, eggs, seafood, poultry, yogurt, cheese,
and fresh fruits and vegetables. The Healthy American Diet we talk
about in Chapter 2 is appropriate, and you need to be sure to eat at least
three medium meals plus a couple of snacks every day. When you
consume high-calorie, low-nutrient foods, such as sodas, fries, and
candy, your body still craves foods and nutrition. This can lead to over-
consumption of sugar and processed foods, which in turn may cause
obesity. Focusing on grains and beans (burritos are easy to make and
taste good), nuts and seeds, some vegetables, and adequate proteins,
with fish, eggs, and milk products if you’re not allergic to them is very
important.

Eating disorders are also prevalent in this age group, but
supplementation probably isn’t the best way to treat such
disorders. Adolescents with these problems need a program
managed by a doctor that encompasses all their needs, including
counseling.

**Supplement guidelines for adolescents**

Teens have specific needs and require a multivitamin that supports
energy production, healthy skin, and healthy nervous system function. Common deficiencies include zinc (needed for healthy sexual development), calcium and magnesium (for bones), iron (for blood), vitamins C, E, and A, and the B vitamins. Vegetarian teens should review that program for awareness of extra B-12, proteins, and the special mineral needs. See the following program and Chapter 2 for more information on vegetarianism.

**Herbs for adolescents**

As a teenager, you may be more interested in herbal remedies when we tell you that they may help in clearing up acne. When your hormone levels start to peak, sebum (oil) production increases, providing ample food for bacteria. When bacteria replicate in your glands, the result is the swelling, redness, and pus of pimples. You may want to try dietary modifications. A diet with lots of fresh fruits and vegetables, grains, legumes, fish, nuts, seeds, and not very many sugary foods, sodas, candy bars, or fried foods always provides some relief. You may also want to try the following herbs, and always follow the directions on the product.

- Vitex (*Vitex agnus-castus*)
- Red clover (*Trifolium pratense*)
- Burdock root and seed (*Arctium lappa*)
- Oregon grape root (*Mahonia aquifolium*)
- Yellow dock (*Rumex crispus*)
- Dandelion root (*Taraxacum ofsicinale*)

**A Program for Vegetarians**
Vegetarianism is clearly a healthy dietary alternative and can reduce your chances of cardiovascular disease, cancer, and many other maladies. (To see a list of the different types of vegetarians, check out Chapter 2.) By avoiding some or all animal foods, you’re exposed to fewer chemicals and drugs, because when these substances are used in animals, they tend to concentrate in the animals’ bodies. Because vegetarians focus on a diet with restrictions and fewer options, you must be more careful to obtain all your nutrients to prevent deficiency. Young children, the elderly, and lactating or pregnant women have to be even more cautious to prevent common deficiencies. (See Chapter 2 for more tips on diets for people in each of these categories.)

**Dietary guidelines for vegetarians**

If you’re a vegetarian, you should include a variety of foods, especially nutrient-rich grains, vegetables, legumes, nuts, seeds, fruits, seaweed, juices, and soups. Protein and calcium are especially important for vegetarians, and you can get these nutrients from nuts, seeds, beans, green leafy vegetables, and some high-quality dairy products. Try adding a protein powder to a fruit or soy milk-based smoothie with superfoods like spirulina, barley grass, and especially nutritional yeast for the B vitamins. (See Chapter 8 for more information on these superfoods.)

**Supplement guidelines for vegetarians**

Potential deficiencies in vegetarians include protein, iron, zinc, calcium, and B-12, the last of which is primarily in animal foods. Other B-vitamins and many of the trace minerals are usually plentiful in the vegetarian diet. Suggested supplements include a good vegetarian multivitamin that includes iron for women as well as for any men who
are low in iron or anemic. You can benefit from a little extra zinc and additional calcium if you avoid milk products in your diet. Make sure that your multivitamin and mineral supplement contains vitamin B-12. Protein supplements or amino acids can also help protect against deficiency and aid in your body’s development and strength.

Although vegetarians often need a little extra vitamin B-12 in their supplement, your body can store enough of this crucial vitamin for up to a year or more. Still, it is possible to become deficient, and small amounts in a daily supplement can add extra insurance.

**Herb guidelines for vegetarians**

- **Yellow dock** (*Rumex crispus*): This herb acts as a blood tonic, raising your iron levels and helping to prevent iron deficiency.

- **Nettle herb** (*Urtica dioica*): Rich in chlorophyll, nutrients, vitamins, and minerals, this herb tea or extract helps build your blood and can help protect against anemia.

- **Dong quai** (*Angelica sinensis*): Dong quai is an excellent blood builder and regulator and contains small amounts of vitamin B-12.

- **American ginseng** (*Panax quinquefolius*): Use this herb in tea, tincture, or pill form as a daily supplement to help regulate a healthy hormone balance and boost your energy levels.

**A Program for Junk-Food Junkies**

The “Big Mac attack” is aptly named, because burgers from fast food chains as a regular part of your diet can increase your risk for the big heart attack. Although many fast food fanatics seem to believe they are consuming high-protein, low-fat diets, fast foods actually contain your
daily maximum requirement of trans-fatty acids, saturated fats, salt, preservatives, artificial colors, and other not-so-desirable substances. Over time, this greatly contributes to any chronic medical conditions you have, including high blood pressure and high cholesterol, heart disease, water retention, and weight gain. This type of “meals on wheels” diet is also deficient in fiber, many vitamins and minerals, and essential fatty acids (the required fats). Lack of these nutrients can lead to acute deficiencies, dry skin and rashes, fatigue, mood swings, and energy disorders.

**Dietary guidelines for junk-food junkies**

Fast-food eating should only be an occasional treat and not a main part of your diet. For your optimum health, you must consume a higher amount of fresh foods, as described in the Healthy American Diet in Chapter 2. Even at fast food establishments, you can choose relatively healthier options by ordering baked poultry and fish, salads, and less sugary drinks. Go light on the fries, the shakes, added cheese, and especially fried meats like bacon and hamburger patties.

**Supplement guidelines for junk-food junkies**

While you are transitioning from a fried chicken diet to a more fresh and wholesome diet, add extra supplements to prevent common deficiencies and build up your tissues and organs. During your transition, you may want to consider the following recommendations:

- **Vitamin E, grape seed extract, and other antioxidants** to protect against oxidized fats (ones changed by oxidation that the body has to detoxify)
✓ **Selenium and vitamin C** to help your body deal with the chemical exposure from pesticides, paints and carpets, formaldehyde wood, food chemicals, and preservatives

✓ **Additional fiber** to correct an inadequate intake and keep your bowels healthy

✓ **A complete vitamin and mineral supplement** to address all the possible deficiencies that may come from your current diet

### Herb guidelines for junk-food junkies

**Herbs for your liver and gallbladder:** Junk food is high in fat and chemicals that have to be processed by your liver. Cooked and processed fats often promote gallbladder stones and inflammation. If you refuse to give up your double cheeseburger with fries, try adding a supplement to move the bile and protect your liver. We recommend an herb formula taken just after meals containing artichoke leaf, burdock root, and dandelion root.

**Herbs to protect your heart:** Foods high in fat and refined sugar are notoriously hard on your heart and blood vessels. To help protect them, take antioxidant herbs for the heart like ginkgo, green tea (shown in Figure 11-3) or green tea extract, and hawthorn on a daily basis.

![Figure 11-3: Green tea acts as a protector for your heart.](image)

**Herbs for cancer prevention:** Refined sugar is an immune
suppressant. Normally, your immune system regularly monitors your tissues and eliminates abnormal cells that can potentially form the basis of a malignant tumor. Fried and charred meats are known sources of cancer-promoting substances. To help keep your immune system vigilant, add herbs like astragalus, reishi, and shiitake to your supplement program. To help your liver and bowels eliminate toxins, add burdock, yellow dock, and a high-fiber supplement. (And for more information about helping your immune system, see “A Program to Support Your Immune System” earlier in this chapter.)

A Program for Energy Enhancement

Most people we treat in our clinical practices say that they want more energy. If you’ve ever dragged yourself out of bed dreading a full day of work, you can relate. The reasons you may have a low energy level or suffer from chronic fatigue are complex and varied, but the energy equation is simple. How much energy you have throughout the day is equal to how much energy your cells make and how much you spend in activity. You make energy most efficiently from eating nutritious foods, burning their energy with an efficient digestive tract, and receiving ample oxygen from your breathing mechanism. You spend energy in countless ways, many of which are unnecessary. If you don’t have enough energy for your daily needs, and if you feel depressed or run-down, think about improving your digestion, eating mostly high-quality, organic foods and superfoods (see Chapter 9 for more information), and eliminating non-essential uses of energy. For example, if you worry a lot, have chronically tight muscles, think about situations you can’t do much about, or stay up late, you’re probably wasting a lot of energy.
Dietary guidelines for energy enhancement

Our experience over 25 years in our clinical practices is that a high-energy diet is one that includes primarily raw, uncooked foods that are organically grown and as fresh as possible. Such a diet includes fresh fruits and vegetables, unroasted nuts and seeds, and lots of sprouts, made from grains (wheatberries), beans (lentils or mung), seeds (sunflower or alfalfa), and nuts (almonds). Sprouts may be one of our most important foods; after all, they’re still growing when you put them in your mouth! Lots of fresh foods can enhance your energy levels, but remember to balance these live foods with lightly steamed vegetables, cooked grains and legumes, and a little meat, if you’re not a vegetarian. (If you are a vegetarian, include a healthy meat substitute in your diet instead.) Vary your diet with the fresh foods of the seasons, your personal needs, and the type of work you do, but always add some live foods, and freshly squeezed vegetable and fruit juices.

Supplement guidelines for energy enhancement

Supplements that support energy include just about every supplement that’s involved with metabolism — all the B-vitamins, most minerals, amino acids, and fatty acids. Special supplements that support energy are CoQ-10, carnitine, creatine, SOD, and octacosanol. If these names all sound Greek to you, check out Chapters 5, 8, and 9.

Herbs for energy enhancement

In this society and many others, people often use stimulants, substances that artificially stimulate your nervous system, for both work and play. The most common herbal stimulants are
Stimulant herbs seem to be giving you energy but can actually rob you of energy. The sense of elation you feel after a nice cup of double espresso is actually your body borrowing energy from the next day, or even the next week. That’s why you often have a harder and harder time getting going the next morning after running on caffeine all day. Although not harmful if used properly and moderately, stimulants are often taken carelessly when people fail to take into account their individual differences. For example, people with high blood pressure or weak digestion, or those who are under a lot of stress should avoid stimulants.

You actually have a fixed amount of energy to last throughout your entire life. Because your entire body, mind, and emotions all run on energy, learning to use your most precious resource wisely is the key to health and happiness. When you waste energy through worry, stress, and tension, you have a lot less available to do creative work, play sports, and to enjoy your favorite things.

**Siberian ginseng** *(Eleutherococcus sensticosus)*: Studies show that taking Siberian ginseng regularly can enhance your natural energy and improve endurance. *Eleuthero*, another name for Siberian ginseng, is known as an *adaptogen*, which helps your body adapt to stress and change and prevents illness.

**Ginseng** *(Panax ginseng)*: Sometimes known as the “energy herb,” this revered herb is particularly well-known for its ability to facilitate digestion. Because digestion is the source of your daily energy, when you improve the efficiency of your digestive system you gain more energy, as well as strengthen your immune system and hormone balance.

**Ephedra** *(Ephedra sinensis)*: Ephedra, also known as *ma huang*, contains ephedrine and is used as a decongestant for colds, coughs, asthma, and hay fever. Although today ephedra is a common ingredient in formulas for energy enhancement and weight loss, we discourage this nontraditional use and potential overuse.

As a nervous system stimulant, ephedra may cause anxiety,
nervousness, or sleeplessness, and its use should be avoided during pregnancy.

**Guarana** (*Paullinia cupana*): Guarana contains more caffeine than coffee and has been used traditionally for headaches, mental fatigue, and heat exhaustion. Many dietary supplements include this herb for energy stimulation, which is unfortunate, because it can deplete your body’s storehouse of energy.

Don’t take this herb if you have high blood pressure.

**Kola nut** (*Cola acuminata*): Another caffeine-containing herb, kola nut stimulates the central nervous system and is used for *narcolepsy* (a disease where you instantly fall asleep), fatigue, and exhaustion.

Don’t use this herb if you are pregnant, have poor digestion, or have symptoms of anxiety, nervousness, or sleeplessness.

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### A Program to Aid Your Brain and Memory

Your nerves transfer all kinds of information and allow your whole body to function, and your brain requires just the right nutrients to help it send messages effectively.

Many substances (mostly drugs and chemicals), over-stimulate or sedate your brain activity. Some examples of stimulants include caffeine, cocaine, and amphetamines, while sedatives include alcohol, barbiturates, and many tranquilizing medicines, including commonly used antihistamines.

**Dietary guidelines for your brain and memory**
A diet that benefits your brain function is chemical-free and nutrient-rich. It includes plenty of wholesome foods, especially fish, nuts, and seeds, all of which contain many of the brain nutrients. Soy and other beans are high in phosphorous compounds that your nerves need to function well. The good oils — EPA and DHA in seafood and the essential fatty acids in vegetable oils, nuts, and seeds — facilitate brain function. Plenty of fresh fruits and vegetables, including sprouts, provide the many phytonutrients (nutrients from plants) that encourage optimum health.

Foods containing chemical additives, such as heavily treated and highly processed foods, as well as the regular use of sugar, alcohol, nicotine, and sedatives can throw a monkey wrench into the complex workings of your nervous and hormonal systems. Additives such as aspartame, MSG, artificial flavors and colors, and BHT can affect the brain chemistry of some people, altering your moods, mental clarity, and energy levels.

**Supplement guidelines for brain and memory**

The brain needs all the right nutrients — vitamins, minerals, amino acids, and fatty acids. Special nutrients for the brain and nervous system that can improve your memory include phosphatidyl choline from lecithin, glutamine, and all the antioxidants like vitamin E, vitamin C, and the carotenoids.

**Herbs for brain and memory**

📍 **Gingko** (*Ginkgo biloba*): Research and clinical experience show that ginkgo extracts boost the brain’s ability to use oxygen and enhance the action of neurotransmitters, the chemicals that make brain and nervous system function possible. Ginkgo increases blood flow to the brain, enhances brain metabolism, and increases alertness, memory, and brainpower. Ginkgo is effective
for improving memory, mental alertness, and mental energy.

**Rosemary (Rosmarinus officinalis):** This pleasantly pungent herb invigorates the mind and nervous system and contains powerful antioxidant properties.

**Gotu kola (Centella asiatica):** The people of India have used this herb for more than 2,000 years to improve memory and mental vigor. Use this herb when it’s fresh, because the dried form rapidly loses its potency. When buying it in tincture form, be sure to buy tinctures made from fresh plants, not dried ones.

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**A Program to Improve Your Mental Health**

A wide variety of foods can alter your brain chemistry and hormones and affect how you feel, causing agitation or feelings of depression. For some people, the results of eating such foods can be dramatic; however, some people don’t ever notice the subtle changes in their mental clarity or energy levels, because they often happen slowly. These changes may be a result of food reactions (allergies, intolerance, or hypersensitivity), or from the way your body uses the proteins and fatty acids in your diet. Remember that 80 percent of the neurochemicals your body uses come from amino acids. Recently, scientists have discovered that fatty acids from seeds, legumes, and other foods can profoundly affect your mood and thought processes. Other common foods and substances that are known to alter mood, behavior, learning capacity, and energy levels include sugar, chocolate, wheat, milk, caffeine, MSG, aspartame, and as you know, alcohol.

**Dietary guidelines for mental health**

Eating a variety of foods in a balanced diet is one way to prevent mood
swings and food reactions. A healthy mixture of foods with adequate protein and essential fatty acids can help keep you clear-headed and less moody.

**Supplement guidelines**

Specific nutrients that enhance your mental well-being include a basic multivitamin and mineral supplement, appropriate antioxidants, such as vitamins C and E, beta-carotene, selenium, and zinc, extra B vitamins, and a balanced amino acid formula. In addition, you need all the essential fatty acids, including EPA and DHA (the omega-3 acids in fish) to GLA oils to the monounsaturated oils (like olive oil). Magnesium can be very helpful in treating sleep disorders and anxiety. You can also use calcium, magnesium, and relaxing herbs like valerian, kava, and California poppy if you have trouble sleeping. The amino acids tyrosine, which acts as an antidepressant and reduces anxiety, and tryptophan, which normalizes serotonin levels, can be useful for depression, anxiety, and insomnia. A complete B vitamin supplement, especially with B-6, helps promote good mood and mental function.

**Herb guidelines for mental health**

Use the following herbs to help regulate your moods and treat anxiety and insomnia.

✔️ **California poppy**: This herb is effective in tincture, capsules, or tablet form for relieving mild anxiety, nervousness, and sleeplessness. It isn’t habit-forming, and can also be given safely to children.

✔️ **Valerian**: Valerian has a long history of use to relieve emotional stress, sleeplessness, and nervousness. Many clinical studies support such uses of this herb.

✔️ **St. John’s wort**: This herb is clinically effective for the
treatment of mild to moderate depression. Researchers have concluded that St. John’s wort is just as effective as pharmaceutical antidepressants, with none of the side effects of those drugs.
Chapter 12

As Young as You Wanna Be: Nutrition and Supplements for Longevity

In This Chapter

► Practicing healthy habits to slow the aging process
► Choosing the right supplements to keep you youthful
► Staying young with herbal antioxidants

We are all unique individuals whose lives are likewise unique. We all age differently and experience challenges and problems that are peculiar to us. Some of the aging process is genetically influenced; however, much is in your own hands. In this chapter, we want to discuss those factors over which you have influence.

As with all health issues, how you live determines how you feel, look, and age. Attitude is very important. Some 70- and 80-year-olds have an admirably rosy disposition and act youthfully. They take care of themselves, look good, eat well, exercise, and may still be sexually active. On the other hand, some 30- and 40-year-olds may have very negative outlooks on life, feel no motivation, and have many destructive behaviors. They eat junk food, don’t exercise, use harmful drugs, and usually look and feel older than they are.

A Quiz to Determine Your
Aging Rate

Is your chronological age the same as your biological age? Research points to these factors as the most important for determining your aging rate.

Directions: Write a number between 0 and 4 beside each question, where 0 is never, 1 is rarely, 2 is sometimes, 3 is often, and 4 indicates a regular habit.

Do you:

✓ Drink 5 to 8 glasses of water, herb tea, or diluted juices daily?
✓ Get to sleep before 10:30 p.m., and find your sleep is refreshing?
✓ Exercise daily through stretching, dancing, walking, running, biking, or weight training?
✓ Avoid overeating?
✓ Express your feelings freely without feeling guilty or remorseful?
✓ Handle stress well, letting it go quickly?
✓ Care about yourself and know you are worth it?
✓ Eat a balanced diet consisting of at least 80 percent fresh, whole fruits, vegetables, whole grains, legumes, nuts, seeds, and fish?
✓ Avoid cooked fats, especially animal fats; eat olive oil, and occasionally other high-quality oils?
✓ Follow a mostly vegetarian diet or eat fish 1 to 5 times weekly, mostly avoiding red meat?
✓ Take antioxidant and other preventative herbal and nutritional supplements?
Take full and complete breaths, practicing proper breathing techniques?

Follow a regular dietary cleansing program?

Really care about yourself, and you’re not afraid to express it?

Laugh at yourself, and don’t take yourself too seriously?

Maintain a positive attitude, without dwelling on negative thoughts, or consistently worrying?

Have healthy relationships and a good support group?

Have healthy parents, or parents who have lived to be over 80?

Enjoy work and find it to be a satisfying outlet for your creative abilities?

Feel passionately about something you do, in work or play?

Add up your scores to rate your biological age. If you scored:

- 0 to 10: Add 10 years to your chronological age
- 11 to 20: Add 5 years to your chronological age
- 21 to 40: Your biological age is the same as your chronological age
- 41 to 60: Subtract 5 years from your chronological age
- 61 to 80: Subtract 10 years from your chronological age

Depending on how you scored, you may want to begin a supplement program to help you stay as young as you feel. Read on!

The Indispensable Dozen: 12 Factors That Influence Aging
Adopting the following healthy habits can keep you feeling and looking good into old age.

✔️ **Don’t dig your grave with your knife and fork.** This favorite expression of Paul Bragg, life extension specialist, sums up the major factor for staying young longer. Scientists have studied aging for years, and so far, the conclusion is simple: *Eat fewer calories and get more antioxidants.* Both animal and human studies suggest that the key factor that actually adds years to lives is consistent undereating, or eating slightly less than your body needs and staying slightly underweight.

Most humans in economically developed countries consume far too much food. They make the wrong kinds of high-calorie, low-vitality choices and do not experience the benefits of cleansing diets and detoxification. Herein, you can see how little food it really takes to run this human machine most efficiently. We both cleanse every year, and it always brings us back to that same point — we feel better, clearer, more energetic, lighter, and healthier — by eating lightly and eating the right stuff. (See Chapter 2 for more information on a cleansing diet.)

✔️ **Don’t smoke.** Smoking cigarettes is the surest way to subtract years from your life. Smoking clearly ages people beyond their years and contributes to earlier onset of a great many chronic diseases. Smokers are easy to spot because of the increased wrinkles on their faces, the ashen color of their skin, and the fact that they often look 10 to 15 years older than their chronological age.

✔️ **Drink water as your main beverage.** Drinking plenty of water keeps everything working in your body, hydrating the skin, cleansing toxins from the cells, and circulating all your nutrients.

✔️ **Eat a healthy diet.** You need all the right nutrients and a wholesome diet that includes fresh and vital foods — fruits and veggies, grains and beans, nuts and seeds — and fewer animal foods (milk, eggs, fish, fowl, and meats) than most people consume. The right fatty acids in good-quality oils are very important. Avoid excess animal fats and proteins, and eat a higher
complex carbohydrate, mostly vegetarian diet.

✔️ **Get regular exercise.** Moving your body and following a balanced, regular exercise program can keep you fit and youthful. Balanced exercise includes stretching for flexibility, working with weights for toning and strength, and doing aerobic activity for endurance. All exercise and movement contribute to relaxation and a clear mind and body. Practices such as yoga and tai chi offer multiple benefits to help you stay loose and young.

An ancient yoga proverb states, “You are as young as your spine is flexible.” Stretching, yoga, and tai chi all help keep you limber.

✔️ **Avoid toxins and chemicals.** Eating more foods with preservatives doesn’t mean that you will be better preserved. Most chemicals, such as pesticides and herbicides, food additives, and environmental and household chemicals, are irritants and can damage cells and tissues. Daily consumption of harmful substances — from sugar and processed foods to fried foods and lunchmeats to excess salt, caffeine, alcohol, and nicotine — can speed aging.

✔️ **Take your vitamins.** Taking vitamin supplements helps to supply your cells, tissues, and entire body with all the natural substances with which it performs its millions of functions. These natural substances include all the vitamins, minerals, fatty acids, and amino acids.

✔️ **Take extra antioxidants.** The free radical theory of aging was just a crackpot theory 15 or 20 years ago. Scientists scoffed at the idea, but now many are embracing the idea that dangerous oxidized molecules, called *free radicals*, may be responsible for much of the tissue damage that occurs during the aging process. Now we know that free radicals damage the skin and collagen, speeding wrinkling, and contribute to hardening of your blood vessels, greatly increasing your risk of a heart attack or stroke.

Antioxidant nutrients help to protect you from these free radicals, keeping your tissues young and vital longer. These nutrients include the vitamins C, E, and A with beta-carotene, the minerals selenium and zinc, the amino acid L-cysteine, and other nutrients
such as glutathione (which helps detoxify chemicals) and active enzymes, such as superoxide dismutase (SOD) and bromelain. A number of herbs, such as ginkgo, hawthorn, and rosemary, have potent antioxidant properties. (See Chapters 9 and 10 for more information on antioxidants.)

Undergo regular periods of detoxification unless you are underweight or you suffer from problems of deficiency, which you may experience as fatigue, body coldness, dry skin, anemia, hypothyroidism, and so on. Even cleansing diets, such as fruits and vegetables primarily, or juice and soup diets, while taking a break from habitual or abusive substances, is wise for most people and is one of the great anti-aging tools. (For more information on detoxification, see Chapter 2.)

Avoid excessive electromagnetic exposure. Your body is electromagnetic, as are many of the functions of your cells and nervous system. Being in an adverse electromagnetic field can alter cell function and may put you at risk for cancers and leukemia. If you live in an area with power lines and transformers or you sit in front of a computer for long periods, find out about ways to protect yourself. You can try taking regular cold-water baths or taking hot baths with salt and baking soda and taking daily antioxidants like vitamin E, C, and grape seed extract. To find out more information about protecting yourself from electromagenetic exposure, check out the Web site www.fgf.de/veranstaltungen/1998092425.html.

Learn to handle stress. Frustration, anger, worry, extreme emotions in general, and stress of all kinds affect the body and create damaging biochemistry, such as more free radicals. Look in a bookstore or your local library for a book on managing stress.
and eliminating its negative effects on your body.

Think positively and treat yourself with love. Attitude is extremely important. Loving yourself and expressing this love for yourself enables you to adopt many other healthy habits, such as not smoking, eating better, and exercising. Attitude is the single most important key to happiness and long life.

Supplements for Anti-Aging

Today, a wide variety of natural supplements are available to help you maintain an active, healthy lifestyle to a ripe old age. The most important of these youth-promoting nutrients are described in this section. Follow the manufacturer’s label directions for dosages, but remember that obtaining these nutrients from natural sources is always best. (We provide natural sources for most of these substances in Chapters 3 through 10.)

You should start with only a few of these supplements to determine their benefits before adding more. You can add a few more to your regimen later, based on your individual needs. Feel free to experiment, because that’s how you figure out which supplements work for you and which don’t. Check out the information we give on each supplement and see whether it sounds right for you. (You can also see Chapter 1 for a table of the basic daily supplements and their dosages.)

Carotenoids (beta-carotene) and vitamin A: Antioxidants that protect and support cells, help reduce abnormal cell growth and tumor formation, and protect against certain chemicals. Help to prevent common ailments like arthritis, heart disease, cancer, and memory loss.

Cysteine: An antioxidant amino acid that is the precursor, along with selenium, of glutathione peroxidase enzyme, which helps to detoxify and protect your body from chemicals. If you
take cysteine regularly, also take a formula containing the other amino acids as well. (See Chapter 5 for more information on amino acids.)

**Fiber:** Helps the body eliminate wastes properly, which is particularly important for the elderly. Fiber also detoxifies chemicals, lowers cholesterol, and may protect against certain cancers.

**Phytonutrients:** The active chemicals in the foods you eat every day that scientists have studied and found to have specific healthful qualities. Phytonutrients, such as the lycopene in tomatoes, the genistein in soy, and the polyphenols in red wine, may be essential for your body’s health, but research has not determined how much you need daily. Traditional diets, which contribute to the longevity of people around the world, are rich in these phytonutrients, and science is constantly identifying new phytonutrients.

**Vitamin C:** Has been shown to improve longevity in elderly people who take regular amounts (500 mg with morning and evening meals); helps protect cell membranes and prevent abnormal cell growth; helps to control LDL (bad) cholesterol and boosts immune function, partly by raising the body’s levels of the antioxidant glutathione, which is essential for proper immune function. Vitamin C can actually reactivate vitamin E to keep working, so make sure to take them together.

**Vitamin E:** A great antioxidant that protects cell membranes and artery tissues, reduces your risk of cardiovascular disease, and protects against air pollution. High levels of vitamin E in your system may help prevent the intellectual decline that can come with aging. Take 400 IU/day if you have a small body size or if you eat a diet that contains lots of whole, unroasted seeds, nuts, and whole grains. If you are over 160 pounds, over 40 years old, or get very few of the previously listed vitamin E source foods in your diet regularly, take 800 IU/day.

**Selenium:** Works with vitamin E; is needed to form the important glutathione enzymes, which detoxify chemicals. May
also help to prevent cancer, which is shown in many studies.

**Zinc:** A mild antioxidant itself, zinc helps to support another antioxidant enzyme and keeps the tissues and immune system healthy, especially in the elderly.

**Folic acid:** Helps RNA and DNA, aids in red blood cell production, and supports normal cell development.

**Essential fatty acids:** Support healthy cell membranes and cells and encourage mental activity. Essential fatty acids can be taken in capsule form, or in oil form to be taken by the spoonful or sprinkled on food.

**Omega-3 fatty acids:** Protect against cardiovascular problems, the greatest cause of early demise. Studies show that omega-3 fatty acids can help prevent the formation of blood clots that may block an artery, leading to heart attack and stroke. Fish and fish oils are excellent sources.

**Vitamin B-12:** Provides energy and prevents nerve damage by protecting nerve coverings, as well as aiding in cellular development.

**Niacin:** Stimulates circulation and helps break down cholesterol, lowering the risk of cardiovascular disease.

**Copper and manganese:** Copper and manganese are a significant and essential part of important enzymes that protect your cells and organs from damage by free radicals. These enzymes can’t do their jobs without manganese, copper, and zinc.

**Magnesium:** Protects the functions of cells, the nervous system, and the circulation. Magnesium aids in energy production, and many enzymes can’t work properly without it.

**Calcium:** Affects the body in a multitude of ways. Helps build strong bones, contributes to energy production and heart and nerve function, and protects against colon cancer. Prevents and slows osteoporosis, a progressive loss of bone mass that can occur with increasing age.

**Chromium:** Helps to balance blood sugar; may protect against
diabetes and cardiovascular disease.

**Molybdenum**: A trace mineral that may play a role in cancer prevention.

**L-Carnitine**: Helps to balance fat and cholesterol metabolism and benefits energy production.

**Co-Enzyme Q-10**: Supports the immune system and also helps the heart and muscle cells produce energy.

**Probiotics, Lactobacillus, and other friendly bacteria**: Having healthy bacteria in the colon supports body function and protects against colon cancer and possibly other diseases.

**Digestive enzymes**: Proper digestion of food allows better absorption and better nutrition getting into your body and cells; enzymes like bromelain and papain also reduce bodily inflammation. (See Chapter 7 for more information about these two and other enzymes.)

**Hydrochloric acid (HCl)**: Allows the proper breakdown of foods, particularly proteins, which reduces toxicity. Your body’s natural HCl level often becomes deficient as you age.

**Mucopolysaccharides (also known as chondroitin sulfates)**: Provide structural building blocks that keep joints and cartilage healthy and resilient and promote regeneration; may also reduce inflammation and cardiovascular problems.

**Choline**: Supports cell membranes and nerve and brain function. Found in lecithin, which soy products contain in large amounts.

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**Herbs for Anti-Aging**

Herbs contain many life-extending chemicals that can help keep you healthy well into old age. Herbs, as well as certain foods (such as grapes, beans, and many vegetables and greens), contain high
concentrations of free radical-fighting antioxidants that offer protection for specific organs, as well as for the entire body.

You may want to consider taking some of the well-researched herbal antioxidants, such as milk thistle, ginkgo, and grapeseed, on a daily basis for extra protection. See Chapter 10 for more information.

The following herbs are particularly helpful in combating the aging process:

- **Garlic** can help to normalize cholesterol levels, as well as improve the ratio of good to bad cholesterol. It also appears to reduce blood pressure, protect against free radicals, and slow blood coagulation. Regular use may help to prevent cancer. Consider garlic, shown in Figure 12-1, for protecting the blood and cardiovascular system from vessel damage and blood clots.

![Figure 12-1: Garlic can help normalize your cholesterol levels as well as spice up your meals.](image)

- **Ginger** helps you keep your digestive system in good working order, which is extremely important as you age. Ginger stimulates blood flow to the digestive organs and enhances assimilation of important nutrients like essential fatty acids, amino acids,
vitamins, and minerals. Because the digestive system is closely linked to the immune system, keeping it in optimum condition makes you more resistant to colds and infections.

**Ginkgo** concentrates itself in the brain tissues and has a beneficial effect on many aspects of brain function, especially symptoms associated with aging. A number of studies show that ginkgo significantly improves alertness, mood, memory, headaches, vertigo, and intellectual capacity. A recent study found that ginkgo (shown in Figure 12-2) may improve the memory of Alzheimer’s disease patients. The herb has also been shown to protect cell membranes in the brain and other tissues against damage from free radicals.

![Ginkgo](image)

**Figure 12-2:**
Ginkgo helps improve your alertness, mood, and memory.

**Ginseng** (red Korean or red Chinese) is a valuable herb for helping you stay young and active. Known as a longevity herb, ginseng is used regularly by elderly Chinese men and women to slow the aging process. Ginseng is thought to enhance estrogen and possibly testosterone levels in the body, boost energy levels, and support the digestive processes.

**Grapeseed** is another potent antioxidant and contains cancer-
fighting compounds. Not only is grapeseed (shown in Figure 12-3) an excellent anti-aging supplement, but it’s also beneficial for chronic inflammatory conditions, such as arthritis and irritable bowel syndrome.

![Grapeseed](image)

**Figure 12-3:** Grapeseed comes from the grapevine.

栄養成分

*Hawthorn* は心臓と血管系に優れている。定期的に服用すると、心臓マッスルに更多的血液が流れ、酸素と強さを増す。心血管疾患が主な死因である工業化された国家において、この強力な抗酸化物質は高齢になるにつれて良いものとして取るべきである。

*Milk thistle* は肝臓を保護し、再生する。強力な抗酸化剤である、ミルクチステルが肝細胞に集まり、周囲の組織を保護する。また、消化を改善し、老齢化で弱くなることがよくある。

For more information about these and other herbs, see *Herbal Remedies For Dummies*, by Christopher Hobbs (Wiley Publishing, Inc.).
Part IV
"The way I see it, if the fall off the wall didn't get him, the protein imbalance in his system would have sooner or later."

In this part . . .
Even though it’s found later in the book, you may want to read The Part of Tens first. In this part, we discuss the health benefits of ten popular nutritional supplements, which we both take ourselves and encourage our patients to take on a daily basis. We tell you which vitamins and minerals people tend to be deficient in, symptoms that may result from those deficiencies, and which foods you can add to your daily diet to prevent them. Finally, in this part, we share with you the answer to ten of the most frequently asked questions. We feel certain that you will find answers to many of your most burning questions right here in The Part of Tens.
Chapter 13

The Ten Most Effective Supplements

In This Chapter

- Supercharging your body’s cells with energy and vitality
- Making up for nutritional deficiencies
- Enhancing your memory and mental vigor
- Preventing common illnesses
- Easing symptoms with supplements, not pharmaceuticals

Have you ever browsed the aisles of a truly complete vitamin and mineral shop? If money were no object, you could quickly fill your basket with exotic-sounding supplements like shark cartilage, octacosanol, flower pollen, and vanadium, along with some standards like vitamins E, C, calcium, and ginkgo. However, money is often very much a consideration, and besides, do you really want to swallow 30 or 40 pills a day? They have a name for people who take 40 kinds of pills every day, and “healthy” is not it.

Of all the supplements we have tried ourselves and prescribed for our patients, we think that the ten listed in this chapter are the most effective for the most people. They are nearly universal nutrients that have many years of research to back them up. These supplements offer tremendous benefits for improving energy, relieving common symptoms, like inflammation, preventing the most common diseases, such as heart disease and cancer, and reducing the effects of stress on your body.
**Note:** This chapter lists the basic functions of each nutrient. For more detailed information about these and other nutrients, see the appropriate chapter in Part II.

**E and C: The Antioxidant Vitamins**

Arguably the most widely used supplements, vitamins E and C work as a team to provide powerful antioxidant protection against the ravages of **free radicals** — out-of-control oxygen molecules that run amuck among your body’s cells, leaving a high body count behind. Free radicals may be a major factor in aging and can contribute to heart disease, cancer, arthritis, hepatitis, and many other diseases. Vitamins E and C should be at the top of your supplement list.

Take from 400 to 1,200 IU of vitamin E with 1 or 2 grams of vitamin C daily. If you have a good diet, good health habits, and few symptoms of early aging, start at the low end. If you’re on a fast tract to fast food heaven (if you’re good), start at the higher end of the dosage range.

**The Mighty Bs: The Activity Vitamins**

Your brain, nervous system, and energy resources confront more challenges today than ever before. Think of a typical day commuting in heavy traffic to work after two cups of coffee. In this information-intensive world, your work is more likely to involve mental activity — decisions, calculations, and logic. All this activity increases your need for the B vitamins that play a role in many nervous system functions.
Although B vitamins occur in vegetables, whole grains, nuts, and seeds, they are unstable, and many are lost during cooking, processing, packaging, and during the time foods sit on the shelf. Even a slight deficiency of one of the B vitamins can impair memory, learning, and emotional stability. Supplementation with a B complex daily can help preserve your mental and emotional edge.

You can buy niacin, B-12, B-6, and others in capsules or pills, but we recommend a whole balanced B supplement containing all the B vitamins, unless your health care practitioner specifically recommends an alternative.

Women who take estrogen need more of these important B vitamins.

Calcium and Magnesium for Strong Bones and Calm Nerves

You probably know that you need calcium for strong teeth and bones, but you may not be aware that you need this essential mineral for the proper functioning of every one of your trillions of cells. You can get calcium from milk products, green leafy vegetables, nuts and seeds, meat, and other sources, but absorption is often a problem. Stress, the consumption of sugar, and other dietary factors such as eating when tired or upset can lead to borderline deficiency. (Your body’s imbalance during stressful times prevents good absorption of these nutrients.) Studies show that calcium can help preserve your bones into old age — a very good thing, if you want to walk, not roll, through the door to your ripe old age.

Magnesium works with calcium to build proteins, produce energy, and support good nerve function. Supplementation can help with poor sleep, anxiety, menstrual and muscle cramps or spasms, high blood pressure,
asthma attacks, and abnormal heartbeats.

Take a supplement with calcium, magnesium, and vitamin D together. If you take calcium and magnesium ascorbate, you get some vitamin C at the same time. If you have trouble with menstrual cramps, leg cramps, or other muscle cramps, try a supplement with as much or more magnesium than calcium. If you’re taking the supplement to protect bones, take a supplement with about 1/3 to 1/2 more calcium than magnesium. (See Chapter 4 for dosage information.)

Grape Seed Extract and Green Tea Extract: The Special Antioxidants

Grape seeds and green tea serve as potent antioxidants, preventing free radicals from damaging your cells.

If you’ve ever eaten a bunch of ripe grapes and spit out the seeds, you may be wasting the best part. Most people don’t like the crunchy and astringent taste of the seeds and prefer seedless grapes that are just sweet and juicy. Seedless grapes are just about all you can find in today’s supermarkets.

Ironically, manufacturers are taking the seeds from grapes when making juice or concentrated grape juice products, making an extract of them, and selling it at a high price. That’s creative marketing, folks. According to the latest research on those astringent or puckery compounds in the seeds, called polyphenols or oligomeric proanthocyanidins (OPCs), the products are worth the money. Regular consumption of polyphenols may help prevent heart attacks, strokes, and cancer and help keep you looking and feeling young.
When you buy or grow grapes to eat or for juicing, try grapes with seeds some of the time. (And buy organic grapes if possible.) Knowing the amazing health benefits can help you get past the crunch, and you might find that they grow on you.

It’s a no-brainer that the second most popular beverage in the world (after water) contains caffeine, but more surprising that this drink is not coffee, cola, or even black tea. The beverage is green tea, or unfermented tea — the national drink of China and many other Asian nations.

If you’ve ever tasted a cup of green tea in a Chinese restaurant, you know that it has a pleasant, mildly astringent taste. That puckery astringency comes from the polyphenols, similar to the ones in grape seeds. Studies with large populations of people in China have shown that people who drink more green tea live longer and have less heart disease and cancer. Green tea is also a fantastic antioxidant. Take it daily, with or without grape seed extract, to slow aging and protect your skin, organs, and tissues from the ravages of time.

If caffeine bothers you, you can buy caffeine-free green tea extracts in capsule or tablet form.

### Flaxseed Oil and Flaxseed Meal

In ancient Rome, flax was called *linum*. That’s how flax oil got its common name, linseed oil. Linoleum was originally made from linseed oil, and linen cloth from the fibers in the stalks of flax. Obviously, flax is a most ancient and useful plant, and scientists are discovering powerful health benefits from the tiny seeds. Herbalists and nutritionists recommend the regular use of flaxseed oil for preventing and reducing the symptoms of arthritis, colitis, and other chronic health problems that involve inflammation.
You can purchase high-lignan flaxseed oil in the refrigerator case of your local natural food store and in some markets and drugstores. The oil contains natural estrogen-balancers that, when used regularly, can help prevent and reduce symptoms that arise during menopause, as well as protect you from cancer and heart disease.

Grinding the whole seeds to a meal in a blender or coffee grinder for a minute or two is a cost-effective way to get the tremendous benefits of flax, as well as enjoy the oil’s pleasantly nutty flavor. A tablespoon of freshly ground seeds in the morning in a little warm water or sprinkled on cereal can help keep your bowels regular and healthy. You can also add the ground flaxseed to smoothies.

Genistein and Daidzein: The Phytoestrogens

Scientists say that we live in a sea of estrogen. Many of the thousands of new chemicals that are added to your food and water and released into the air, water, and soil are known to act like estrogen in your body. Plastic releases substances into your water and food that stimulate estrogen tissues in your body. Researchers are not sure that these estrogens increase your risk of breast, uterine, and prostate cancer, but many believe that it’s likely.

Researchers also say that the best way to reduce the rising incidence of all cancers is prevention. Great public and scientific interest is now focused on a simple food that may have the power to protect us from ourselves and from many of the sometimes helpful, sometimes risky chemicals that we create — the bean. All beans (especially soybeans) contain a class of compounds called isoflavones like genistein and daidzein that selectively block many of the harmful effects of environmental estrogens.
Genistein and daidzein are available in capsules and tablets containing extracts of soybeans, red clover, and kudzu root, all of which contain high concentrations of phytoestrogens. And all beans contain isoflavones. Eating beans regularly — at least three or four times a week — can supply your body with these protective compounds.

Spirulina and Nutritional Yeast: The Superfoods

Easy to assimilate and packed with powerful nutrients, superfoods are the way to go, especially if you’re on the go. Increasingly, juice drinks and nutritional and energy bars contain superfoods such as spirulina and nutritional yeast. Spirulina is packed with B vitamins, chlorophyll, amino acids, and enzymes. Nutritional yeasts also contain amino acids and chlorophyll. Because of their high amino acid and B vitamin content, many superfoods are excellent mood- and energy-boosters.

Nutritional yeast supplements are available in flakes and tablets. Take the tablets or use the flakes daily on your food, in soups, and in power shakes. Yeast is one of nature’s best vegetarian muscle-builders and is great for weight-reducing programs, too.

Spirulina is a great natural source of antioxidants like superoxide dismutase (SOD), beta-carotene, and chlorophyll. An ancient Aztec food, spirulina is a great natural source of tryptophan, the starting material for your body to make serotonin for good mental and emotional health. Increase your dose of spirulina, a great natural detoxifier, during cleansing and fasting programs.

Milk Thistle: The Liver
Protector

Your liver is like a personal assistant that takes care of the millions of details in your biological life. It is the major detoxification organ, estrogen and energy regulator, and storage facility — it even provides support for your digestive organs and immune system. The liver is a veritable chemical factory, producing hundreds of enzymes and other vital substances.

For all it does for you, we bet you rarely even think of your liver, much less give it the thanks and support it needs to keep working right. Liver diseases like hepatitis C are on the rise, and liver disease is the sixth leading cause of death in the United States. Fortunately, several potent liver protectors are available in capsules and tablets for daily use. We recommend adding some of these to your daily supplement regime, especially when you drink alcohol, use drugs, or take prescription drugs or over-the-counter pain medications like aspirin and acetaminophen.

Milk thistle extracts contain a group of active flavonoids called silymarin. Tablets and capsules containing silymarin help protect your liver from the damage it can suffer when exposed to preservatives, industrial chemicals in your home and environment, drugs, alcohol, and viral infections like hepatitis B or C. Silymarin is also known to help stimulate liver cell regeneration, assisting your liver in its efforts to stay healthy. Milk thistle can also help promote good bile flow for better fat digestion.

If your liver is already stressed from alcohol, drugs, or hepatitis, make sure to add a B-vitamin supplement and vitamins C and E, along with milk thistle. In addition, eat a low-sugar, ample-protein diet with lots of fresh fruits, vegetables, whole grains, and beans and avoid fatty and fried foods. Most of the supplements in this chapter can help support your liver.
Ginsengs: Energy Boosters and Stress Relievers

We know that you’d like more energy, more sexual vigor, and protection from stress. That’s why ginseng supplements are so popular and probably the reason ginseng is just as abused in China as coffee is in North America and Europe. Ginseng can give you more energy and help maintain sexual vitality, especially as you get older. And unlike coffee and other caffeine-containing drinks, it does not add extra stress to your adrenals and nervous system.

There are three major types of ginseng:

✔️ Eleuthero ginseng, also called Siberian ginseng, is the ginseng to help you adapt to stress, travel, work schedules, and changing jobs, and for increasing endurance and shortening recovery times during and after workouts.

✔️ American ginseng is the best ginseng to increase your energy when you have chronic fatigue, especially related to overwork, years of stress, and a history of high sugar and stimulant intake.

✔️ Asian ginsengs come in red and white forms. They promote good digestion, increase energy, and are popular for people over 50 to help maintain sexual vigor. When Asian ginseng is specially processed, red ginseng is produced. Red Chinese or red Korean ginseng is the warmest and most stimulating ginseng and may help your body produce more sexual hormones and stimulate energy release.

If you have high blood pressure or often experience nervousness, anxiety, or insomnia, see your herbalist before taking red ginseng. To help you find a safe and knowledgeable herbalist, see Appendix A.
Garlic: The Smelly Savior

Like many folks who like to eat, we love our garlic. We feel fortunate that our spouses do, too. Garlic is smelly, and your breath usually says more than words about how much of it you like to eat. Despite the major health benefits of this ancient bulb from the lily family, many people will not eat it because of the smell or the mild burning sensation from eating therapeutic quantities in food. But the fear of your friends wanting to keep their distance because of your distinctive aroma, talking to you only by e-mail, is no longer a good excuse for avoiding garlic. Today, many excellent garlic products that are odor-controlled and still have therapeutic benefits are available in local stores.

Regular use of garlic can help keep your cholesterol and triglycerides within the normal range, reducing your risk of cardiovascular disease. Garlic also enhances digestion and your body’s use of nutrients, and may help prevent some kinds of cancer. Garlic’s antibiotic powers can help you avoid colds and flu and reduce mucus congestion and other symptoms when you’re sick.

If you’re using garlic for its antibiotic or antiviral effects, choose a garlic product that is standardized by the amount of allicin, one of the important active ingredients. For heart and cancer protection, try a cold-dried, freeze-dried, standardized, or oil-based product in capsule or tablet form.

For colds, flu, and infections, we recommend garlic products that have at least a slight garlic odor. Completely odor-free products are best suited for cardiovascular protection because they have less antibacterial or antiviral activity.
Chapter 14
The Ten Most Common Nutritional Deficiencies

In This Chapter

► Discovering nutritional deficiencies that can affect your health
► Finding out which common deficiencies are most likely to occur in infants, children, teenagers, men, women, and the elderly
► Solving nutritional deficiencies with diet and the right supplements

Right now, thousands of enzyme reactions are taking place in your body’s cells, tissues, blood, and organs. Enzymes are facilitators that help your body’s cells produce energy and all the active immune substances, neurotransmitters, and hormones that your body requires for survival.

Each of these enzymes requires nutrients like the B vitamins, minerals like magnesium, and amino acids from proteins. If you don’t take in enough of the essential nutrients that your body needs on a regular basis, your body’s processes will slow to a crawl, and severe symptoms and even illness result. Fortunately, severe deficiencies of many essential vitamins, minerals, and other substances are rare in most developed countries. But subtle deficiencies are still common, due to poor food choices, food processing and storage, poor farming practices, and overcooking. And if your digestive system isn’t in optimal working order, you’re unable to absorb some nutrients from your food.

Although not usually immediately life-threatening, these subtle
widespread deficiencies can weaken your immune, nervous, and hormonal systems, along with the health of all your cells, tissues, and organs. Through diet studies and laboratory testing of the blood levels of nutrients in different populations, the scientific understanding of common nutrient deficiencies is complete enough to help you understand which nutrients to give special attention to in your diet, and which ones to consider supplementing. This chapter lists those commonly deficient nutrients. You can find information about the minimum daily requirements for each of these nutrients in Chapters 3, 4, 5, and 6. If you have the symptoms of deficiency and can see that you’re not getting much of a particular nutrient from its natural food sources, you may need to supplement your diet with this nutrient.

Calcium

Calcium is one of the most abundant minerals in your body. It adds strength to your bones and teeth and plays an important role in nerve conduction and muscle contraction. Children have special calcium needs because their teeth and bones are still forming. Your bone strength later in life is directly linked to how much calcium and other co-factors, such as magnesium and vitamin D, you get early in life.

Possible signs of deficiency: Increased tooth decay, weak bones and osteoporosis later in life, and muscle weakness and cramps.

Natural sources: Green leafy vegetables, dairy products, beans, dried figs, and some nuts such as almonds and seeds such as sesame.

Supplement amount: Take 800 to 1,200 mg a day in capsule or tablet form.
Folic Acid

Folic acid’s name comes from the word *folium*, for leaf, because it is abundant in green leafy vegetables. It helps your body make red blood cells (working with vitamin B-12) and benefits protein and amino acid breakdown and use. Recently, folic acid has received worldwide attention because scientists discovered that pregnant women who are deficient in this essential nutrient are much more likely to give birth to children with neurological defects.

**Possible signs of deficiency:** Anemia, fatigue, irritability, loss of appetite, poor memory, and mood swings.

**Natural sources:** Green leafy vegetables like spinach, kale, and chard, along with broccoli; dried beans such as pinto and soy; and lentils and dried peas. Nutritional yeast is also a fantastic source.

**Supplement amount:** Nutritional yeast in powder, capsule, or tablet form is one of nature’s best sources. The tasty flakes make a great addition to soups and stews and can be sprinkled on popcorn as a seasoning.

Iron

Iron is an essential part of *hemoglobin*, the chemical compound that makes your blood red and carries oxygen to all your tissues. Young women lose iron each month through their menstrual flow.

**Possible signs of deficiency:** Fatigue, poor endurance, mental confusion, brittle nails, anemia, shortness of breath, and loss of appetite.

**Natural sources:** Red meats, green leafy vegetables such as
spinach, nuts, seeds, wheat germ, and dried apricots.

**Supplement amount:** If you’re a woman and you’re menstruating or pregnant, add 5 to 10 mg in a supplement containing herbal extracts such as nettle leaf and yellow dock root. This will help you keep going if you’re getting some iron in your diet.

If you’re uncertain whether iron supplementation is for you, consult your practitioner. Women who aren’t menstruating and all men are potentially at risk of heart disease or infections if they supplement with too much iron. The accepted standard is that women and teenagers need 18 to 25 mg iron daily; pregnant and lactating women need 50 mg; and men and menopausal women need 10 mg or less. Men with heart risk or with already measured excess iron should avoid any iron supplementation by purchasing iron-free multivitamins.

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**Magnesium**

Magnesium works inside your cells to activate many energy-producing functions and manufacture protein. It helps to regulate muscle tone, including your hard-working heart muscle. Some researchers say that magnesium is the most common mineral deficiency among people in developed nations. Even if you have only a borderline deficiency, you can experience heartbeat irregularities or muscle cramps.

**Possible signs of deficiency:** Insomnia, anxiety, increased menstrual or skeletal muscle cramps, high blood pressure, and irregular heartbeat.

**Natural sources:** Dark green vegetables, nuts, seeds, whole grains, and beans.

**Supplement amount:** Take 350 mg in two doses to start and work up to 600 mg daily in capsule, tablet, or liquid form. You can try to go from 350 mg up to 600 mg within a week if your
body tolerates the 350 mg, or go more slowly, with 475 mg in between. Because many magnesium forms cause smooth muscle relaxation, they can loosen your bowels. If diarrhea occurs, cut back a bit or try a different form.

**Vitamin B-6**

Vitamin B-6, also called pyridoxine, can be called the “mood vitamin” because your body requires it to convert the amino acid L-tryptophan into the important neurotransmitter serotonin. Serotonin deficiency is linked to mood swings, depression, eating disorders, and sleeping problems. B-6 is also necessary for maintaining healthy nerves in general and for releasing energy from your food and can help reduce your risk of heart disease.

**Possible signs of deficiency:** Chronic nerve pain (called *neuropathy*), mood swings, depression, irritability, fatigue, and osteoporosis.

**Natural sources:** Whole grains, meats, nuts and seeds, and certain fruits and vegetables (bananas, prunes, cabbage, cauliflower, and potatoes). Because B-6 is easily lost during food processing, eating some of these foods raw is desirable.

**Supplement amount:** Take a capsule, tablet, or powder containing at least 2 or 3 mg daily. You can safely take up to 25 to 50 mg daily.

**Vitamin B-12**

Vitamin B-12 helps your body make nerve coverings and is essential for growth, maintaining normal appetite, and making red blood cells. It can also help reduce your risk of heart disease. If you are a vegetarian, eat very little meat, or are elderly, pay special attention to this
important nutrient. Scientists still have more to discover about B-12, or cobalamin, but pernicious anemia with low blood cell count, as well as nervous system problems, often result from deficiency.

**Possible signs of deficiency:** Pernicious anemia, fatigue, reduced appetite, nervous system disorders, and mild mental confusion.

**Natural sources:** Red meats and other animal foods, nutritional yeast with added B-12, and small amounts in the traditional fermented soybean food *tempeh*.

**Supplement amount:** Take 10 to 20 mcg in capsule, tablet, or liquid form. Studies show that the elderly may have a difficult time absorbing vitamin B-12, and some vitamin experts now recommend that all persons over 60 take 25 to 100 mcg daily. We recommend a bitter tonic supplement containing the herb *gentian* before mealtimes to possibly increase B-12 absorption.

If you’re a vegetarian or you suspect that you may be vitamin B-12 deficient, be careful about receiving nitrous oxide from your dentist. Also called “laughing gas,” nitrous oxide can deactivate B-12 in your body.

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**Vitamin C**

Vitamin C helps your body produce strong bones, collagen, and cartilage. Healthy collagen is essential for healthy, young-looking skin. Vitamin C is also a great detoxifier and antioxidant.

Fruit and vegetable lovers needn’t worry about vitamin C deficiency. Probably the best-known nutritional supplement, this sour-tasting vitamin is abundant in most fruits and many vegetables. Old, wilted vegetables and overripe fruits do not provide you with much — and remember that stress, smoking, and many drugs increases your need for vitamin C.
**Possible signs of deficiency:** Frequent colds or viral infections and bleeding gums. Consider taking more vitamin C if you commonly strain tendons or ligaments or if your injuries take too long to heal.

**Natural sources:** Fruits and vegetables, especially bell peppers, tomatoes, strawberries, and citrus fruits.

**Supplement amount:** Take 1 gram a day as a maintenance dose, and up to 5 grams or more when you have an injury or infection.

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**Vitamin D**

Vitamin D is essential for calcium absorption and utilization by the bones. Just 20 minutes outside on a sunny day can be enough to activate the manufacture of your daily requirement of vitamin D in your skin — about 400 IU. If you have a desk job, you love to spend a lot of time watching old movies on the couch, and your skin is milky white, you may not be getting enough vitamin D. Elderly folks tend to be deficient in this vitamin.

**Possible signs of deficiency:** Weak bones, leading to fractures or osteoporosis.

To keep your bones healthy, exercise regularly and avoid excess sun exposure.

**Natural sources:** Fish oils (such as cod liver oil), egg yolks, and very small amounts of butter.

**Supplement amount:** Take between 200 and 400 IU per day.

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**Essential Amino Acids**

Essential amino acids act as building blocks of neurotransmitters, the
chemical messengers that allow your nervous system to work. Your body also uses amino acids as an energy source, and amino acids help vitamins and minerals function optimally.

A deficiency of an essential amino acid such as tryptophan or tyrosine would really get on your nerves, because a full 80 percent of your nervous system, including your brain and mental functions, runs on amino acids. Plus, your body needs a good supply of amino acids, which are the building blocks of protein, for muscle and organ repair. If you plan on building muscle and gaining strength for active sports, think of amino acids and protein as your pro team.

**Possible signs of deficiency:** Failure to heal from injuries as quickly as you think you should, chronic back pain, fatigue, and mood imbalances.

**Natural sources:** Beans, tofu, soy products, spirulina, nuts, seeds, fish, chicken, turkey, and other meats.

**Supplement amount:** Extra protein is popular in protein drinks and powdered drink mixes. Add soy or whey protein powder to a morning power shake. If you think that spirulina or nutritional yeast is not exactly delicious, remember that these great vegetarian protein supplements come in tablets and capsules. The amount of protein powder or protein supplementation ideal for your needs must be determined by your present body weight and the amount and quality of protein you get from your food. On one extreme, if you eat a mostly vegetarian diet, and have trouble eating enough vegetable protein like beans, nuts, and seeds daily, consider getting about 25 grams a day from supplements like a soy protein powder, or about 1/3 cup (28 grams). If you add other protein-rich superfoods like nutritional yeast or spirulina to your regime, reduce soy-based protein supplements to about 15 to 20 grams (1/4 cup) a day. If you do eat a good amount of vegetable protein foods, or you eat some meat daily, you probably need only a few tablespoons at most of protein supplements, unless you are trying to bulk up with a weight-training program.
Essential Fatty Acids

We know it’s confusing — fat is bad, but some fats are essential to your health. It all depends on whether your fats have been cooked (uncooked is generally good), separated from a whole food and processed or partially hydrogenated (fresh sunflower seeds are healthful, but not necessarily the oil made into margarine), or are fresh (fresh is very good, because fats go bad faster than raw eggs in your backpack on a hot day). Of course, some fats and oils are better than others for your health. Fats you get from a variety of whole vegetable foods are healthful, along with a small or moderate amount from a variety of animal sources — especially fresh fish. The essential fatty acids linoleic and linolenic acids are so essential that every cell in your body needs them.

Your body uses essential fatty acids to lubricate your skin and tissues and support your cell membranes. Because your body’s cells depend on essential fatty acids to function normally, a deficiency can lead to hair loss, dry skin, skin rashes, coldness of the body, easy bruising, joint inflammation, and repeated infections due to weakened cell membranes that are more susceptible to virus penetration.

Possible signs of deficiency: Modern research shows that your brain and nervous system need essential fatty acids in order to function properly. Some can even affect your mood, and a shortage may increase your risk of developing a mood disorder such as depression or anxiety. The main signs of deficiency include dry skin, hair loss, body coldness, and secondarily, increased susceptibility to infections.

Natural sources: Whole seeds such as flax, pumpkin, and sunflower seeds; all nuts; and soybeans and tofu.

Supplement amount: Supplement your diet with extra essential fatty acids by sprinkling a tablespoon of flaxseed oil, hemp seed oil, nuts like
walnuts or almonds, or seeds like pumpkin and sunflower on your salads or vegetable dishes, or follow the label instructions on capsule products. (For flaxseed oil, two capsules twice daily with or just after breakfast and dinner is a common supplement plan. Or add a fish oil supplement with DHA and EPA.)
In this book, we discuss more than 100 nutritional supplements — how to pick them, use them, benefit from them, and not abuse them. We talk about organ systems, a little biochemistry, body physiology, toxicology, and posology (dosage). Any questions?

We hope that you have questions, because that tells us that you really want to treat your body right. Understanding and remembering everything about dietary supplements is impossible — that’s why we wrote Vitamins For Dummies. This chapter answers the ten most frequently asked questions that we hear from patients and students alike.

Are Supplements Safe?

The safety of supplements is an important consideration. Hippocrates, the father of natural healing, said, “First do no harm.” A recent study from the University of Toronto showed that pharmaceutical drugs kill
108,000 people a year in U.S. hospitals and are about the fifth leading cause of death, even when taken as directed. Compared to pharmaceutical drugs, dietary supplements can be considered safe, even in the worst-case scenario. Still, because the Dietary Supplement Health and Education Act (DSHEA) was passed five years ago, the dietary supplement industry in the United States and Canada has become wide open. There’s less regulation and there are more product claims than there have been in nearly 70 years. What does DSHEA mean to you? Manufacturers can make claims regarding the structure or function of an organ. For example manufacturers can claim that an herb “maintains cardiovascular health” or “helps support healthy immune function.” DSHEA disallows disease claims, such as “lowers high cholesterol” or “relieves the pain of arthritis.”

With this wide-open climate come some less-than-ideal situations. Some manufacturers are selling new supplements that do not have ample testing to determine their long-term safety. For example, when taken in therapeutic doses, DHEA, pregnenolone, and 5-HTP and amino acids like L-carnitine do not have a lot of safety data to their credit. Scientists are still scrutinizing some vitamins, minerals, and new substances sold in natural food stores and pharmacies to try to determine more about their safety and efficacy, so you need to be careful about which supplements you use, and take fantastical product claims with a grain of salt. It’s a good idea to consult your doctor or practitioner any time you plan to begin a supplement regimen.

Here are some helpful guidelines to help you determine the safety of any supplement:

✔️ Ask the employees at the store selling the supplement if they have any information regarding its safety. You can always call the company that makes the supplement; it should have data to back up its safety. The producer is ultimately responsible for supporting its products with reliable information. If the company does not have a clue about the safety of one of its products, switch
to one that *does* support its products. See Appendix A for supplement manufacturers that we recommend. If you’re currently taking medicine prescribed by your doctor, make sure you consult with him or her before taking a supplement as a substitute for that medicine.

Start with a simple supplement program. Limit supplements to two or three basics, such as a multivitamin, vitamins E and C, and one specialty supplement, such as the amino acids or enzymes, for the first one or two months. Superfoods like spirulina and nutritional yeast are usually not a problem.

Review the safety recommendations and cautions for each supplement you’re considering. You can find specific safety information on the product label and in Chapters 3 through 10 of this book.

Consult your health care practitioner and/or physician if you have a preexisting ailment, especially if it’s serious or if you’re taking prescription drugs. They can advise you about any potential harmful interactions between your supplements and prescribed medications.

How Do Supplements Interact with the Drugs I’m Taking?

Because many dietary supplements have been around for only about 50 years — and some for only a few years — researchers often do not have answers about the safety of drug-supplement interactions. We recommend that you do your own research by closely observing how you feel every day you take a supplement. (This is a great idea in any case.) If you feel worse or experience one of the common side effects — gastrointestinal upset, heartburn, or, with some supplements, burping up an oily, fishy, or garlicky taste — discontinue use of the suspected supplement and talk with your health care provider.
Because you may be taking a number of supplements at the same time, along with making dietary changes, pinpointing the specific offender is often difficult. Try discontinuing use of the most likely offender for a week and see if it helps. Remember that other factors, such as a stressful event, a sleepless night, spoiled food, or menstrual cycle imbalance, can play a role in sudden unpleasant symptoms.

Although some drug-supplement interactions can be harmful, some have a positive effect. Ones we do know about include the following:

✔ Milk thistle can change the way your liver metabolizes some drugs, making them act more or less strongly. Milk thistle also helps to protect your liver against the toxic effects of many drugs. Just keep a close watch and start with 120 mg daily — a low dose.

✔ Adding hot, spicy herbs like ginger and cinnamon to your foods can enhance the absorption of some drugs.

✔ Herbs that contain high amounts of mucilage, such as marshmallow root, psyllium seed, and flax seed, can slow the absorption of some drugs.

✔ Some tonic heart herbs, such as hawthorn and cactus, can make heart-stimulant drugs like digoxin work more efficiently. With your doctor or herbalist, consider lowering the dosage of your digoxin or heart medication if you take these tonic heart herbs. Doing so is potentially beneficial because many heart-stimulant drugs have severe side effects.

How Effective Are Supplements? Is There Any Scientific Proof That They Work?
You may accept what you’ve heard about dietary supplements as proof enough of their effectiveness. You can certainly read many testimonials on the World Wide Web and in magazines, and of course hear them from friends and family.

But just because one person has success with a supplement does not mean that you will, too. If you hear many people say that they received a benefit, then the supplement may be worth checking out. However, remember that people can be quite different in how they react to a substance — even a food. Trying a supplement for yourself is often a good thing. You are exploring healthy ways to prevent illness or to find a solution to symptoms.

Many new scientific studies are published each year that add credibility to the therapeutic use of herbs, vitamins, minerals, and other supplements. Some of the best-studied supplements include vitamin E, vitamin C, magnesium, calcium, many of the B vitamins, like niacin, and many herbs, such as milk thistle, ginkgo, garlic, ginger, and St. John’s wort. Other supplements have little or no science to back them up and very little historical use, either. Many herbs do have up to 5,000 years of safe human use to their credit. If you’re interested, evaluate all the evidence before you make up your mind. For more information on where you can find up-to-date information, see Appendix A.

Reading about a supplement in a magazine with advertising or hearing about it from a friend is not proof that it is effective and safe. You can search the world’s largest medical database for free at www.igm.nlm.nih.gov. The Office of Dietary Supplements has a special database dedicated to supplements at dietary-supplements.info.nih.gov.

How Long Should I Take
Vitamins?

Should you take vitamins for ten days or ten years? Should you take vitamin C for the rest of your life or only when you have a cold or infection? Before answering those questions, it’s useful to be aware of some basic information about yourself. Consider the following:

🔗 **Do you eat a healthy diet that consists of mostly organically grown whole grains, legumes, nuts, seeds, fresh fruits and vegetables, and fresh vegetable and fruit juices?** Then you do not need as many supplements and can use them primarily when you’re under extra stress or when you are traveling and unable to stick to a good diet.

🔗 **Are you under stress?** Do you drink more than two alcoholic drinks daily, smoke, or drink several cups of strong coffee a day? Then you need more vitamin C, E, and other antioxidants daily for a few years.

🔗 **Are you a junk food junkie?** Then you should take more antioxidants, heart protectors, circulation enhancers such as hawthorn and ginkgo, superfoods, and a good multivitamin daily. (You can see Chapter 11 for a supplement program for junk food junkies, or Chapters 9 and 10 for more information on superfoods and herbs.)

We’ve talked with many patients who have been taking supplements for 20 years or more. Linus Pauling took more than 12 grams of vitamin C daily for over 25 years and lived to be over 93 in good health. He enjoyed working until the end of his life.

**When Is the Best Time to Take Supplements?**
The best time to take any supplement is when you remember to take it. Regularity is an extremely important factor in determining whether a supplement will work for you, especially for long-term ailments or symptoms, or to prevent disease and promote longevity. If you have no trouble actually remembering to take your supplements at all, here are a few more tips for maximizing the benefits of your supplements:

- Take vitamin and mineral capsules and tablets with meals, when your digestion is most active, for maximum absorption and to lessen the possibility of gastrointestinal upset.

- Add herbal liquid extracts and nutrient powders to water, or drink teas, before or between meals for best effectiveness.

- If a supplement like garlic tends to upset your stomach, take it just before meals to reduce possible discomfort.

- Stimulating supplements such as ginseng and spirulina and energy products containing ephedra (ma huang) or caffeine are best taken in the early part of the day, not before bedtime.

If you have trouble remembering or are not very steady with your supplement program, try this trick to help you stay on track: Before bed, or first thing in the morning, put all your daily supplements into a little dish and keep it in plain sight on your kitchen counter. Another effective time-saver is to sort out a week or two’s worth of daily supplements in a special tray with 7 or 14 small partitions. You can buy these in many health food stores and vitamin shops. Spreading your supplements throughout the day (like at morning and evening meals) is best, but if you think you won’t remember, taking supplements at one time during the day is fine.

How Much Do I Take?

The adage “If a little is good, more is better” applies to love, caring, hugs, and appreciation, but not to supplements. Although the majority
of supplements have a wide safety range, too much of some, such as melatonin and DHEA, especially over the course of months, can lead to unpleasant symptoms in some people. We encourage you to take a mild or moderate dose of your supplements regularly for an extended period of time for the most reliable results.

- For the first few days, take the lowest dose recommended on the product literature to check for sensitivity.

- Adjust the dose based on your age, weight, and present condition. Children and the elderly should take the low end of the recommended dosage. You can often take more than the recommended amount if you are from 20 to 50, especially if you’re robust. If you’re a big person, take a little more; if you’re small, take a little less. If you feel weak and run-down or have a chronic illness, start with less and build up to a larger dose if you experience no negative side effects. For dosage amounts of specific supplements, see Chapters 3 through 10.

- If you have an acute condition such as a bad cold but are otherwise in good health, take a little more of the supplement for a short time.

In other words, use common sense.

If you’re thinking about giving supplements to an infant or to very young children, check with your doctor first. Children with a good diet generally do not need supplements, with the exception of a few gentle herbal medicines such as chamomile for promoting sleep and relaxation; echinacea for a cold, flu, or infection; and catnip for a fever.

What Manufacturing Guidelines Do Supplement Companies Follow?
*Good manufacturing practices (GMPs)* are the written guidelines that food manufacturers use to help ensure consistency of quality, purity, identity, efficacy, and safety of their products. Most governments require manufacturers to demonstrate that they conform to certain standards before they can sell their products. Government inspectors from the Food and Drug Administration or the local health department can come into a facility and inspect a manufacturer’s records, equipment, and analytical program. If they don’t measure up, the company can be fined and required to change its ways or stop selling one or more products. This is especially likely to happen if the manufacturer’s practices are found to put public safety at risk. Supplement manufacturers are bound by these GMPs.

Official sourcebooks like pharmacopoeias exist solely to set clear guidelines for product manufacturing. A company should be able to prove that its products do not contain unsafe levels of potentially dangerous bacteria and other microorganisms, heavy metals, solvent residues, dirt, or other contaminants. The FDA is clearly charged with overseeing this process, but as you can imagine, it can’t keep up with the thousands of small to large manufacturers of dietary supplements and herbal products.

Fortunately, the dietary supplement industry has an excellent safety record overall. In our experience, you can count on the safety and purity of the supplements you take, especially when you stick to brands that have been in the marketplace for years and have a reputation to protect. Considering that about half to two-thirds of the people in the United States take dietary supplements on a regular basis, the small number of reported side effects is remarkable.

**How Do I Judge the Quality of**
Ingredients?

This important question is one of the most difficult to answer. Most companies are not eager to talk about the sources of their ingredients, and understandably so. For some companies, many of their ingredients are simply the cheapest available. And unless a company actually tests its products in an independent laboratory, proving that they contain what they say they contain is impossible — you have to take the company’s word.

Does this make you feel nervous about your supplements? It doesn’t have to. Keep these points in mind:

- **Established and high-profile companies have a huge stake in the quality of their products.** Many companies could not survive a scandal if their products were discovered to contain substandard or adulterated ingredients, especially in today’s ultra-competitive marketplace.

- **Some small companies also make good-quality products, but generally only if they were founded by a nutritionist, scientist, or herbalist who really cares about the products.** Today, there are many marketing companies whose only goal is to make money. (Fortunately, these are the minority.)

- **Expectations regarding product quality are rising continually.** Competitiveness is a force that produces better products in every industry.

Where Do the Vitamins, Minerals, Herbs, and Other Ingredients Come From?
Small manufacturers sometimes create the ingredients in their products, but many are made by giant corporations. For example, only a few companies produce vitamin E; thus they become the origin of many other companies’ ingredients and products. Some ingredients are difficult to manufacture or require high-tech equipment to manufacture and test.

Some herbal supplements, such as echinacea tinctures, are easy to manufacture, so literally hundreds of small and large companies are creating commercial products. Some amino acids and popular herbal supplements, such as ginkgo, are increasingly manufactured in many countries.

How Do I Pick the Best Brands?

You want to get an effective product and a good value for your money, but price is not always the best way to judge a cost-effective product. How many times have you bought a supplement, taken the product for a few days, and then stopped, because you wanted results too soon? Do you have products on your vitamin shelf that are mostly unused and still sitting there after a year or more? Here’s what we’ve learned about choosing the best brands:

**Don’t choose a product on price alone.** The cheapest products are likely to be just that — cheap. On the other hand, you’re likely to pay for the brand name if you buy the most expensive product in a category. Instead, choose a few brands by reputation, word of mouth, or a recommendation from a store-owner. If the product works for you, stick with it. Brand loyalty allows a company to develop good products and respond to your needs. We discourage jumping from brand to brand based on fluctuating prices or good deals, because you may be giving up an effective product for a
cheaper one that doesn’t work. See Appendix A for a list of supplement manufacturers that we recommend.

✔ **Get information about the products you take.** Read the brochures from the companies whose supplements you choose. Call the company and talk with a representative. Ask companies where their raw materials come from and what kinds of testing they do. Do your homework, and you’ll gain the reward of better products at a better price. (See Chapter 1 for more tips on reading product labels.)

✔ **Don’t be too influenced by advertising.** We’ve seen big advertising money spent on products that are not as good as those from local companies with no advertising budget.
Part V
Complete Healing Programs for Common Diseases and Symptoms

The 5th Wave  By Rich Tennant

"Do you have the chocolate glazed nougat filled vitamin pills with the cookie crunch?"
In this part . . .

This reference guide helps you find information on nutritional supplements as well as medical treatment and lifestyle changes for many common diseases and symptoms. We organize the material first by describing the condition and telling you about common medical treatments. We then discuss nutritional supplements with scientific support, other supplement recommendations, and lifestyle changes you may want to implement if you’re dealing with a particular condition. We hope that you flip often to this handy guide as you continually monitor your health.
This guide is a practical reference guide based on our combined 60 years of experience with nutritional supplements, herbs, and dietary needs, as well as our role as coaches to help our patients develop healthy habits. In this guide, you find vitamin, herb, dietary, and lifestyle suggestions for many common conditions. We organize the information under the following categories to help you find the remedies easily.

- **Symptom name and medical description:** This section includes a clear definition of the disease or symptom in understandable terms.

- **Medical treatment:** In this section we summarize the treatment programs most doctors recommend for the symptom or condition.

- **Supplements with scientific support:** In cases where scientific studies have been conducted using various supplements for specific medical conditions, this category lists the recommended dose for the supplement and how it works in your body.

- **Other supplement recommendations:** In this category we list nutritional supplements that do not have conclusive scientific studies supporting them, but either have some science to support their use, or are commonly used in clinical practice today or historically. In this category you find supplements that we have found effective for many patients in our practices.
**Lifestyle and dietary considerations:** Your supplement program works much better when you combine it with a healthy diet and healthy habits, such as exercising regularly, doing yoga and meditation, and deep breathing. In this category, we recommend specific healthy habits that can help ease symptoms and prevent disease in an enjoyable way.

Keep in mind that the information in this reference is not intended to substitute for expert medical advice or treatment; it is designed to help you make informed choices. Because each individual is unique, a professional health care provider must diagnose conditions and supervise treatments for each individual health problem. In addition, if you want to know more about a particular nutrient or nutritional supplement, see Chapters 3 through 10 for more detailed information. You can also see Chapters 10 through 12 or the index for the Latin names of herbs in this section. Those not mentioned previously in Chapters 10 through 12 are given in this section.

**Acne**

Inside the many little pores or hair follicles in your skin are tiny sebaceous glands that produce oily sebum to keep the skin properly lubricated. With hormonal stimulation, especially at puberty, sebum production is stepped up, causing increased death of old cells and birth of new cells lining the pore. The passageway to the surface of the pore often clogs with sloughed cells and sebum, forming a nutrient-rich plug. Fortunately, sebum protects against most bacteria, but one species in particular has adapted to live on sebum. All people have this bacteria on their skin, and it’s usually not a problem. When the plug of sebum and cells gets pushed out under the surrounding skin and gets infected with this bacteria, your body produces an inflammatory response, and a pimple develops. The resulting disease is called *Acne vulgaris*. *Vulgaris* means “common,” and common it is — 80 percent of people suffer from some form of acne. It affects adolescents most commonly and...
boys more than girls. It often clears in the 20s, yet can persist over decades.

**Medical treatment:** Treatment often includes oral and topical antibiotics, with tetracycline and erythromycin used most commonly. Antibiotics do not address the other causative factors in acne and may take several weeks or months to clear up those unsightly bumps.

Many doctors recommend astringent skin cleansers and over-the-counter products sold for acne, such as benzoyl peroxide. The vitamin A derivative Retin-A, or retinoic acid, is commonly prescribed by doctors as well. Local injections of cortisone (triamcinolone) and antibiotics into skin lesions can be helpful. For advanced difficult cases, the drug Accutane is used. Although the treatment is often effective, this drug has its risks and should be used as a last resort.

**Supplements with scientific support:**

- **Pantothenic acid** decreases sebum secretion. Take 10 g divided in four doses daily, along with a cream containing pantothenic acid applied four to six times daily.

- **Zinc acetate cream** acts as an anti-inflammatory and antibacterial on your skin. Apply as directed by your doctor or health care provider. Oral zinc supplementation may also help. Try taking 30 mg per day of zinc gluconate.

**Other supplement recommendations:**

- **Burdock root and seed** helps purify the blood. Drink 1 cup of the tea or 2 droppersful of the tincture two or three times daily.

- **Oregon grape root** (*Mahonia aquifolium*) is an effective traditional remedy recommended widely by herbalists to reduce inflammation of acne. Take 1/2 to 1 teaspoon of the liquid tincture in a little water, or 2 to 3 capsules, two or three times daily.

- **Evening primrose oil** (*Oenothera biennis*) has anti-
inflammatory properties. Take 2 to 4 tablets daily (500 mg).

✔️ **Tea tree** (*Melaleuca alternifolia*) or **lavender oil** contains antiseptic properties. Apply it externally two or three times daily.

✔️ **Vitex** helps to maintain hormonal balance. Take 2 to 4 droppersful of the tincture, or 2 to 4 capsules of powdered herb, three times daily.

✔️ **Guggul** (*Commiphora mukul*) **lipids**: 500 mg in capsules three times daily. Allow about six weeks to determine the effectiveness of guggul.

**Lifestyle and dietary considerations:** Your doctor is likely to tell you that your diet has no effect on acne. If so, ask him or her if your diet has any effect on the health of your skin. Today, a tremendous body of research clearly shows that diet affects all aspects of health. The equation is simple: When health is present, disease does not flourish. When your skin is nourished with blood and nutrients, and waste products are removed regularly, your skin is healthy, and you’re much less likely to have outbreaks of acne.

Research shows that consumption of hydrogenated fats can increase your risk of acne, and healthy omega-6 fatty acids found in safflower, sunflower, and other vegetable oils can decrease your risk. If you love burgers, fries, and chocolate shakes, remember that fried foods, chocolate, and sugar can worsen the symptoms of acne. For optimum skin health, drink six to eight glasses of water daily to hydrate your skin. During outbreaks, try drinking a 6-ounce glass of cleansing vegetable juice with equal parts carrot, celery, and cucumber and a small amount of parsley.

Herbalists relate what’s going on in your colon with how your skin looks. To keep your bowels healthy, indulge in plenty of high-fiber foods like whole grains and beans. Try adding 1 ounce of wheat bran to your morning cereal for extra help, and don’t forget your acidophilus
capsules. Take three a day of a refrigerated supplement, and be consistent during and after outbreaks.

Alcoholism

Alcoholism is an excessive craving for alcohol, often leading to addiction. Alcoholics often consume large amounts of alcohol, adversely affecting their physical and mental health and disrupting their social, working, and family lives. Excess long-term alcohol consumption leads to brain damage and diseases of the cerebrovascular, cardiovascular, and gastrointestinal systems, as well as the liver, nerves, and muscles. Alcoholism can also increase the risk of malnutrition, cancer, impotence, accidents, crime, violence, immune suppression, decreased fertility, fetal alcohol syndrome, premature death, and many other problems. If those grim reminders don’t discourage you from drinking, you may have a problem. Alcohol abuse costs are well over $150 billion a year in the United States. Genetics and life circumstances contribute to the occurrence of alcoholism.

**Medical treatment:** Practitioners treat alcoholism with group and personal counseling, both on an outpatient basis and in treatment facilities. The medical profession increasingly uses anticraving drugs such as Naltrexone or Acamprosate to help alcoholics get a handle on their addiction. Twelve-step programs such as Alcoholics Anonymous (AA) are popular to help people understand their disease, promote spiritual and emotional growth, and stay away from alcohol. Aversion drug therapy is another popular treatment. Disulfram is the ultimate party pooper, causing acute nausea when alcohol is consumed. Antidepressant drugs are also increasingly prescribed. Acute alcohol intoxication is treated with hydration therapy, vitamins, nutrition, and sedatives.
Supplements with scientific support: No diet or supplement program can cure alcoholism or prevent the ravages of excessive alcohol use. Anyone who abuses alcohol should take a good complete high-potency vitamin and mineral supplement and eat a wholesome diet. Malnourishment and major nutrient deficiencies are common, especially of B vitamins.

- **Vitamin B complex** deficiency may increase alcohol craving. Take 100 mg daily of most B vitamins, except vitamin B-12, folic acid, and biotin.

- **Magnesium** can help with anxiety and irritability during withdrawal; it is commonly deficient in alcoholics. It may help decrease the brain-damaging effects of alcohol as well. Take 500 to 700 mg daily.

- **Glutamine** may help lessen alcohol craving. Take 2 g daily in divided doses.

Other supplement recommendations: Many nutritional supplements are helpful in transitioning from alcohol, avoiding it, and even for support while you do drink.

- **Vitamin B-1** must be taken regularly to help prevent permanent brain damage from alcohol. Deficiency of this vitamin is commonly found in alcoholics. Take 100 to 200 mg three times daily.

- **Pantothenic acid (vitamin B-5)** helps the body handle stress. Take 100 to 200 mg three times daily.

- **Vitamin C** speeds alcohol metabolism and may prevent some adverse health effects by preventing free radical damage. Take 3 to 5 g per day.

- **Vitamin E** may help prevent some of the damage to the nervous system and other organs caused by alcohol use. Alcohol use depletes this potent antioxidant. Take 400 to 800 IU per day.

- **Carnitine** may be useful in decreasing dependence. Take 1,000
mg per day.

- **Taurine** protects the liver and may decrease alcohol cravings. Take 1,000 mg two or three times per day.

- **Glycine** speeds clearing of alcohol from the system and has protective effects. Take 75 to 150 mg twice daily.

- **Milk thistle seed** provides liver protection. Take 2 to 4 droppersful of the tincture or 1 to 2 tablets of the standardized extract two or three times daily.

- **Wild oats spikelets** (*Avena fatua*) are reputed to help break addictions. Drink 1 cup of the tea or 1/2 to 1 teaspoon of the tincture three or four times daily.

- **Skullcap leaf** (*Scutellaria lateriflora*) helps relieve the discomfort of alcohol withdrawal and regulates the nervous system. Drink 1 cup of the tea or 3 to 4 droppersful of the tincture three or four times daily.

Make sure to tie your nutritional supplement program together with a good multivitamin/mineral/everything supplement. We like supplements that include herbal extracts, food extracts, and superfoods like barley grass and spirulina.

**Lifestyle and dietary considerations:** Remember that alcohol is a high-calorie drink that can decrease your appetite for nutrient-rich foods, leading to deficiencies. A wholesome and nutritious diet is important during all aspects of alcohol use and treatment. Eating well and regularly is important. Consider adopting the whole foods diet, which includes plenty of fresh fruits and vegetables, whole grains and legumes, some nuts and seeds, as well as animal foods like fish, eggs and poultry, beef, and milk products. The detox diet offers a healthy transition from regular alcohol use to other, more healthful beverages, such as fresh fruit and vegetable juices. (See Chapter 2 for more on these diets.)

Recent news stories promote moderate amounts of alcohol, especially
red wine, as a healthy addition to the diet. It’s true that the potent antioxidants and B vitamins in some drinks, especially red wine and naturally brewed beers, correlate to a decrease in heart disease. But researchers are unanimous in pointing out that three drinks or more lead to an adverse effect on your health. If you have difficulty controlling your alcohol intake, long experience shows you’re better off not drinking it at all. And remember that many foods provide you with antioxidant protection, including some pretty enjoyable foods and drinks in their own right, like concord grape juice, strawberries, oranges, and green tea.

**Allergies (Hay Fever)**

Hay fever is an allergic response to pollen that affects the mucous membranes of the upper respiratory tract and eyes. Symptoms include runny nose, itchy eyes, sneezing, and sometimes accompanying fatigue. Hay fever often runs in families and is usually seasonal. Food allergies and allergic reactions to dust mites, molds, and other allergens is often a root cause. Allergies are treated medically with antihistamines and anti-inflammatory drugs. According to some researchers, chronic antihistamine use could increase your risk of cancer.

**Supplements with scientific support:**

- **Vitamin C** has anti-inflammatory and immune-stimulating properties, and can reduce symptoms of hay fever. Take 2 to 3 g daily.

**Other supplement recommendations:**

- **Maug huang (ephedra)** helps decongest nasal airways and sinuses. Take 1 or 2 capsules containing a standardized extract of ephedrine. **Caution:** Can worsen conditions such as high blood pressure, insomnia, or nervousness.
Quercitin decreases allergic reactions. Take 200 to 300 mg three times daily.

Nettles contain anti-allergic and antihistamine properties. Drink 1 to 2 cups of the tea two to three times daily. Follow label directions for other products.

Golden seal checks inflammation and reduces excess secretions. Take 1 to 2 droppersful of the tincture or 1 to 2 capsules twice daily.

Eyebright contains mild anti-inflammatory and decongestant properties. Take 2 to 4 droppersful of the tincture, 2 to 3 cups of the infusion, or 3 to 5 capsules of the herb daily.

Reishi mushroom helps keep your immune system in good working order. Drink 1 cup of the tea or take 3 tablets or capsules two to three times daily.

Lifestyle and dietary considerations: Add generous amounts of garlic, onions, ginger, cayenne, and horseradish to your food. Garlic and onions have antiallergic properties. Onions are very high in the anti-inflammatory flavonoid quercetin. Horseradish and cayenne help you decongest naturally. Add 1 or 2 tablespoons of freshly ground flaxseed to your diet daily for its balanced quantities of omega-3 and omega-6 fatty acids. Choose high-quality whole foods, including grains, legumes, greens, and vegetables. Studies have shown that eating yogurt regularly can help ease symptoms of hay fever. (See Chapter 2 for more on the detox diet or allergy-elimination diet.)

Alzheimer’s Disease

Alzheimer’s disease is the leading cause of dementia. It is a progressive degenerative disease with symptoms of memory loss, loss of judgment and reasoning abilities, mood instability, inability to communicate or recognize people, behavior and personality changes, loss of physical
function, and eventually loss of the ability to care for oneself.

Recognizable deposits of a protein that scientists call beta amyloid and a peculiar kind of scarring in the brain appear along with nerve cell loss. This seemingly irreversible disease usually starts after age 65, but types that run in families often start at an earlier age. The cause is not yet known, and a cure does not yet exist. Early diagnosis and treatment are important to slow mental decline. Research shows that aluminum from cookware and antacids, along with other metal toxicity (silicon, mercury) may contribute to this difficult problem.

**Medical treatment:** Providing a mentally and physically stimulating and emotionally supportive environment helps to maintain function and to slow decline. Doctors prescribe drugs that inhibit the breakdown of the neurotransmitter acetylcholine in order to preserve mental function, along with other nerve-protecting drugs, such as Deprenyl.

With the “graying” of the population of many developed countries, researchers are researching Alzheimer’s disease extensively and are creating many new experimental and unproven drugs, yet breakthrough treatments remain undiscovered.

**Supplements with scientific support:**

- **Vitamin B-12** levels are often lower than normal in Alzheimer’s patients. Researchers point to a lower incidence of the disease in Japan, where blood levels of this essential vitamin are more often normal. Take 1 to 3 mg a day.

- **Vitamin E** helps to prevent the type of increased free radical damage seen in Alzheimer’s disease and may delay progression of the disease. Take 800 to 1,200 IU daily.

**Other supplement recommendations:**

- **Vitamin C** is an effective antioxidant to reactivation vitamin E.
Take 2 to 4 g per day.

✔️ **Folic acid** in low levels along with high levels of homocysteine are associated with Alzheimer’s disease. Take 800 mcg per day.

✔️ **Phosphatidyl choline** may delay the rate of progression of the disease by supporting nerve cell membrane health. Take 10 to 20 g daily.

✔️ **Ginkgo biloba** improves blood circulation to the brain. Preliminary studies show that ginkgo helps slow the progression of the disease in some cases. Take 1 tablet containing 60 to 80 mg of standardized extract two or three times daily.

✔️ **Omega-3 fatty acids from fish** may slow the development and progression of Alzheimer’s in some patients. Take 1,000 to 2,000 mg twice daily of DHA for therapeutic use. For normal maintenance, the suggested dosage is 300 to 500 mg, and much of this can come from eating oily fish. Some researchers recommend taking a balance of DHA and EPA, along with vitamin E.

**Lifestyle and dietary considerations:** Support general health and well-being with a wholesome, nontoxic Healthy American Diet that supplies all the essential nutrients. Like any faculty, exercising your mind daily with the study of new skills and knowledge confers some protection — in other words, use it or lose it. When it comes to mental health, curiosity might just cure the cat.

Note that smokers are twice as likely to develop Alzheimer’s disease and other forms of dementia as those who never smoke.

**Anemia**

*Anemia* refers to any condition where the oxygen-carrying capacity of the blood is diminished, resulting in less oxygen to the tissues. Modern medicine recognizes numerous causes and types of anemia. It often results from generally poor nutrition or lack of specific nutrients, such
as iron. Inadequate iron in the diet leads to iron-deficiency anemia. Insufficient B-12 can cause pernicious anemia. A lower count of red blood cells or hemoglobin means reduced oxygenation of your tissues and organs, and can lead to fatigue, lack of endurance, and shortness of breath, especially with any exertion.

Red blood cells are your delivery system for oxygen to all the tissues of your body, and they’re made by the billions every day. Nutrients needed to aid in red blood cell production include iron, folic acid, vitamin B-12, copper (for cell maturation), and adequate dietary protein. Iron-deficiency anemia is the most common by far, frequently seen in women and caused by their monthly blood loss. Iron supplementation is important for menstruating women and even more important during pregnancy.

**Medical treatment:** The first step involves an examination and blood tests to help determine the cause. Iron supplementation is often prescribed in the form of mainstream products (such as iron sulfate), which unfortunately are constipating and upset digestion. We recommend supplementing with a more bio-available form, such as a liquid iron or chelated irons, bound with absorbable proteins. In the old days, practitioners prescribed cow’s liver because it was so concentrated in iron and other blood-building nutrients. Currently, B-12 and folic acid are also used when appropriate.

**Supplements with scientific support:**

- **Vitamin B-12** helps in the formation or red blood cells. Take 500 to 1,000 mcg daily.

- **Iron** is the essential ingredient of hemoglobin, the red molecule that carries oxygen and carbon dioxide within your red blood cells. Take 15 to 50 mg per day in capsule or tablet form.

- **Folic acid** deficiency is associated with one type of anemia, called megaloblastic anemia. A therapeutic dose is 300 to 400 mcg
per day.

Other supplement recommendations:

- **Multiple vitamin and mineral supplements** usually include iron. Follow label directions.

- **Vitamin C** supplementation increases your absorption of iron. Deficiencies can cause anemia. Take 500 mg twice daily with iron.

  Excess iron can be harmful, so first be certain that iron deficiency is the cause of any anemia before taking iron supplements. The amount and duration of iron supplementation will vary with the degree of anemia. In technologically developed nations, iron deficiency is frequent in menstruating women but is more unusual in men and postmenopausal women. Iron deficiency is still the most significant nutritional problem in developing countries, where diets are apt to be low in easily assimilated iron.

- **Yellow dock root** helps the body assimilate iron, according to many herbalists. Drink 1 cup of the tea or 3 to 4 droppersful of the tincture two or three times daily.

- **Nettle leaf** is high in minerals, and herbalists believe that it nourishes the blood. Drink 1 to 2 cups of the tea two or three times daily.

- **Dong quai root** strengthens the blood, according to several thousands of years of experience by practitioners of Traditional Chinese Medicine. Drink 1 cup of the tea or 2 tablets or droppersful of the tincture two or three times daily.

**Lifestyle and dietary considerations:** To help prevent anemia, your diet should be balanced and wholesome, contain adequate protein, and focus on iron-containing foods, such as leafy greens (also a rich source of folate), nuts and seeds, raisins, apricots, and other dried fruits. For nonvegetarians, beef is an option.
Anorexia (Loss of Appetite)

More than 50 percent of Americans are overweight. If you are among them, you might wish for less desire for rich foods, yet to those with anorexia, or loss of appetite, the opposite is true. Anorexia is a symptom that can accompany a wide range of metabolic disorders, infections, gastrointestinal problems such as parasites, and is a common drug side effect. Anorexia nervosa is a concerning health problem, most frequently found in teenage and young adult women.

Supplements with scientific support:

- **Gentian root** has a bitter flavor that can really get your juices flowing. Liquid extracts of gentian root increase the production of hydrochloric acid and other digestive enzymes, improving your appetite and assimilation of nutrients. Millions of Europeans value bitter “tonics” after age 40, and the tonics are often served in restaurants.

Other supplement recommendations:

- **B-complex vitamins** may help stimulate the appetite. Take 50 to 100 mg daily before meals.

- **Artichoke leaf** stimulates bile and improves digestion. Take 1 to 2 droppersful of the tincture before meals.

- **Ginger root** stimulates and warms the digestive system. Drink 1 cup of the tea or take 2 capsules of the powder around mealtimes.

Lifestyle and dietary considerations: Eat mostly lightly steamed or cooked vegetables, well-cooked grains, and legumes. Avoid foods that irritate or upset your system. We recommend adding savory herbs and spices to your food to encourage appetite and good digestion. Pass the mustard, pickles, and pepper.
Anxiety (Panic Disorder)

One of the most psychologically painful experiences, anxiety is a state of irritability, agitation, and a feeling of dread, often accompanied by rapid heart rate, insomnia, and other symptoms. Anxiety may be caused by emotional factors, such as pronounced or hidden fears and phobias, unresolved inner conflicts, and hormonal imbalances. Unfortunately, along with a heightened sense of energy and enthusiasm for work, caffeine and sugar often stimulate your nervous system, leading to anxiety.

**Medical treatment:** Physicians and psychiatrists commonly prescribe anti-anxiety drugs like Buspar; the sedative benzodiazepines Xanax, Valium, and Ativan; serotonin reuptake inhibitors (SRIs) like Paxil, Prozac, and Zoloft; or other psychoactive drugs.

**Supplements with scientific support:**

- **B-complex vitamins** regulate and support the nervous system function. Follow manufacturer’s label directions, but a typical dosage is 50 mg twice daily.

- **Niacinamide** has a calming effect at a dosage of 1,000 mg daily.

- **Calcium** commonly has a tranquilizing effect. Take 1,000 to 2,000 mg daily.

- **Magnesium** has a tranquilizing effect. Take 500 to 1,000 mg daily.

- **Nicotinamide**, taken daily, has anti-anxiety effects. Take 300 mg twice a day.

- **Inositol** decreases the incidence of panic attacks. Take 12 g per day.

**Other supplement recommendations:**
herited 5-HTP (5-hydroxy tryptophan) helps with sleep. Take 50 to 100 mg at bedtime.

If you experience muscle weakness or other unpleasant symptoms, discontinue use of 5-HTP and consult with your practitioner.

Kava root has a mentally and physically relaxing effect. Take 1 or 2 tablets, capsules, or droppersful of extract.

California poppy root eases anxiety and nervousness. Take 2 to 4 droppersful of the tincture three or four times daily.

Valerian allays anxiousness and calms nerves. Take 1/2 teaspoon of the tincture in a little water three or four times daily, or 1 to 2 capsules at bedtime.

Lifestyle and dietary considerations: Incorporate daily relaxation methods, such as deep breathing, meditation, stretching, and walking in the woods. Avoid stimulants like coffee, tea, and cola drinks. Strenuous physical activity can help you burn off tension, and it benefits your cardiovascular system.

Arteriosclerosis

Arteriosclerosis develops silently, for years, without you even knowing. Inside your body, many of your small and large blood vessels are thickening and stiffening. Atherosclerosis is a form of arteriosclerosis that affects mainly the medium-sized and large arteries and their branches. Atherosclerosis, the major cause of cardiovascular disease, occurs as a build-up of fatty deposits of plaque on and in the blood vessel walls. Plaque is composed of oxidized low-density lipoproteins, cholesterol, calcium, platelets, and smooth muscle cells, and fibrous tissue. These deposits stick out inside the blood vessel, thereby hindering blood flow to your tissues and often leading to clot formation.
The disease process begins in childhood and progresses throughout life. Symptoms can appear quite suddenly after the disease is very progressed. Even arteries that are 80 percent blocked can still deliver enough blood for your tissues to function. Heart attacks, strokes, and kidney disease are among the consequences of atherosclerosis.

**Medical treatment:** Conventional treatment is directed to preventing and slowing the progression of the disease and treating the unfortunate consequences. Diet, cholesterol-lowering drugs, blood-pressure-lowering drugs, aspirin, exercise, smoking cessation, and vitamin E are accepted treatments. Doctors resort to surgery, including bypass surgery, and angioplasty when the process is so advanced that it seriously slows blood flow.

**Supplements with scientific support:**

- **Vitamin E** decreases oxidation of fatty acids, lowers LDL levels, and lowers heart attack risk. Take 200 to 400 IU per day.
- **Vitamin C** is an important antioxidant that helps vitamin E work longer. Take 1 to 4 g per day.
- **Vitamin B-12** lowers homocysteine levels. High homocysteine is associated with increased heart disease. Take 100 to 1,000 mcg daily.
- **Folic acid** lowers homocysteine levels. Take 400 to 800 mcg per day.
- **Vitamin B-6** lowers homocysteine levels. Take 50 to 100 mg per day.
- **Omega-3 fatty acids** from fish oil can lower heart disease risk. Eating fish may be the healthiest way to get omega-3 fatty acids. Take 1,500 mg to 3g per day.
- **Carnitine** or **propionylcarnitine** may improve lipid profiles and slow progression of atherosclerosis, and it improves exercise capacity. Take 1 g per day.
Taurine may improve lipid profiles and slow the formation of plaque. Take 1 g to 2 per day.

Vitamin B-3 (niacin) helps lower total cholesterol and raise protective high-density lipoproteins. Take 100 to 250 mg of time-release niacin daily.

Olive oil, like other monounsaturated oils, is associated with lower levels of cardiovascular disease. Use in place of saturated oil or fat in cooking.

Garlic thins the blood and lowers cholesterol. Take 4 pearls of an odor-controlled garlic supplement daily.

Other supplement recommendations:

CoQ-10 may help prevent oxidation of low-density lipoproteins. Take 100 mg per day.

Magnesium at adequate levels reduces the hard deposits of calcium in plaque. The required daily dosage for adults is 350 mg, and for therapeutic use up to 600 or 700 mg daily.

Ginkgo leaf has antioxidant properties. Take one 60 mg tablet of the standardized extract two or three times daily.

Green tea extract (Camellia sinensis) is a great way to ease into the slow lane. The slow lane doesn’t mean that you won’t get anything done — you can get as much done, but you may take time to enjoy it more. Green tea does have plenty of caffeine, but it also has major antioxidant and cardiovascular-protective benefits. Take 1 to 2 capsules daily of the extract.

Lifestyle and dietary considerations: Diet is a major risk factor for atherosclerosis. We recommend the Heart Healthy Diet of wholesome, mostly vegetarian foods, especially low in saturated and hydrogenated fats, but including adequate amounts of fish oils from supplements or eating oily fish a few times a week. You can also include some monounsaturated fats from olive oil, or cold-pressed, organic canola oil. Flaxseed oil is also beneficial but must be used unheated. Several
studies have shown that eating raw nuts and avocados also lowers cholesterol.

Smoking is also a major risk factor. If you want to greatly reduce your risk of dying before your life is over, don’t smoke; and quit if you do already. Lack of exercise is another major risk factor. Remember, a rolling stone gathers no plaque. If you’re not rolling, start a regular exercise program.

Pay attention to high blood pressure. Arteriosclerosis contributes in a major way because your vessels lose their elasticity. High blood pressure also increases your risk of heart attacks, strokes, and kidney disease.

Other important risk factors include diabetes and obesity. Make sure to balance blood sugar levels and maintain a healthy weight with a good diet and exercise.

Stress stimulates your metabolism, thereby increasing subtle inflammation throughout your body, including your blood vessels. Scientists say that inflammation may be at the root of heart disease, because the plaque is “baked,” in a manner of speaking, onto your vessel walls. If heart disease is in your family, you want to listen closely to your body and learn how to take the best care of your heart and blood vessels. Visualize your heart beating tirelessly throughout your life, working hard to bring all the good things your cells and tissues need to keep you healthy. Your heart deserves the best support possible for its efforts.

Arthritis, Rheumatoid

Arthritis is caused by a process similar to heart disease — inflammation gone haywire. Many of the same dietary and health habits that factor
into heart disease apply to arthritis: overcooked fats, poor fat choices, too much sugar, stimulants, and stress. Sound like your life? You could join the millions of people who deal with stiffness and pain daily for the rest of your life. Of course, aspirin, acetaminophen, and other anti-inflammatory drugs reduce pain and soreness, but they also stress out your liver and stomach.

The inflamed joints of rheumatoid arthritis (RA) are caused by the body’s immune system mistakenly attacking its own tissues, especially the linings of the synovial joints, the cushioning sacs that line the joints. Recent research suggests that this immune miscommunication is associated with infection by a type of bacteria called mycoplasma. If a family member has RA, your chance of developing the disease is increased. The first symptoms often include aching in small joints of the hands, feet or wrist on both sides of the body. The elbows, shoulders, knees, hips, and cervical spine may be affected, too. Development of pain and morning stiffness is typical.

Although you feel pain and stiffness in your joints, RA is really a systemic disease (affecting the whole body), manifesting primarily as painful, swollen, red joints, but in some people, many parts of the body, including the heart, lungs, nerves, blood vessels, and eyes, may also become damaged. Tiredness, weakness, and a low-grade fever may occur. Women are afflicted three times more often than men, usually between the ages of 20 and 50. Native Americans are especially susceptible. A few people seem to recover completely after a single initial attack. For most, however, it’s a lifelong disease that either waxes and wanes with flare-ups and remissions or progressively worsens. RA may eventually cause joint deformation and loss of mobility.

**Medical treatment:** A comprehensive approach is directed at quelling the inflammation, subduing the pain, and maintaining function. Physical therapy, exercise regimes, and rest are important aspects of
treatment. Early aggressive treatment seems to help prevent the disease from becoming as severe in the future. A variety of painkilling and anti-inflammatory drugs, such as aspirin and acetaminophen, are the mainstays of treatment. If these don’t work, caregivers turn to more powerful drugs called disease-modifying anti-rheumatic drugs. Newer treatments involve immune-modulating drugs. A newly approved drug, Etancerpt, blocks the action of an inflammation-promoting immune factor that your body overproduces. Though effective for many, this drug does not help everyone. In advanced and severe cases, various types of surgery may be used to improve function, correct deformities, or replace joints. Counseling and support groups are helpful.

**Supplements with scientific support:** In RA cases, response to drug treatments and supplements vary greatly from person to person. The following supplements provide varying relief for some people and are worth trying before drugs, along with better diet and health habits for your particular needs.

- **Multivitamins** may be just the balance you need. We recommend a full-spectrum supplement including 50 mg B-6, 800 mcg folic acid, 30 mcg zinc, 1,000 mg calcium, 500 mg magnesium, and 2 mg copper.

- **Vitamin E** provides some pain relief and may have some anti-inflammatory effect. Take 400 to 800 IU.

- **Selenium** helps reduce inflammation. Take 100 to 200 mcg per day.

- **Vitamin C** has some anti-inflammatory and antioxidant properties. Tends to be low in RA sufferers. Take 2 to 4 g per day.

- **Omega-3 fatty acids** (fish oil) may reduce inflammation. Are associated with improvement and decrease in mediators of inflammation in some people. Take 1,500 mg per day.

**Other supplement recommendations:**
Feverfew reduces inflammation. Take 1 to 3 droppersful of the tincture once or twice daily, or 2 capsules of the powder or standardized extract daily.

Evening primrose oil reduces inflammation. Take two 500 mg capsules daily.

DHEA deficiency is associated with a risk of developing rheumatoid arthritis. Experiments are ongoing to determine the value of supplementation with DHEA. Take 25 to 50 mg per day in the morning.

Ginger improves circulation. Take 2 capsules of the powder or 2 to 4 droppersful of the tincture two or three times daily.

Turmeric has anti-inflammatory properties. Take 1 to 4 droppersful of the tincture three or four times daily.

Lifestyle and dietary considerations: Include plenty of fresh fruits and vegetables in your diet, because they are loaded with natural antioxidants. Rheumatoid arthritis patients often eat too little fiber and too much fat. Increase fiber intake and decrease fat calories to 20 to 30 percent of your diet. Diets with 10 percent fat calories may be harmful. Many health practitioners suspect that specific food allergies are an important factor in RA, but just how much is not known.

We recommend a visit to your natural health care practitioner for a complete cleansing program. (You can also see Chapter 2 for more information on the detox and allergy-elimination diet, which may be helpful for RA.)

Massage and hydrotherapy that includes alternating hot and cold pack applications to sore and inflamed joints often provide some symptomatic relief. Yoga, tai chi, low-impact aerobics, water exercises, and swimming provide relief to many patients.

Asthma
Asthma is on the rise in most developed countries, and is most commonly the result of a complex allergic response, associated with varying degrees of hyper-reactivity and chronic inflammation of the airways. It’s like having a rash on the linings of your bronchial tubes and lungs. This leads to spasm of the airway muscles, remodeling and thickening of the airway walls, and excessive inflammatory mucus secretion, all of which obstruct airflow. Asthma sufferers develop wheezing, a tight chest, and difficulty breathing. Asthma is most frequently caused by allergic reactions to a number of substances, including dust mite and cockroach excretions, and cat and other animal dander allergens.

Any number of environmental irritants may aggravate asthma. The long list of triggering factors includes viral respiratory infections, cigarette and other smoke, chemical fumes, air pollution, cold air, exercise, and (rarely) by ingested substances like sulfites, aspirin, or certain foods. Emotional stress, contrary to traditional belief, is not often the most significant factor, although constant stress is likely to affect your immune response. Family history and allergic predisposition are associated with increased incidence of asthma. Exposure to high levels of allergens in infancy, especially dust mites, and exposure to tobacco smoke both in the womb and as an infant, combined with a genetic susceptibility, increase the chances of developing asthma.

**Medical treatment:**

The current medical approach includes the following:

- Decrease airway reactivity and inflammation with inhaled or oral steroids or other anti-inflammatory drugs, such as cromolyn, oral leukotriene inhibitors, or antihistamines
- Decrease bronchial constriction and dilate the airways with inhaled or oral beta agonists or theophylline, a stimulant
- Avoidance of allergens such as molds, pollen, dust mite feces,
cat dander, and foods like eggs and peanuts

- Immunotherapy shots to decrease reactions to speech allergens

Researchers are actively looking for more effective treatments for asthma, and some new drugs may help relieve symptoms. Some of the newest drugs inhibit or block enzymes and cell communication molecules, such as thromboxane, involved in the inflammatory pathway. Others include monoclonal antibodies to neutralize the patient’s reactive antibodies, and monoclonal antibodies to neutralize messenger and attachment molecules involved in the inflammatory response.

**Supplements with scientific support:**

- **Magnesium** decreases smooth muscle spasms, reducing bronchial spasms and wheezing. Low dietary intake is associated with increased bronchial reactivity. Take 500 to 1,000 mg.

- **Vitamin C** may reduce bronchial spasms. Low dietary intake is associated with increased bronchial reactivity in some people. Higher intake is associated with decreased exercise-induced airway reactivity. Studies are inconclusive, and more research is needed. Take 2 to 4 plus g per day.

- **Vitamin B-6** may be necessary to supplement your diet if you are taking theophylline treatment. Studies show positive and negative effects, but B-6 is worth a try. Take 50 to 100 mg two to three times daily.

  Doses of B-6 higher than 200 mg per day for extended periods are not safe.

- **Vitamin B-12** may help in the small subset of patients with sulfite sensitivity. Take 1,500 mg per day.

- **Zinc:** Low intake has been associated with both seasonal allergy and asthma. Take 15 to 30 mg daily.

- **Manganese:** Low dietary intake is associated with increased
bronchial reactivity. Take 5 to 10 mg a day.

- **Calcium** should be taken by anyone using steroids, inhaled or oral, to help prevent bone loss. Take 800 to 1,200 mg per day.

- **Bioflavonoids** decrease inflammatory response. It’s best to get them in the diet along with antioxidants. Quercetin, an especially effective flavonoid from onions, helps reduce levels of histamine, a powerful inflammatory chemical in the body. Take 200 to 300 mg three times daily.

- **Vitamin E** decreases damage from inflammation. It’s best obtained in the diet whenever possible. Take 400 to 800 IU per day as a supplement.

- **Selenium** minimizes damage from inflammation. Decreased serum selenium and activity of selenium-dependent antioxidant enzymes is found in asthma patients. Some clinical improvement has been seen with supplementation, though not all airways and lung functions are improved. Take 200 to 300 mcg.

- **Omega-3 fatty acids** help decrease allergic responses in some people. Increase omega-3 fatty acids from fish and fish oils and decrease omega-6 fatty acids from sunflower and safflower oils and margarine. Take 1,500 mg to 4 g of EPA, 500 mg to 2.5 g of DHA, and 500 mg of gamma linolenic acid (GLA from evening primrose or borage seed oil).

**Other supplement recommendations:**

- **Lobelia** (*Lobelia inflata*) reduces spasms in the respiratory tract. Take 20 to 40 drops of the tincture three times daily.

- **Marshmallow root** reduces lung inflammation. Drink 1 cup of the tea two or three times daily.

- **Siberian ginseng** regulates and strengthens adrenals. Take 2 droppersful to 1 teaspoon of the tincture three or four times daily.

- **Grindelia and yerba santa tea or tincture** help keep your airways clear and reduce bronchial spasms. Use these two spicy, mucus-cutting herbs regularly. Drink 1 cup of the tea or take 15 to
30 drops of the tincture three times daily.

**Lifestyle and dietary considerations:** The ideal diet is low in fat and sodium and rich in antioxidant fresh fruits and vegetables. Researchers find an association between higher fat intake and increased incidence of asthma. Many practitioners recommend a decreased intake of high linoleic acid fats, such as corn oil, safflower oil, and margarine. There is also an association between salt intake and asthma severity in men. We recommend reducing the possibility of food allergies by regularly using bitter herbs like gentian and artichoke leaf extracts, or digestive enzyme supplements like bromelain or papain, and betaine hydrochloride.

**Attention Deficit Disorder (ADD)**

You know what it’s like to be in a hurry — to race around getting ready for work when you’re late. But imagine being in a constant state of hyperactivity. Kids with ADD or ADHD (attention deficit hyperactivity disorder) often can’t hold their attention on tasks long enough to complete them. Ironically, it’s no coincidence that the condition is called “attention” deficit disorder, because the quality of attention from parents in today’s world where both often work can be important factor.

Kids with ADD suffer from a brain chemistry dysfunction, affecting qualities of focus and cognition, moods, and activity levels. Scientists believe that the left and right brain hemispheres, as well as the visual fields in kids with ADD, do not work in harmony. These kids often do not see clearly the information presented to them; they may misread or read very slowly and switch words or numbers, creating confusion and misconceptions in their minds.
**Medical treatment:** Physicians prescribe medical treatments like the stimulant drugs Ritalin and other related amphetamines. We recommend having a practitioner assess a child’s digestive function to develop a complete program to clear yeast overgrowth, bacterial imbalance, or parasitic infections, where necessary. Removing the irritating toxins produced by these microbes often positively influences brain activity and neurochemistry, helping to bring about a calmer mood and better focus. Some holistic practitioners can evaluate urinary organic acids to establish the type of microbial imbalance in the body.

**Supplements with scientific support:**

- **Magnesium/calcium:** A small study with 50 children showed that magnesium supplementation improved symptoms of ADD when given at the dose of 3 mg per pound of body weight per day.

**Other supplement recommendations:** Natural practitioners are trying many new nutritional programs for reducing symptoms of ADD. Here are a few of the most effective:

- **B-complex vitamins** normalize the nervous system function. Take 50 mg three times daily.

- **Complete vitamin/mineral supplements** should contain all the necessary vitamins, minerals, and other cofactors (feasible to put in pills) that a child needs for perfect nutrition. We recommend 1 or 2 tablets daily. Keep in mind that some nutrients must come from the diet.

  The ideal nutritional program for kids is always fresh fruits, vegetables, juices, and whole grains, nuts, and seeds. “Complete” nutritional supplements are essential for making sure kids get all the many nutrients they need for proper growth, development, and mental function. If a child is not getting an excellent diet, we recommend supplementing based on the quality of his or her diet.

- **Phosphatidyl choline** helps support nerve function. Take 3 to 5 g per day of high phosphatidyl choline lecithin in capsules or
liquid form.

🌿 **Gamma-linolenic acid (GLA)**, from borage seed oil, evening primrose oil, or flax seeds, has high essential fatty acid (EFA) levels, which research has found to be low in hyperactive children. Take 1,000 to 2,000 mg to 1 g per day of GLA. We recommend adding 1 teaspoon of freshly ground flax seed (which is super high in EFA levels) to cereal or other foods. Kids often enjoy the nutty taste.

🌿 **DHA (docosahexanoic acid)**, found in fish and fish oils, can improve memory and brain function in some kids. For normal maintenance, the suggested dose it 300 to 500 mg, and much of this can come from eating oily fish. Take 1,000 to 2,000 mg of DHA twice daily for therapeutic use.

🌿 **Amino acid supplement** containing GABA, taurine, and glycine may reduce hyperactivity. Amino acids are essential for the body to produce neurotransmitters, the chemicals that facilitate all brain and nervous system activity. Follow manufacturer’s label instructions.

🌿 **California poppy root** helps reduce hyperactivity. Take 2 to 4 droppersful of the tincture three or four times daily.

🌿 **Passion flower** (*Passiflora incarnata*) eases anxiety and insomnia. Take 2 to 4 droppersful of the tincture three or four times daily.

**Lifestyle and dietary considerations:** A child’s diet can help create calm and focus. A wholesome, natural foods diet is the best to follow. Foods high in tryptophan, such as turkey and almond milk, are important, because tryptophan is a precursor for serotonin, which influences moods and sleep. Food allergies may also play a role in ADD. Here’s a checklist of possible problem foods for parents to monitor and eliminate from the diet on a trial basis:

🌿 **Dairy products**, especially factory-farmed cow dairy products (with growth hormones, steroids, and antibiotics)
- **Wheat products** such as breads, cookies, and pasta
- **Processed foods** (with dyes or food colorings, preservatives such as monosodium glutamate, artificial flavorings, and other additives)
- **Refined sugar products** such as candy, cookies, and soda
- **Red meat**, except organic or wild meat once or twice a week in small amounts
- **Chocolate and caffeine**, including caffeinated soda drinks

In one study, more than half of the subjects exhibited a marked improvement in behavior when these substances were eliminated.

Researchers link abnormally high lead levels in the hair of children with symptoms of ADD and ADHD. Your nutritionist or health practitioner can order a heavy metal hair analysis for your child, and develop a total program to help remove the lead from body tissues.

**Back Pain and Strain**

Back pains are a real pain in the neck. More than 80 percent of the population suffer from back problems at some time in their lives. Some scientists think that incomplete evolution to an upright posture is a major factor. Muscle sprain/strain injuries and injuries to other structures of the back, such as ligaments, tendons, and vertebral disks, are the most common cause of back pain. Many other conditions can contribute to back pain, including arthritis, vertebral disk breakdown, internal organ or vascular disease, and bone disorders. Back pain can be eased and often eliminated in nearly every case, as long as you faithfully follow a complete program of exercise, good diet, herbs, and supplements. We recommend avoiding surgery except under the direst circumstances.
Medical treatment: After ruling out other more serious disorders, practitioners often prescribe rest to eliminate stress to the muscles and reduce muscle spasms. Use ice or cold packs to decrease acute pain, and if necessary add alternating heat to relax muscle spasms. Painkillers, anti-inflammatories and muscle relaxants taken for a few days or a week right after symptoms appear provide relief from pain and muscle spasms. Most caregivers now recognize the importance of early mobilization of the muscles by using stretching and strengthening exercises. Extended bed rest may be harmful, whereas physical therapy, manipulation, and massage are quite valuable. Some practitioners resort to surgery, though comparison studies show that conservative therapy is usually as effective as most surgeries, with fewer side effects.

Back pain not caused by muscle strain is treated appropriately to the condition causing it. See other entries in this section on pain and on individual underlying disorders that may be a cause of back pain — that is, rheumatoid arthritis, osteoarthritis, osteoporosis, and so on.

Supplements with scientific support:

✔️ Vitamin C reduces muscle soreness and has anti-inflammatory and healing properties. Take 2 to 4 g per day.

Recent studies show that acupuncture is effective for relief of back pain. See your acupuncturist for regular treatments.

Other supplement recommendations: Many B vitamins enhance the action of pain medications, thus allowing you to take a smaller and safer dose.

✔️ Vitamin B-6 may enhance pain medication. Take 50 mg per day.

✔️ Vitamin B-1 may enhance pain medication. Take 50 mg per day.

✔️ Vitamin B-12 may enhance pain medication. Take 250 mcg
per day.

- **Vitamin B-2** may decrease neuromuscular irritability. Take 50 mg per day.

- **Glucosamine** may help in connective tissue repair. Take 1,500 mg per day.

- **Magnesium** may provide some relief from back pain by relaxing muscles and spasms. Take 500 to 750 mg per day in two to three individual doses.

- **Calcium** relaxes muscles and spasms. Take 800 to 1,200 mg per day.

- **Ginger root** improves blood circulation, removes waste products, and relieves pain. Apply hot compresses of the tea two or three times daily.

- **St. John’s wort oil** reduces inflammation. Apply liberally three times daily.

Chronic lower back pain is often related to protein deficiency, or a hormonal imbalance, called Kidney Yin Deficiency in Traditional Chinese Medicine. See your practitioner for a total program.

**Lifestyle and dietary considerations:** Adequate protein in the diet is important to optimize muscle repair. Lack of fitness often contributes to back problems. Stretching and strengthening exercises can be both curative and preventive. Lower back extension exercises using resistance are particularly protective. Yoga practice, which also incorporates breathing and de-stressing therapy, can be very helpful. Alternate hot and cold compresses (three minutes hot, one minute cold) increase blood flow to the area and can be quite beneficial to healing. Obesity is also often a contributing factor. Occupations that involve lifting are a risk factor, as is a sedentary lifestyle. It is important to follow safe, stress minimizing lifting methods and to stay physically fit. Smoking is also a risk factor for lower back pain.
Avoid lots of congesting foods, like processed grains (breads, crackers, and other baked goods), heavy sauces and cheese, and big meals. The Detox Diet described in Chapter 2 can be helpful at reducing inflammation and pain. Many people with lower back pain can be helped by cleansing the colon and losing weight.

**Bad Breath**

It’s not sexy, and it’s not even healthy, but bad breath, or halitosis, affects more than half the population. About 90 percent may result from oral bacterial disease (such as gingivitis and periodontitis) and the accumulation of bacteria on the back of the tongue. The bacteria break down food and debris to form odiferous sulfurous gases and nitrogenous compounds with wonderful names like putrescine and cadaverine — not very inviting, is it? Not infrequently, the presence of gut bacteria in the mouth contributes to the problem. Researchers think sinusitis, tonsillitis, and other similar conditions cause another 8 percent of halitosis cases. More rarely, gut bacteria, lower respiratory infections, or systemic diseases like diabetes may contribute to the problem. Scientists who study these things find that people are poor judges of their own mouth odor: Some offenders are unaware that they have bad breath, while others believe themselves to have a problem when there is none.

**Medical treatment:** Good oral hygiene with regular brushing and flossing is essential. Daily debridement, a fancy word for scraping, of the back of the tongue is considered especially important. Brushing soon after eating fish, meat, or milk is thought to remove protein that otherwise would become a breeding ground for bacteria. Having your teeth cleaned regularly and having them scaled and planed to remove plaque and reduce pockets where food may become impacted can reduce halitosis.
Supplements with scientific support: Supplements to enhance immune activity and reduce bacteria and plaque are often effective.

🌿 **Vitamin C** helps the gums heal. Take 2 to 4 g per day.

🌿 **Zinc-containing mouthwashes** are especially effective at reducing plaque in the mouth. Use as directed.

🌿 **Bloodroot**, a small plant found in the eastern United States, is a natural aid against bad breath. Mouthwashes and toothpastes containing extracts of bloodroot are proven to reduce plaque buildup and kill bacteria.

Other supplement recommendations: These are the supplements we find most effective for a sweet breath:

🌿 **Peppermint oil** (*Mentha piperita*) freshens the breath. Use 1 drop on the tongue and swish around your mouth.

🌿 **Chlorophyll tablets or liquid** may turn your tongue green for a while, but they do work to sweeten the breath. Chlorophyll is nature’s deodorizer.

🌿 **Digestive enzymes and hydrochloric acid** help digest heavier protein foods, and thus reduce protein breakdown by bacteria, a process which releases unpleasant odors.

🌿 **Probiotics** (healthy bacteria) help balance the microflora in your colon, thereby reducing odor-generating fermentation. Take up to 9 billion organisms a day of acidophilus (about 3 capsules) with meals.

Lifestyle and dietary considerations: Drink lots of water (especially with fresh lemon), which helps to maintain sufficient saliva flow. Smoking contributes to mouth odor and increases the risk of gum disease. Eating fresh fruits and vegetables, especially lots of greens and chlorophyll-based foods, can freshen your breath. Likewise, chewing on a clove, a cardamom seed, or parsley, or sucking on orange peel or ginger are all time-honored ways to refresh your breath.
Benign Prostatic Hypertrophy (BPH, or Enlarged Prostate)

A common problem in men as they age, enlarged prostate probably occurs more frequently in modern times because of a diet heavier in saturated fat and meat with added hormones and antibiotics, and a lack of activity due to the shift from a farming culture to the business culture of sitting all day. Stress tightens up the pelvic area, restricting blood flow and reducing nutrition and waste removal from prostate tissues. Prostate enlargement often affects urination and sexual function and creates discomfort and pain in the prostatic and rectal areas.

Medical treatment: Physicians prescribe drugs and various kinds or surgery or heat treatments to shrink the prostate or destroy prostate tissue and improve urine flow. In our experience, drug treatments and surgery should only be a last resort if a complete natural program, followed faithfully for at least six months, is not effective. Many men experience impotence and urinary incontinence after surgery.

Supplements with scientific support: Saw palmetto, the small orange fruit of a scrub palm native to northern Florida, is the most frequently recommended supplement today, but other supplements are also proven to be effective.

- **Zinc** helps reduce size of the prostate and other symptoms of BPH. Take 50 mg three times daily for two months; then 50 to 100 mg daily.

- **Essential fatty acids** are important inflammation-fighters that help diminish residual urine in some men. Take 2 capsules of flax seed oil and fish oil with DHA (docosahexaenoic acid) twice daily.

- **Saw palmetto extract** tones the urinary system, increases urinary flow, and reduces pain and inflammation in many men. Our first choice for supplementation. Take 160 mg twice daily.
Nettle root extract, often blended with saw palmetto, can help relieve symptoms of BPH.

Pygeum extract (Pygeum africanum) reduces hyper-reactivity of the bladder and decreases inflammation. We recommend trying saw palmetto and nettle root extracts first, because pygeum is endangered in some parts of its native Africa. Take 200 mg daily.

Other supplement recommendations: These two supplements are often recommended to reduce inflammation.

Vitamin E reduces inflammation. One study found 50 mg per day of alpha-tocopherol (the usual form of vitamin E) reduces the incidence of prostate cancer.

Pumpkin seed oil contains sterols that help reduce symptoms of BPH. Take 2 or 3 capsules, twice daily.

Lifestyle and dietary considerations: We recommend a mostly vegetarian diet: Reduce or avoid red meats and poultry, cheese and whole milk products, and irritating stimulants such as alcohol and caffeine. Instead, eat plenty of high-fiber fresh fruits and vegetables, soups and salads, and whole grains and legumes for a happier prostate. Seeds and nuts like pumpkin seeds, walnuts, or flax seeds provide positive nutrition for prostate health — enjoy some regularly!

Bladder Infection (Cystitis)

It’s not a pleasant feeling to be sitting on an inflamed bladder, and standing or walking is not much better. Bladder infections are among the most common infections, affecting millions of women each year. An infection of the urinary bladder occurs when a microbe, usually a bacteria, gets into the bladder and multiplies, producing substances that irritate the internal lining, causing pain and pressure, increased urinary frequency, and pain with urination. This problem occurs much more
commonly in women than men because the urethra is very short in women. Bacteria from the bowel colonize the area just below the opening to the sexual organs, so regular hygiene is important. An acute case of cystitis can even cause blood in the urine, termed hemorrhagic cystitis. Drinking fluids every day and emptying the bladder regularly is important to prevent bladder infections. People with diabetes are more prone to cystitis because of increased sugar in the urine.

**Medical treatment:** Physicians regularly prescribe antibiotics, but recent studies show that you may experience symptoms like burning and pain with urination longer if you take antibiotics than if you don’t. It is helpful to test the urine to find the exact bacteria and test the sensitivity of antibiotics to discover which ones work best to kill the bacteria. Bladder procedures, such as urethra dilation, are used for recurrent infections when the problem is structural.

**Supplements with scientific support:** Immune-supportive nutrients are effective for assisting your body to eliminate urinary infections.

- **Vitamin C** supports the immune function and helps fight infection. Take 1,000 mg two or three times daily.

- **Vitamin A** supports the immune function and helps fight infection. A minimum of 10,000 IU daily.

- **Zinc** decreases susceptibility to infection. Take 30 to 60 mg daily.

- **Cranberry extract** acidifies the urine and prevents bacteria from adhering to bladder walls. Take 16 ounces of unsweetened juice or 400 mg of extract one to three times daily.

**Other supplement recommendations:** Herbal remedies are safe and soothing to your urinary tract, and they help reduce bacteria counts.

- **Marshmallow root** (*Althea officinalis*) reduces inflammation and irritation. Drink 1 cup of the tea several times daily. Follow
the label directions for capsules or tincture.

✔️ **Uva ursi leaf** *(Arctostaphylos uva ursi)* acts as a urinary antiseptic. Drink 1 cup of the tea or take 2 to 3 droppersful of the tincture three or four times daily.

✔️ **Pipsissewa herb** *(Chimpaphila umbellata)* soothes the urinary tract and reduces bacteria. Take 1 teaspoon of the tincture in a little water, or 1 cup of the tea, three times daily.

✔️ **Echinacea** stimulates the immune function and reduces infection. Take 2 to 4 droppersful of the tincture, or 1 cup of tea, three or four times daily for up to 10 days during an infection.

**Lifestyle and dietary considerations:** Eat foods at room temperature or warmer and avoid hot, spicy foods, cold foods and drinks, processed sugar, and caffeine. Include soothing foods such as barley and flaxseeds.

Regular massage of the lower pelvic area invigorates circulation to the bladder area, helping remove waste products.

**Breast Cancer**

We decided that it was most important for our readers to have information on ways to prevent common cancers rather than focus on the complex and aggressive treatments of Western technological care, which primarily utilizes surgery, radiation, and very toxic chemotherapy. In natural healing and modern medicine practice alike, practitioners promote early detection of cancer because treatment is often more effective. But prevention is much better because once a tumor is detected in your body, it has likely been growing for a number of years. At this stage, the processes and imbalances that went into creating the cancer are well-established, and treatment is much less likely to succeed. Here are some important healthy habits to develop if you want to avoid cancer in the first place. Remember that current
statistics show that one out of three people will have cancer some time in their life — an eye-opening statistic.

✔ Cultivate a positive attitude toward life.

✔ Consistently practice learning and following the most healthful and high-nutrient diet for your individual needs.

✔ Actively avoid foods that are full of chemicals, such as preservatives, pesticides, and herbicides.

✔ Keep well rested. Take time to nap and get six to eight hours of refreshing sleep.

✔ Practice regular exercise to keep trim, slim, and fit. Exercise increases waste removal and increases immune circulation and nutrients to all the cells, tissues, and organs of your body. Exercise also improves your mood, and can lead to mild euphoria when practiced regularly — any questions?

✔ Remember to practice regular stress management like meditation, visualization, yoga, qi gong, tai chi, massage, acupuncture, or conscious deep breathing every day.

Breast cancer has a familial pattern and risk association; researchers have even discovered a gene that may increase a woman’s risk appreciably if she carries this gene. However, lifestyle patterns of diet, stress, and emotions also seem to run in families, which may add or modify the genetic risk.

**Medical treatment:** Doctors usually recommend surgery, which fortunately is less aggressive and mutilating than it was in past decades. Lumpectomies (just the lump and not the breast) are more commonly recommended today, along with chemotherapy and radiation. Tamoxifen and Ramoxifen are common protective and therapeutic drugs that block estrogen’s effect on receptor sites of breast tissue. Using these drugs to prevent cancer in women is more questionable.

Breast cancer is still increasing, and prevention is still the best solution of all. No better option exists than simply learning as much as possible
about diet and health early in life, and then practicing healthy-breast habits daily. Chemotherapy, radiation, and surgery are only partially successful to remove the cancer and extend life. Natural therapy options are rising to fill a great need. Learn as much as you can about your options and decide what is right for you based on your beliefs and needs. Remember that women who take responsibility to direct their treatment and health programs live longest and have the best quality of life. We know inspiring women who have taught us the meaning of health as they quit stressful jobs, ordered their lives and relationships, and cleaned house of personal issues.

We recommend developing a relationship with a natural practitioner or two, along with an enlightened physician who is willing to embrace integrative medicine.

**Supplements with scientific support:** Medicinal mushrooms help support your immune system and help your body prevent cancer formation.

- **Shiitake** boosts the immune system. Take 3 or 4 tablets or capsules of a concentrated extract twice daily. The best dose is from 4 to 6 g of an extract a day, with meals. Cooking with shiitake mushrooms is a delicious way to get your immune support and enjoy it too.

- **Maitake** (*Grifola frondosa*) supports the immune system. Take 1 teaspoon or 3 capsules or tablets of an extract, twice daily with meals.

- **Turkey tails** (*Coriolus versicolor*) are a potent immune strengthener. Take 3 tablets three times daily.

**Other supplement recommendations:** These recommendations include supplements that protect you from developing breast cancer or for treatment support for someone with breast cancer.

- **Selenium** has antioxidant properties. Take 50 to 200 mcg daily.
Vitamin C is associated with a reduced risk of cancer. Take 2 to 4 g daily.

Vitamin E acts as a free radical scavenger. Take 400 to 800 IU daily.

Beta-carotene helps eliminate DNA-damaging free radicals. Take 10,000 to 15,000 IU daily.

CoQ-10 is important for cell regulation and immune support. Low levels have been found in breast cancer patients. Take 30 to 60 mg twice daily.

Blood-purifying herbs enhance elimination of irritating toxins, and possibly carcinogens, from your body, and are known to reduce cancer risk in animals. These herbs include red clover tops, dandelion root, and burdock root. Use them in tea form, capsules, tablets, or tinctures daily.

Phytoestrogens protect against cancer. Studies involving thousands all over the world show that people who eat higher amounts of foods that contain natural plant estrogen regulators (called phytoestrogens) have less cancer and live longer. We strongly recommend adding foods and supplements to your diet that contain these potent protectors, including all soy products, all beans (such as aduki, lentils, black beans, and pinto beans), freshly ground flax seed (sprinkle 1 tablespoon on food), and all whole grains, nuts, and seeds. You can also take 1 tablet twice daily of a phytoestrogen supplement with soy, red clover, or kudzu containing genistein and daidzein.

Lifestyle and dietary considerations: A diet to prevent breast cancer is similar to all cancer-prevention diets. A high-fiber diet appears to provide some protection. Choose organic foods and pure water whenever possible. Avoid excess fats and junky fats (partly hydrogenated oils and heated polyunsaturated fats). Follow a vegetarian diet consisting of mostly natural foods, fruits and vegetables, whole grains and legumes, nuts and seeds, seaweeds, and some animal foods if desired, such as fish, free-range and organically fed poultry, some
organic eggs, and low-fat organic dairy products. Occasional cleansing and detoxifying programs every few months reduce toxic irritants in the body and help you focus you on a generally cleaner diet.

The National Academy of Sciences estimates that 60 percent of women’s cancers — and 40 percent of men’s — are related to nutritional factors. From our experience, this figure is too low, and is probably around two-thirds for men and women.

Breast Disease (Benign)

Cysts and fibrous masses commonly occur in women’s breasts, and are especially common in young women because of their abundant circulating estrogen. If you are a woman, genetics, hormone stimulation, and health habits such as caffeine intake are all important influences on your breast health. With breast disease, breasts can have one focal benign tumor, or multiple small to medium cysts that often increase in size and number premenstrually, with stress, or with caffeine use. Often when women with fibrocystic breasts reduce caffeine intake — from coffee, black teas, cola drinks, and chocolate — they experience an improvement in the breast lumps.

Medical treatment: Modern medicine has few specific medical treatments for fibrocystic breast conditions other than hormone rebalancing and watching breast lumps with physical exams and mammograms. Physicians may order a biopsy to examine any suspicious lumps. One form of a fibrocystic-like condition is known to be precancerous, so this should be watched more carefully.

Supplements with scientific support: The potent antioxidant effects of vitamin E can help reduce discomfort of breast cysts.

✔ Vitamin E relieves symptoms and softens and reduces cysts. Take 400 to 800 IU daily.
Other supplement recommendations: Phytoestrogens help regulate estrogen stimulation in your breasts, and castor oil acts as an effective lymphatic cleanser.

- **Beta-carotene** acts as an antioxidant to help prevent cancer. Naturopathic physicians recommend 150,000 units daily.

- **Flaxseed oil** contains essential fatty acids and has a cancer protective effect. It helps stabilize cell membranes and structures. Take 5 or 6 capsules or sprinkle 2 to 3 teaspoons on food. Better yet, sprinkle a tablespoon of freshly ground flaxseed on food every day.

- **Iodine** can help reduce cyst formation. Take 250 mcg daily.

- **Castor oil** (*Palma christi*): Place castor oil packs over the affected area three or four times a week for an hour; continue for one to six months. To prepare a castor oil pack, saturate a flannel cloth with the oil and heat it in a 350-degree oven until warm. Place it over the breast and cover it with a plastic bag, a small towel, and a hot water bottle to keep it warm.

- **Red clover and dandelion** (*Taraxacum officinale*) both improve breast health when used regularly. Red clover is also rich in phytoestrogens. Drink 2 cups of tea, or take capsules or tablets daily, following label instructions.

Lifestyle and dietary considerations: Your best diet for breast health is low in refined sugar, added fats, and processed foods; avoid caffeine altogether; and keep chemical exposure low because many pesticides in foods and water can interfere with the activity of your hormones. A diet lower in animal foods that are high in hormones and chemicals is also an excellent choice. Soy-based foods, such as tofu and tempeh, may be supportive of healthy breast tissue and general female hormonal balance because of their phytoestrogens.

**Bronchitis**
Inflammation of the bronchi, the major air-carrying tubes in the lungs, is called bronchitis. It can be either acute or chronic. Acute bronchitis is usually the direct result of an infection with a virus or bacteria. Chronic bronchitis often involves irritation from smoke, pollutants, or allergies. Poor elimination of bacteria, caused by breakdown of the mucus-producing mechanisms of the lungs, leads to infection. Poor oral hygiene can contribute to risk of infection. Cigarette smoking is by far the major risk factor for bronchitis. Exposure to air pollutants can also contribute. Poor nutrition when you are in the uterus combined with respiratory infection in childhood increase the risk of future chronic bronchitis. Breastfeeding is protective against childhood respiratory infection. Forty to 60 percent of chronic bronchitis in children exposed to environmental tobacco smoke is directly attributable to the smoke exposure. A low vegetable intake in your diet can increase your risk of bronchitis. Chronic bronchitis frequently leads to chronic obstructive pulmonary disease (COPD), the fourth leading cause of death. Chronic lung disease is associated with being poorly nourished and underweight and having reduced physical strength.

**Medical treatment:** Acute bronchitis is treated with rest, fluids, bronchial dilators, and antibiotics. Chronic bronchitis is treated by strongly encouraging you to quit smoking if you do. Physicians also prescribe bronchial dilators, anti-inflammatory steroids, expectorants, and other supportive measures, antibiotics, and nutritional support.

**Supplements with scientific support:** Studies show some benefit from eating foods high in beta-carotene and vitamin E, but show no benefit from taking beta-carotene or vitamin E as supplements.

- **Vitamin C** helps the immune system. Patients taking vitamin C do better than those not taking it. Take 2 to 4 g per day.

- **Vitamin A** protects those who are deficient in this vitamin from respiratory infection. Take 5,000 IU per day, up to 100,000 to 150,000 IU for several days, under the direction of a physician.
\textbf{Zinc} decreases bronchitis symptoms in patients with improved zinc to copper ratios. Take 30 mg per day.

**Other supplement recommendations:** Immune enhancers, antibacterial herbs, and soothing herbs are an important part of a natural treatment program.

\textbf{Selenium} can help with recovery from viral respiratory infections. Take 100 to 200 mg per day.

\textbf{NAC} (Nacetylcysteine) acts as a powerful antioxidant, protecting the lungs from damage. Take 250 to 500 mg daily.

\textbf{Echinacea leaf and root} stimulates the immune system to eliminate infections. Take 2 droppersful to 1 teaspoon of the tincture three or four times daily during the acute phase. (You can also take 1 to 2 capsules.)

\textbf{Usnea lichen} (Usnea species) increases expectoration and contains strong antibacterial chemicals. Take 1 dropperful three or four times daily.

\textbf{Mullein leaf} tones the lungs and has expectorant and soothing qualities. Drink 1 cup of the tea three or four times daily.

**Lifestyle and dietary considerations:** Avoid inhaling all types of smoke and any inhaled chemical irritants. Your diet should be healthy and wholesome to help heal your body. Add garlic, cayenne, horseradish, and ginger to your foods, or health drinks to accelerate healing and promote expectoration. A detox diet for several weeks to a month is definitely helpful. Pack your plate with nutrient-rich foods, and make sure to add superfoods like spirulina and nutritional yeast.

**Bruising**

A blow to your skin can damage underlying blood vessels, causing varying amounts of bleeding into the tissues, forming a dark bruise. A
bruise is often red or blue at first, changing to yellow as it heals. Trauma can also cause non-visible bruising in other tissues, such as the muscles, bones, brain, and other internal organs. Susceptibility to bruising varies greatly, depending on nutrition, heredity, and your present health.

Very easy bruising may be a sign of drug side effects or nutritional deficiency. Other less likely causes include illnesses like cancer, malnutrition, anemia, or bleeding disorders.

**Medical treatment:** A physician or natural practitioner can carefully diagnose the cause of bruising and determine the appropriate treatment.

**Supplements with scientific support:** Vitamin C and bioflavonoids strengthen the walls of your vessels and make them less likely to become damaged.

- **Vitamin C:** Inadequate vitamin C can cause a susceptibility to bruising. Take 1 to 4 g per day.

- **Bioflavonoids** can help strengthen blood vessels. Take 1 to 2 g per day.

- **Vitamin K** facilitates normal blood clotting. Take 100 to 200 mcg, which you can get from alfalfa tablets.

**Other supplement recommendations:** Hawthorn and ginkgo supplements are potent vessel-strengtheners, reducing fragility when used regularly. Horse chestnut strengthens veins.

- **Hawthorn flowers and leaf** strengthens the blood vessels. Take 2 to 3 droppersful two or three times daily.

- **Horse chestnut bark and seeds** increase blood circulation and tone veins. Take 5 to 20 drops of tincture three times daily internally and apply the cream externally.

- **Ginkgo leaf** prevents leaking from the vessels. Take 1 dropperful of tincture or one 60 mg tablet of standardized extract
two or three times daily.

**Lifestyle and dietary considerations:** Eat a wholesome diet full of lots of fruit and vegetables, especially leafy greens that naturally contain high levels of vitamin C and flavonoids to strengthen vessels, plus whole grains and legumes, and some nuts and seeds, ideally organic and raw (they can also be lightly roasted).

## Burns

Heat from fires, chemicals, the sun, heated objects or fluids, and electricity can all cause tissue-damaging burns. The severity of burns varies with the location, extent, and depth of injury. You should seek medical attention for any burns other than superficial burns and burns greater than about three inches in diameter. (The treatment recommendations for burns can also be applied to sunburns.)

**Medical Treatment:** Physicians often tell you to keep the burn clean, and apply an antibacterial cream like Sulfadiazine or Neosporin. Treatment of deeper, more extensive burns requires more involved wound care to promote healing and prevent scarring, to balance metabolic disturbances, to prevent infection, and to support nutrition.

**Other supplement recommendations:** Few supplements are proven in large studies to reduce healing time and scarring after burns, but here are the most effective herbal remedies to soothe and promote healing.

- **Calendula cream** (*Calendula officinalis*) soothes the skin and accelerates healing. Apply to affected area three or four times daily.

- **St. John’s wort oil** reduces inflammation and pain. Apply to affected area three or four times daily.

- **Lavender oil** (*Lavandula officinalis*) reduces pain and
swelling, deters infection, and prevents scarring. Apply a few drops to the affected area three or four times daily.

- **Aloe vera gel** reduces pain and swelling, deters infection, and prevents scarring. Apply to the affected area several times daily.

- **Vitamin E** has antioxidant capabilities and accelerates healing. Open a gel cap and squeeze the vitamin E oil onto the burn several times daily.

**Lifestyle and dietary considerations:** For any burn, immediately immerse the burned area in cold water for at least a minute, and then use the healing product of your choice.

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**Bursitis**

In many places in the body where skin, muscle, tendons, or ligaments run over a bony area near a joint, small, cushioning, fluid-filled sacs called bursa develop. Inflammation of these sacs is called bursitis. Trauma and overuse of a joint are the most common causes of bursitis. The walls of the sacs are made of the same synovial tissue found in many of the body’s joints and filled with the same synovial fluid found in joints. This makes bursa susceptible to the same conditions that affect these joints, such as rheumatoid arthritis or infectious arthritis. Swelling and pain in a bursa can restrict the function of your muscles and joints.

**Medical treatment:** Apply ice to acutely inflamed spots. Physicians recommend rest, steroid and anesthetic injections, pain killers, anti-inflammatories, physical therapy, manipulation, and range of motion exercises.

**Supplements with scientific support:** See also “Arthritis, Rheumatoid,” for other anti-inflammatory and pain-reducing herbs and supplements.
Vitamin C has anti-inflammatory properties. Take 2 to 4 g per day.

Other supplement recommendations:

Ginger root alleviates pain and inflammation. Apply a compress of the hot tea two or three times daily.

Meadowsweet herb (*Filipendula ulmaria*) alleviates pain and inflammation. Rub the tincture over affected spots as a liniment, and take 1 teaspoon of the liquid in a little water, three times daily.

Lifestyle and dietary considerations: A diet high in antioxidant-rich leafy greens, vegetables, and fruits helps bursitis from developing in the first place.

Caffeine Addiction/Detoxification

Caffeine is the most widely used psychoactive drug in the world and the only drug commonly added to foods. It is one of a class of chemical compounds called methylxanthines, which includes theophylline, found in black tea, and theobromine, found in chocolate. Their effects are similar to those of caffeine. Though generally considered relatively benign in moderate doses, caffeine may increase your risk of developing some diseases. Pregnant women should not drink coffee or use other caffeine or methylxanthine-containing substances because of a slightly increased rate of miscarriage and low-birth-weight babies. Caffeine has the same effects on the developing baby as it does on the mom, including raising the heart rate and slightly elevating the blood pressure. In studies on animals, caffeine has been shown to cause birth defects. Caffeine aggravates high blood pressure, contributes to osteoporosis, is associated at low levels with increased risk of colon
cancer, and can cause insomnia, anxiety, heart palpitations, and shortened menstrual cycles.

Though caffeine does not strongly act upon those areas of the brain affected by more powerfully addictive drugs, it is considered mildly addictive and does produce some physical dependence. That grumpy, headachy feeling you get after a day or two without your morning coffee fix is due to caffeine withdrawal. Withdrawal symptoms vary but often include headache, irritability, sleepiness, fatigue, depression, impaired performance, and disturbed concentration, or “alertness deficit disorder.”

Withdrawal symptoms, which can last for a week, are generally not severe enough to warrant medical attention. Aspirin or other analgesics are the remedies of choice to treat headaches. For a small number of people, depression can be so severe as to require treatment.

**Supplements with scientific support:** The side effects of withdrawal are usually mild and short-lived, so it is probably best not to go from one dependency to another. The amino acid *phenylalanine* acts as a mood elevator, however, and has been suggested as a temporary substitute to ease the effects of caffeine cessation. Take 500 mg several times daily. Phenylalanine should also not be used by pregnant women, those with high blood pressure or diabetes, or anyone susceptible to anxiety attacks.

**Other supplement recommendations:** Calming herbs help ease the headaches and feelings of restlessness. Blood-purifying herbs assist your body in eliminating caffeine.

- **Kava** relieves muscle tension and nervousness. Take 2 capsules or tablets several times daily.
- **California poppy** helps reduce nervousness and promotes good sleep. Take 3 or 4 droppersful of the liquid tincture in a little
B-complex vitamins help your nervous system adjust to caffeine withdrawal. Take 1 or 2 capsules (50 mg) daily.

A few spoonfuls of nutritional yeast and/or spirulina are excellent nervous system support foods that help reduce symptoms of caffeine withdrawal.

Lifestyle and dietary considerations: Regular exercise and a healthy lifestyle are better mood elevators and performance enhancers than caffeine.

If you can’t quite give up caffeine cold-turkey, but are concerned about the possible adverse effects on your health of coffee, black tea, or soft drinks, try switching to green tea. Green tea does have moderate amounts of caffeine, but it offers significant health benefits as a potent antioxidant, benefiting your cardiovascular system.

Cancer

Cancer occurs when tissue cells undergo genetic alteration, lose or free themselves from normal growth inhibitions, and proliferate uncontrollably with no useful function in the body. Benign tumors remain localized. Malignant tumors are able to aggressively invade adjacent normal tissue and often spread to other parts of the body. The term cancer usually indicates a malignant growth. Major causes of cancer include tobacco use, poor diet, exposure to environmental carcinogens, such as asbestos, aflatoxins, radiation (including sunlight), viruses, parasites, plant alkaloids, and manmade pollutants. A genetic predisposition exists for some cancers. Researchers have identified dozens of different types of cancer involving different cell types.

Medical treatment: The mainstays of cancer treatment are surgery to
remove cancerous tissue, chemotherapy to poison and kill the cancer, and radiation, also used to kill cancerous cells.

**Supplements with scientific support:** Little evidence exists that supplements work at all, or work as well as a diet rich in vitamins and antioxidants, in the prevention of most types of cancer. Evidence does exist that supplementation improves the outcome for cancer patients. The following list is offered as complementary treatment for those already being treated for cancer, not as a cancer prevention regime.

- **Vitamin C** has antioxidant activity. Take 2 to 4 g daily.
- **Vitamin E mixed tocopherols** scavenge free radicals. Take 400 to 800 IU daily.
- **Selenium** acts as an antioxidant and protects cell membranes. Take 200 mcg daily. (Benefits improve when you take selenium with vitamin E.)
- **Calcium** is especially effective for colon cancer. Take in 1,000 mg per day in you diet or supplements.
- **Shiitake mushroom** both prevents and treats cancer by enhancing immunity. Take 2 or 3 capsules or tablets two or three times daily of an extract of the mycelium, called LEM. See your health care practitioner for more specific instructions for shiitake use. Shiitake extracts are approved drugs for use in cancer therapy in Japan.
- **Reishi mushroom** tones and strengthens the immune system. Take two to four 500 mg capsules two or three times daily.
- **Maitake mushroom** stimulates the immune system, benefiting both the prevention and treatment of cancer. Follow the label instructions, or see your health care practitioner for an increased therapeutic dose, up to 4 to 6 g a day.

**Other supplement recommendations:**

- **Other medicinal mushrooms:** Researchers and practitioners
from Asia are using many other mushroom extracts as immune support during cancer treatment with chemo, radiation and other methods. These include Coriolus (*Trametes versicolor*), Split-gill (*Schizophyllum commune*) and others. Many of these new and effective extracts are available through your practitioner.

![Red clover flowers](https://via.placeholder.com/150) cleanses the blood and contains phytoestrogens. Drink 1 cup of the tea of 1/2 teaspoon tincture two or three times daily.

![Grape seed and skin extract](https://via.placeholder.com/150): Grapes have a long history of use for cancer in European cultures. Researchers recently discovered one of the most potent cancer-fighters ever from grape skins — resveratrol. Take 2 or 3 capsules or tablets, twice daily, or 6 to 8 ounces of fresh grape juice.

**Lifestyle and dietary considerations:** Smoking is the leading preventable cause of cancer. It is responsible for a third or more of all cancers. Poor diet is also a risk factor for almost a third of cancers. A diet high in fruits, vegetables, grains, and legumes is protective against many types of cancer. Lycopene from tomatoes and tomato products is associated with reduced risk of some cancers. High meat intake; high refined carbohydrate (sugar) consumption; high salt, dairy, egg, and cholesterol intake; and nitrosamines in preserved meats all have associations with different types of cancer. Obesity and high calorie intake are both associated with increased cancer. There is a reduced risk of cancer with increased levels of physical activity.

**Carpal Tunnel Syndrome**

Compression of a major nerve (the median nerve) between tendons and ligaments in the wrist can lead to carpal tunnel syndrome. Symptoms include numbness, tingling, weakness, and pain in the hand and wrist. Pain sometimes runs up the forearm. Repetitive motion involving flexion of the wrist — as in hammering, filleting fish, sweeping
barcodes over a grocery store checkout sensor, computer work, and typing — may lead to carpal tunnel syndrome. Carpal tunnel syndrome can also be associated with obesity, hypothyroidism, pituitary disorders, pregnancy, and fluid retention.

Medical treatment: Splinting and resting the wrist are the primary treatments. You may find relief of symptoms by adjusting your working habits and methods of performing tasks and by taking frequent breaks. Exercises and stretching often help. Doctors often recommend painkilling and anti-inflammatory drugs. Surgery to relieve the compression on the nerve is often effective. Treatment is important, as untreated carpal tunnel syndrome sometimes leads to permanent disability.

Supplements with scientific support:

- **Vitamin B-6**: Low levels have been associated with symptoms in some studies. High doses of B-6 may cause fluid loss and decreased sensitivity to pain. Take 50 mg twice daily or up to 100 mg three times daily. Remember that vitamin B-6 is toxic when taken in larger doses than we recommend for extended periods.

- **Vitamin C** has anti-inflammatory properties. Low blood levels have been associated with symptoms. Take 2 to 3 g daily.

Other supplement recommendations:

- **Papain and bromelain** from pineapple and papaya help you digest proteins and starches. Take 1 or 2 tablets before meals.

- **Licorice** in the form of DGL (deglycyrrhizinised licorice) helps reduce inflammation. Take 1 or 2 capsules morning and evening with meals.

- **Fatty acids** (flaxseed oil, GLA, DHA) help reduce inflammation. Take 500 mg to 1 g two or three times daily of evening primrose oil, or 1,500 mg of EPA and 500 mg to 2.5 g of DHA, twice daily.
**Lifestyle and dietary considerations:** Consciously developing healthy work habits to reduce the possibility of injury is your best bet. Wrist support, frequent breaks, frequent stretching, and massage all help increase blood circulation and reduce inflammation and injury.

**Cataracts**

Free radical damage due to sun exposure or eating cooked oils can cause cataracts, a gradual clouding of the lens of the eye. It’s the most common cause of loss of vision, especially as you age. Diabetes, corticosteroid use, injury, or infection may also contribute to cataract formation.

**Medical treatment:** Surgical removal of the clouded lens is the usual treatment.

**Supplements with scientific support:**

- **Vitamin E** helps prevent free radical damage and cataracts and may even improve vision. Take 400 IU mixed tocopherols daily.
- **Vitamin C** helps prevent free radical damage. Take 2 to 4 g daily.

**Other supplement recommendations:**

- **Bilberry** fruit extract is an excellent antioxidant for the eyes. Take 80 to 160 mg three times daily.

**Lifestyle and dietary considerations:** Include plenty of fresh fruits and vegetables in the diet. Don’t smoke because smoking increases the formation of compounds and the deposit of heavy metals that may form cataracts. Smokers have an increased incidence of cataracts.
Cervical Dysplasia

Cervical dysplasia is the presence of abnormal cells on the uterine cervix. Dysplastic cells are the earliest type of change seen during a potential progression to cancer. Mild dysplasia may improve without progressing to cancer. There is generally an association with infection by certain strains of human papillomavirus (HPV), or cervical warts. Mild dysplasia may not require removal of the abnormal cells but should be watched for signs of progression.

Medical treatment: Doctors treat worsening dysplasia and higher grades of dysplasia with various methods of removal.

Supplements with scientific support:

- **Vitamin C**: Cervical dysplasia is associated with insufficient intake of vitamin C. Take 2 to 4 g daily.

- **Folic acid**: Deficiency is associated with increased incidence of cervical dysplasia. Some claims are made of reversing dysplasia with doses of 10 to 30 mg per day. Studies have been done that refute this claim. Using high doses should be attempted only under a doctor’s supervision and with careful follow up. Take 800 mg daily.

- **Vitamin A**: Deficiency is associated with increased risk of cervical dysplasia. Take 5,000 IU per day.

- **Vitamin B-2**: Deficiency is associated with increased risk of cervical dysplasia. Take 50 mg per day.

- **Selenium**: Low levels are associated with increased risk of cervical dysplasia. Take 200 mcg per day.

Other supplement recommendations:

- **Herbal formula**, consisting of 2 parts vitex berries, 1 part burdock root, 1 part red clover blossoms, and 1 part astragalus,
regulates hormones, cleanses and protects the liver, cleanses the blood, and boosts the immune system. Drink 2 to 3 cups daily before meals. You can also buy individual tinctures and blend them together. Take 3 or 4 droppersful several times daily.

**Lifestyle and dietary considerations:** Cervical cancer is the second most common cancer in women worldwide. PAP tests have greatly reduced deaths from cervical cancer. Screening for cervical cancer is one of the most effective preventive tests done.

Virtually all cases of cervical cancer involve infection with a type of human papillomavirus, which causes genital warts. You have an increasing risk of cervical cancer with increased numbers of sexual partners. Smoking is also a significant risk factor for cervical cancer.

Avoid fried foods, caffeine-containing foods and drinks, and refined sugar.

**Colds**

Colds are the most common upper respiratory infection, and up to 200 individual viruses can cause colds. Symptoms include stuffy nose, sore throat, cough, headache, sinusitis, muscle ache, and low-grade fever. Transmission is usually from contact with secretions from an infected person.

**Medical treatment:** No medical treatments can cure the common cold. Treatments for cold symptoms include antihistamines, decongestants, expectorants, analgesics, and cough suppressants. Rest and fluids are the mainstay of treatment.

**Supplements with scientific support:**

- **Zinc acetate lozenges** with high zinc ion availability may
shorten the symptoms of a cold. Other zinc lozenges may be of no benefit. Take 30 mg per day.

![Vitamin C](image) reduces cold symptoms and decreases the length of symptoms. One study suggests that vitamin C intake has no effect on whether or not you will get a cold except possibly a slight protection for male school children. Take 1 to 4 g per day.

![Vitamin A](image) helps prevent respiratory infections when you have a dietary deficiency, which is common only if you avoid fresh fruits and vegetables. Take 5,000 IU daily.

**Other supplement recommendations:**

![Echinacea root and leaf](image) stimulates the immune system. Can help prevent colds and shorten the duration of symptoms. Take 2 droppersful to 1 teaspoon of the tincture three or four times daily.

![Yarrow (Achillea millefolium) and elder flowers](image) increases sweating and elimination. Take 1 cup of the tea blend three times daily.

![Yerba santa leaf and osha root](image) stimulate the respiratory tract and helps eliminate mucus. Take 1 cup of the tea blend three times daily.

![Lemon balm (Melissa officinalis)](image) has an antiviral effect. Take 1 cup tea or 2 droppersful tincture two or three times daily.

**Lifestyle and dietary considerations:** Eat warming foods such as garlic, onions, cayenne, and ginger when you have a cold to help get rid of toxins and provide an antiviral effect. Take a hot bath with ginger tea added at the onset of a cold to help reduce unpleasant symptoms.

Frequent hand-washing and avoiding putting your hands to your face are important to avoid transmission of the virus. Smoking, poor sleep quality, alcohol abstinence, low dietary intake of vitamin C, elevated catecholamine levels, and being introverted have all been associated with greater susceptibility to colds. The more social ties one has, the
less the susceptibility to colds. So go out and make more friends (but
don’t get too close if they have colds).

Conjunctivitis or Pinkeye

Viral or bacterial infections or allergies can cause inflammation of the
conjunctiva, the membrane that lines the inner eyelid and covers most
of the surface of the eye. Irritation from smoke, dust, or airborne
pollutants may also be involved. Blood vessels in the white parts of the
eyes become engorged making the eyes bloodshot. Pus discharge may
form and cause the eyelids to stick together, and burning and itching
usually results. Infectious conjunctivitis is commonly called pinkeye,
and it is highly contagious.

Medical treatment: Treatment depends on the cause. Eye antibiotics
are used for bacterial infections. Viral infections of the conjunctiva
often accompany upper respiratory infections and will run their course.
Soothing eye drops or a cool moist towel help control symptoms.
Herpes virus infections in the eye can be dangerous. Avoidance of
allergens such as cat dander and dust, and use of antihistamine,
corticosteroid, or soothing eye drops help relieve allergic conjunctivitis.
Corticosteroids like cortisone should not be used until infection is ruled
out because they carry the danger of causing glaucoma with continued
use.

Supplements with scientific support:

✔️ Vitamin A is sometimes low in cases of chronic conjunctivitis.
   Take 5,000 IU daily.

Other supplement recommendations:

✔️ Golden seal, a mucous membrane anti-inflammatory, is the
   most effective herbal treatment. Use the carefully strained tea, or a
dropperful of the liquid tincture in 2 ounces of water as an eyewash several times daily.

✔ **Eyebright** (*Euphrasia officinalis*) is a mucous membrane anti-inflammatory. Take 2 to 4 droppersful three or four times daily internally and apply a compress of the tea several times daily.

✔ **Echinacea** stimulates the immune system. Take 2 droppersful to 1 teaspoon of the tincture three or four times daily.

**Lifestyle and dietary considerations:** Grated potato makes a soothing, cooling poultice for the eye. Remember how easily pinkeye can spread, and practice sensible hygiene.

**Constipation**

Constipation is sluggish or stuck bowels or, in more proper terms, decreased or difficult defecation. You have to define constipation relative to your normal personal bowel habits. Any change from normal is significant. Frequency of bowel movements varies greatly from person to person. The medical literature describes normal as ranging from once every four or five days (it’s true!) to three times a day. Constipation often comes on with advancing age, usually because of sedentary habits. Constipation is often a relatively benign result of poor lifestyle and dietary habits but can be an indication of more serious disease. Intermittent but progressive constipation is a sign of bowel cancer. Low fluid intake, lack of bulk in the diet, low activity, stress, anxiety, infections, and some drugs can cause constipation.

**Medical treatment:** Treatment depends on the cause. Increased fiber in the diet, increased fluid intake, and increased activity level are the first line of therapy. Laxatives or cathartics like senna should be used only short-term, so that a dependency does not develop. Enemas are sometimes used to treat acute constipation.
Supplements with scientific support:

- **Vitamin C** may have a laxative effect. Take 5 to 10 g per day.

- **Psyllium seed** is a stool bulker that normalizes bowel movements. Soak 1/2 to 2 teaspoons in 1 cup of warm water or juice and drink once or twice daily. Drink plenty of water throughout the day.

- **Cascara (Cascara sagrada)** moistens the bowels and relieves constipation. Take 2 to 4 capsules of the powdered herb or 1 to 3 droppersful of the tincture in a little water before bedtime.

Other supplement recommendations:

- **Flaxseed** eases constipation. Grind up 1 tablespoon of flaxseed and sprinkle it on salads or cereal. Chew well and drink plenty of water afterward.

Lifestyle and dietary considerations: Make sure to include a variety of fruits and vegetables in your diet and avoid processed food. Prunes, often taken to relieve constipation, are very high in antioxidants. Exercise is a good preventive measure.

Cough

A cough is an expulsion reflex of the respiratory system. Coughs are triggered by multiple diseases and conditions, although colds and allergies are the most common causes. Coughing is usually a beneficial mechanism that is helping to clear sputum or foreign objects from the lungs. Suppressing a cough can be counterproductive, because holding mucus can allow bacteria to build up and increase susceptibility to an infection. Coughs are a symptom, not a disease. Determine the underlying cause with a physician or other experienced practitioner. Occasionally, coughs — especially chronic coughs — are a sign of
serious conditions, such as tuberculosis, pneumonia, and lung cancer.

**Medical treatment:** Coughs are treated with cough suppressants and antibiotics.

**Supplements with scientific support:** See also colds, asthma, and allergy.

- **Vitamin C** is associated with decreased coughing and increased lung function. Take 2 to 4 g per day.

- **Vitamin E (natural mixed tocopherols)** may especially help when the cough is productive, meaning coughs that bring up a lot of gunk. Take 400 to 800 IU.

- **Vitamin A** may decrease respiratory infections, especially in people deficient in dietary vitamin A. Take 5,000 IU.

**Other supplement recommendations:**

- **Herbal cough syrups:** These products, containing loquat leaf (*Eriobotrya japonica*), horehound leaf (*Marrubium vulgare*), and/or wild cherry bark, are available in natural food stores. Follow the label directions for dosage.

- **Marshmallow root, licorice root, and mullein leaf** have an expectorant and soothing action on the mucous membranes of the respiratory tract. These herbs can be made into a tea singly or in combination to treat dry coughs. Drink 1 cup tea two or three times daily.

- **Grindelia flowers (*Grindela squarrosa*), yerba santa leaf, and wild cherry bark** teas or tinctures are beneficial for moist coughs. Drink 1 cup of the tea two or three times daily. Or mix 1 teaspoon each of the individual tinctures in 1 cup water and drink 1/2 cup two or three times daily.

**Lifestyle and dietary considerations:** While you have a cough, eat soups and other cooked, warming foods with plenty of cayenne, ginger,
garlic, and horseradish to help cut the mucus. Taking a steam bath or inhaling steam can be helpful.

Cuts

Cuts and abrasions are a natural consequence of life. Your general health; the size, depth, and location of a wound; and adequacy of blood supply are important factors that determine healing time.

Medical treatment: Large cuts may require repair with surgical glue, staples, or stitches. Most small cuts and abrasions heal well without any intervention. Antibiotic dressings may be used if there is a threat of infection. Bandages offer protection from trauma and contamination.

Supplements with scientific support:

- **Zinc** plays an important role in wound healing. Take 30 to 60 mg per day.
- **Vitamin C** is important to formation of collagen. Take 2 g per day.
- **Vitamin A** is important to the healing of skin and other tissues. Take 5,000 IU per day.

Other supplement recommendations:

- **Cayenne** stops bleeding. Sprinkle this hot remedy on the affected area two or three times daily.
- **Tea tree oil** has antimicrobial properties. Apply a drop to the affected area two or three times daily.
- **Calendula cream** promotes healing. Apply a healing herbal salve containing calendula, St. John’s wort, lavender, or echinacea two or three times daily.
Lifestyle and dietary considerations: Adequate protein is essential to the healing process. Increase protein intake when healing significant wounds, including post-surgical wounds. A multiple vitamin mineral supplement will help to assure adequate nutritional intake to promote successful and rapid healing.

Dandruff

Dandruff is a form of seborrheic dermatitis affecting the scalp. It causes varying degrees of unpleasant scaling and flaking. Genetic and environmental factors determine its severity, but a weakened immune response is also a factor. Symptoms are associated with overgrowth of normal yeast organisms in your scalp. A buildup of phlegm in your system, an oily scalp, poor diet, and stress are all possible factors.

Medical treatment: Selenium-containing or antifungal shampoos are often prescribed to help control dandruff.

Supplements with scientific support:

- **Vitamin E** (natural mixed tocopherols) is often at low levels in the blood of people with dandruff. Take 400 IU.

- **Selenium** is required for an important antioxidant enzyme that can reduce inflammation, and is often low in people with dandruff. Take 100 to 200 mcg.

- **Flax oil** contains the essential fatty acids linoleic and linolenic acid, a deficiency of which can lead to dermatitis. Add 1 to 2 tablespoons or 4 to 8 capsules to your diet daily.

- **Vitamin B-6** has shown improvement of facial seborrhea when applied topically in an ointment.

Other supplement recommendations:
Blood purifiers: Herbalists recommend blood purifiers like red clover and burdock root to help control dandruff. Take 1 cup of the tea made by simmering a teaspoon of the herbs for 30 minutes, or 3 to 5 droppersful of the tincture two or three times daily.

Lifestyle and dietary considerations: Make a hair rinse with a mixture of 1/4 cup vinegar and 3 cups rosemary tea, work it into the scalp, and leave it on for 5 to 10 minutes to increase circulation to the scalp. Or add 2 to 3 drops of tea tree oil, which is strongly antifungal, to your shampoo.

Depression

Feelings of being down, blue, sad, discouraged, or even mournful can all be appropriate responses to many of the realities of everyday life. Often all that is needed is time, reassurance, and a hug to pick yourself up and carry on with a more optimistic attitude. Major depression occurs when feelings of despair and hopelessness become so debilitating that functioning normally is difficult or impossible. Such a level of depression often includes thoughts of suicide. Hormonal imbalances, disease states, drugs, and nutritional deficits can all be contributing factors. People who suffer from depression often have recurring problems.

Medical treatment: Major depression is usually treated with drugs that enhance neurotransmitter levels and with psychotherapy. Rational-cognitive therapy with a trained listener is considered the most effective form of psychotherapy.

Supplements with scientific support:

Folate: Low levels are commonly associated with increased incidence of depression. Take 800 mcg daily.
St John’s wort: St. John’s wort is often effective for mild to moderate depression. Take 300 mg three times per day.

DHEA: Has antidepressant properties, but needs more study. Scientists have not drawn a clear conclusion about long-term safety. Take 50 mg per day.

Omega-3 fatty acids (from fish oil): Depression has been correlated with low intake, especially of DHA (docosahexaenoic acid from fish oil). Take 1,500 mg to 3 g of omega-3 fatty acids daily.

Other supplement recommendations:

Reishi calms the nervous system. Take 3 capsules or tablets two or three times daily.

Siberian ginseng helps you adapt to stress. Take 1 cup tea or 1/2 teaspoon tincture twice daily.

American ginseng strengthens the adrenal system. Take 3 capsules or droppersful two or three times daily.

Lifestyle and dietary considerations: Try taking baths with a few drops of lavender oil sprinkled in. A regular, comprehensive program of exercise is essential to healing.

Dermatitis

Dermatitis means literally skin (derma) inflammation (itis) and is a very general term for any type of rash or skin condition. Sometimes a doctor gives dermatitis as a diagnosis for a rash that he or she is unable to figure out. Treatment depends on the cause. Antifungals are used for fungal rashes, antibacterials for bacterial rashes, miticidals for rashes caused by mites, and so on.

Medical treatment: Various creams and lotions are used to relieve
symptoms like itching and burning. The most popular treatment for dermatitis of unknown cause is topical corticosteroids to quell the inflammation.

**Supplements with scientific support:** None

**Other supplement recommendations:**

- **Calendula or St. John’s wort cream or ointment** soothes the skin and reduces inflammation. Apply several times daily.

- **Herbal blood purifiers for skin ailments** assist your liver to cleanse your blood, perhaps helping to calm an overactive immune system. Specific herbs that herbalists recommend for dermatitis include red clover, burdock, yellow dock, and especially Oregon grape root. Make a tea by simmering 1 teaspoon of an herb mixture of equal parts of the herbs, and drink 1 cup two or three times a day, or add 4 droppersful of the individual tinctures in a little water and drink several times daily.

- **Flaxseed oil:** Take 2 capsules several times daily, or a tablespoon of the ground seeds on food, once or twice daily.

- **Folic acid** may reduce symptoms. Take up to 5 mg, twice daily under the care of your practitioner.

- **Vitamin E** may reduce symptoms. Take up to 800 IU daily.

- **Pyridoxine (vitamin B-6)** may reduce symptoms — initial worsening of symptoms for several days to a week is a positive sign. Apply a cream several times daily.

- **Digestive enzymes**, such as papain, bromelain, or betaine hydrochloride, enhance protein digestion. Some kinds of dermatitis may be due to a generalized immune response after absorbing incompletely digested proteins. Follow the manufacturer’s label instructions for the dosage of these enzymes.

**Lifestyle and dietary considerations:** Drink a 6- to 8-ounce glass of cleansing vegetable juice such as celery, parsley, cucumber, or apple
juice once or twice daily. You can add a little carrot juice for flavor and sweetness.

**Diabetes**

Diabetes occurs when the body has difficulty moving sugar from the blood into cells, thereby creating a condition of high blood sugar. Genetic and environmental factors both play a role in the development of diabetes, and there are several types. One type is *insulin-dependent diabetes*, in which insulin-producing cells have been destroyed and insulin must be taken to survive. The most common type is *non-insulin dependent diabetes*, in which various mechanisms interfere with insulin’s normal function of facilitating movement of sugar into cells. *Gestational diabetes* occurs in susceptible women during pregnancy. Certain drugs, pancreatic disease, toxins, and other diseases can also cause diabetes.

There are many consequences of diabetes, including elevated levels of atherosclerosis, heart disease, high blood pressure, problems with blood flow to tissues, neurological disease, eye disease, and kidney disease.

**Medical treatment:** Diabetes is treated with insulin and other drugs to keep blood sugar levels near normal. The many complications of diabetes require treatment as well. Ninety percent of non insulin dependent diabetes can be treated with careful attention to proper diet and exercise.

**Supplements with scientific support:**

- **Chromium-rich brewer’s yeast** may improve glucose tolerance. Take 7 g GTF-rich brewer’s yeast (containing 15 mcg chromium) daily.

- **Chromium** helps insulin binding and insulin binding to cells.
Take 200 to 400 mcg twice daily.

**Other supplement recommendations:**

- **Siberian or American ginseng** helps stabilize blood sugar and balance metabolism. Drink 1 cup of tea or take 1/2 teaspoon tincture twice daily.

- **Fenugreek seed (Trigonella foenum graecum) or huckleberry leaf** lowers blood sugar. Drink 1 cup two or three times daily.

- **Stevia (Stevia rebaudiana) (the sweet herb)** supports healthy blood sugar levels. Use several drops of the liquid extract as a no-carbohydrate sweetener for drinks and in cooking.

**Lifestyle and dietary considerations:** It is crucial that your diet be low in fat and sugar and high in fiber. Follow a regular exercise program to keep your blood sugar as stable as possible.

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**Diarrhea**

Diarrhea is an increase in the frequency of bowel movements that are soft or watery. It is a symptom of many disease conditions, and a root cause must be determined for proper treatment. Infections, stress, chemicals, drugs, inflammatory bowel diseases, malabsorption disorders, and laxatives are all included in the possibilities. Decreased water absorption and increased movement through your bowel result in diarrhea. Most diarrhea is self-limiting and requires no treatment. Diarrhea is often one of the body’s mechanisms for ridding itself of unwanted bugs or poisons and in such a situation, it may be better to let it run its course. Severe acute or prolonged diarrhea, however, can have serious, even fatal consequences especially in infants and children.

**Medical treatment:** Conventional treatment is often directed at increasing bowel tone to slow the frequency and increase the solidity of
bowel movements. Severe diarrhea may require electrolyte replacement. Vaccines against *rotavirus*, a common cause of acute diarrhea, may soon be available.

**Supplements with scientific support:**

- **Vitamin C**, in doses over 2 g, can cause diarrhea in some people. Cut back if you’re taking more than this and have loose stools.

- **Vitamin A** supplementation reduces death from diarrhea in populations where vitamin A deficiency is a problem. Take 5,000 IU per day.

- **Zinc** may help prevent infections leading to diarrhea. Take 30 mg per day.

- **Multiple vitamin and mineral supplement with potassium** helps replenish electrolytes, especially in chronic diarrhea. Follow label directions. Note that by law potassium is only available in small amounts in supplements, but you can easily get the recommended amount by regularly eating nuts, whole grains, eggs, beans, and meat.

- **Acidophilus (probiotic)** can help your body eliminate intestinal infections and relieve diarrhea. Take 2 capsules in the morning and 1 in the evening.

**Other supplement recommendations:**

- **Blackberry root** (*Rubus villosus*), an astringent and antibacterial herb, is recommended by herbalists for relieving diarrhea. Drink 1 cup of tea three times daily.

- **Black walnut hulls** (*Juglans nigra*) have an astringent action and stop diarrhea. Take 1 to 2 droppersful of the tincture three or four times daily, depending on the severity of your symptoms.

**Lifestyle and dietary considerations:** Be sure to drink plenty of water to avoid dehydration. Replenish electrolytes with vegetable miso broth,
vegetable juice, or sports drinks. Keep your diet simple — no lavish five-course dinners. Live culture yogurt or acidophilus may help to replenish gut bacteria killed by antibiotics.

**Diverticulitis**

As you age, small pockets sometimes form in weak areas in the lining of your colon, through the muscle layers. Fifty percent or more of people over 50 have diverticulosis. Occasionally bacteria or wastes cause these little sacs to become inflamed. Inflamed diverticula is diverticulitis. Pain, fever, and changes in bowel function may occur.

**Medical treatment:** Treatment includes rest, food restriction, increased fluid intake, occasionally antibiotics, and, rarely, surgery. A high-fiber diet, with plenty of whole grains and vegetables, is helpful in preventing both diverticula and diverticulitis.

**Supplements with scientific support:** None

**Other supplement recommendations:**

- **Psyllium seed:** Helps to bulk stools and prevent constipation. Mix 1 to 2 teaspoons in 1 cup of water and drink twice daily. Drink extra water throughout the day.

- **Yellow dock** helps cleanse your bowel. Take 1 cup of the tea or 3 droppersful of the tincture, three times daily

- **Oregon grape root** helps reduce the possibility of infection. Take 1 cup of the tea or 4 droppersful of the tincture in a little water.

**Lifestyle and dietary considerations:** Allow quality time for those healthy bowel movements. Postponing the inevitable increases pressure in the bowel, leading to both diverticula and diverticulitis.
Dry Skin

Dry skin can be caused by lack of sufficient moisture or lack of sufficient oils or both. Reactions to detergents, too-frequent washing, cold weather, excessive sun exposure, and aging all contribute to dry skin conditions. A few people have genetic diseases that manifest as dry skin or dry skin associated with diseases such as diabetes.

Medical treatment: Treatment includes moisturizing lotions and creams.

Supplements with scientific support:

✔️ Zinc: Dry skin in some people responds to zinc therapy. Take 30 to 60 mg per day.

Other supplement recommendations:

✔️ Lavender or rose essential oil: Add a few drops to your bath water to help moisturize your skin.

✔️ Emotient herbal creams: Look for herbal-based creams that contain soothing and moisturizing herbs like plantain, calendula, and aloe.

Lifestyle and dietary considerations: Smoking greatly accelerates the development of age-related skin problems such as dryness. Drinking water and eating high-nutrient fresh foods will support healthy skin.

Eczema

See also “Dermatitis.”

In its purest definition, eczema is synonymous with dermatitis, a general word meaning a noninfectious rash and describing symptoms
rather than a specific disease. If a doctor tells you that you have eczema, what he or she most often means is that you have *atopic eczema*, a type of allergic response that may involve a genetic defect in the regulation of a type of immune system cell called a T cell. Many atopic eczema patients are allergic to certain foods or hypersensitive to other allergens such as mites or soaps. Most children with atopic eczemas grow out of the disease during puberty.

**Medical treatment:** Numerous soothing lotions, creams, and emollients, including topical corticosteroids, are used in treatment. Antibiotics are used to treat any bacteria that infect and aggravate the skin rash. UV light treatments with and without photosensitizing agents, immune suppressants, and oral steroids are sometimes used in stubborn cases. UV light may suppress bacteria that colonize atopic dermatitis lesions and aggravate the inflammation. UV light also acts as an immunosuppressant.

**Supplements with scientific support:** None

**Other supplement recommendations:**

✔️ **Zinc** supports immune response. Take 15 mg twice daily or 30 mg in one dose.

✔️ **Beta-carotene** is a potent antioxidant, which can help support skin health. Take 10,000 to 30,000 IU daily.

✔️ **Vitamin A** is helpful for some skin ailments. Take 10,000 to 25,000 IU daily in two doses.

✔️ **Vitamin C** is an antioxidant that reduces the severity of some rashes. Take 500 to 1,000 mg two or three times daily.

✔️ **Vitamin B-6** helps with some rashes. Take 50 mg twice daily up to 100 mg three times daily.

✔️ **Gamma-linolenic acid (in borage or evening primrose oil)** helps reduce inflammation. Take 1 capsule three times daily. Or
try fish oil with DHA, or fresh-ground flax seeds with omega-3 fatty acids. Follow label directions.

- **Quercetin** is a potent antioxidant. Take 150 to 300 mg two or three times daily.

- **Milk thistle extract** supports liver function and reduces symptoms. Take 1 to 2 capsules of 50 to 100 three times daily.

- **A tea blend of herbal blood purifiers** is often recommended by herbalists to reduce skin inflammation. Drink 1 cup of tea made by simmering equal parts dandelion root, burdock root, Oregon grape root, and yellow dock root for 30 minutes.

- **Calendula or chamomile ointment or cream:** Apply externally several times daily.

**Lifestyle and dietary considerations:** Atopic patients often have allergic reactions to a variety of substances, including foods, pollens, and mites. Specific allergies vary from patient to patient, and it is important to determine what it is you are allergic to. Food allergies are more common in children. The more common offending foods include cow’s milk, peanuts, egg, wheat, corn, soy, nuts, fish, and shellfish.

## Edema

Edema is the retention of abnormal amounts of fluid in the tissues, resulting from excessive leakage of fluid from the blood vessels or decreased removal of fluid by your lymph and blood vessels. Anything, including numerous diseases, conditions, and drugs, that interferes with your normal mechanisms for maintaining fluid balance can lead to edema. Fluid buildup can occur in specific areas, or be more generalized. Edema is seen most commonly in the extremities and is frequently associated with heart, kidney, and liver disease.

**Medical treatment:** Diuretics increase urination and removal of water,
so they are often used to treat edema. Compression devices and massage are also helpful. Treatment also has to be directed to the specific cause of the fluid retention.

Supplements with scientific support:

- **Vitamin B-6** has a diuretic effect. Take 50 to 100 mg per day.
- **Calcium** helps to maintain fluid balance in premenstrual bloating. Take 800 to 1,200 mg per day.
- **Multivitamin and mineral supplement** helps maintain healthy levels when using diuretics that may lower levels of certain vitamins and minerals.

Other supplement recommendations:

- **Uva ursi** acts as a diuretic. Take 25 to 40 drops of fresh corn silk tincture two or three times daily.
- **Dandelion leaf** has a diuretic effect. Drink 1 cup of tea or take 2 or 3 capsules or 1 teaspoon of the tincture.

Lifestyle and dietary considerations: Decreasing salt intake often helps decrease water retention, and exercise and weight control usually provide additional benefits. Elevating your feet for a few minutes several times a day may provide some relief for ankle swelling. Remember that many fresh fruits and vegetables have some diuretic effect.

Endometriosis

During every menstrual cycle, in response to hormones, the tissue lining of the uterus (called the *endometrium*) grows and develops to be ready for a potential fertilized egg. If no fertilized egg happens, the tissue, including blood and blood vessels, sloughs off and is expelled.
through the cervix during menstruation. In women suffering from endometriosis, some of this inner uterine tissue somehow occurs outside the uterus and can spread even to the bowel. This misplaced tissue responds to hormonal stimulation the same way the normal tissue in your uterus does, but the body has no way of expelling the blood and dying tissue that would normally be expelled during menstruation. This cycling of endometrial tissue outside the uterus causes pain that begins before menstruation and continues through the period. It sometimes causes abnormal bleeding and often affects fertility. Researchers are implicating exposure to the environmental chemical toxin called dixon as a possible factor in the development of endometriosis.

**Medical treatment:** Hormones are used in treatment to suppress normal cycling of endometrial tissue. Laser surgery is done to remove tissue growing outside the uterus. Women no longer desiring children may opt for hysterectomy if symptoms are severe.

**Supplements with scientific support:** None

**Other supplement recommendations:**

- **Vitamin E** helps prevent tissue damage and reduce inflammation and scarring. Take 400 to 800 IU daily.
- **Vitamin C** helps prevent tissue damage. Take 2 to 5 g daily.
- **Magnesium** reduces muscle cramping. Take 500 to 750 mg daily.
- **Grape seed extract** is a potent antioxidant that helps prevent tissue damage. Take 40 to 80 mg daily.
- **Green tea extract** is a potent antioxidant. Take 1 or 2 capsules twice daily.
- **Herb formula** can be made from a combination of the following herbs: vitex, red clover, wild yam (*Dioscorea villosa*), cramp bark (*Viburnum opulus*), horsetail, red raspberry (*Rubus*
*idacus*), and motherwort. These herbs contain muscle-relaxing, hormone-balancing, and cleansing properties. Take 3 cups daily.

**Lifestyle and dietary considerations:** Exercise may help to reduce the severity of symptoms. Eat a diet with lots of phytoestrogens from soy and beans. Some sufferers experience a reduction of symptoms by eliminating caffeine consumption.

## Epilepsy

Epilepsy is a neurological disease involving uncontrolled abnormal electrical activity in the brain, leading to a loss of consciousness and seizures. What happens to a person during an attack varies depending on the location and type of problem in the brain. Most cases of epilepsy have no explanation, but many may be caused by small areas of scar tissue from injuries to the brain. Epileptic seizures range from whole body convulsions and muscular jerking to brief lapses in consciousness. Tumors, infections, drugs, toxins, head injuries, and changes in blood flow to the brain can all precipitate seizures.

**Medical treatment:** Epilepsy is commonly treated with anticonvulsant drugs. Counseling and support groups are important for healthy psychological adjustment. Prevention of injury is the most important consideration during a seizure. Doctors recommend surgery occasionally for severe, uncontrollable epilepsy.

**Supplements with scientific support:**

- **Vitamin B-6** helps support healthy brain function. Take 50 mg per day.
- **Vitamin B-12** works with vitamin B-6. Take 300 mcg per day.
- **Folic acid** supports healthy nerve function. Take 800 mcg per day.
Carnitine: Take 1,000 mg per day.

Taking antiepilepsy drugs depletes the vitamins in the previous section.

**Other supplement recommendations:**

- **Vitamin B-6** is effective for relieving seizures for a particular rare type of B-6-dependent infantile seizures. Pregnant women should be sure to take a vitamin supplement with B-6 in it.

- **Magnesium** is used to treat eclamptic seizures in pregnant women. May have some anticonvulsant activity. Deficiency could increase seizure activity. Take 500 to 800 mg per day.

- **Taurine** has mild anticonvulsant properties. Take 2 to 6 g per day.

- **Omega-3 fatty acids** (fish oils) have moderate anticonvulsant activity. Take 1,500 mg to 4 g per day.

**Lifestyle and dietary considerations:** Children should eat a high-fat, low-protein, low-carbohydrate diet. Epileptics should avoid alcohol and caffeine.

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**Fainting**

A sudden drop in the supply of blood going to your brain can cause you to blackout or lose consciousness. Heart arrhythmia is the major cause. Other cardiovascular problems — dehydration, anemia, hypoglycemia, heat, fear, pain, and many other disorders — also lead to fainting. Fainting was a common coping mechanism in the days of tight corsets. Today, fainting may indicate disease, and the causes should be carefully determined.

**Medical treatment:** Treatment depends on the underlying problem.
Supplements with scientific support:

- **Magnesium** helps decrease arrhythmia. Take 250 to 500 mg per day.
- **Potassium** helps decrease arrhythmia. Take 500 mg per day.
- **Omega-3 fatty acids** have antiarrhythmic activity. Take 1,500 mg per day.
- **Carnitine** improves heart function and decreases arrhythmia. Take 1 to 2 g per day.
- **CoQ-10** reduces arrhythmia. Take 50 to 75 mg per day.
- **Selenium** helps maintain protective glutathione peroxidase levels. Take 100 to 200 mcg per day.

Other supplement recommendations:

- **Blood tonifying herbs:** According to Traditional Chinese Medicine, fainting is often a symptom of weak blood. If you are mildly anemic, try taking blood tonic herbs like yellow dock or nettles for a few months. Take 1 cup of the tea or 6 capsules of the powdered herbs twice daily.

Lifestyle and dietary considerations: Beta-carotene is often low in people suffering from arrhythmia. The best way to raise levels is to eat plenty of fresh fruits and vegetables. Decreased physical fitness can increase susceptibility to fainting. Popular drugs like alcohol, caffeine, and nicotine all increase the possibility of arrhythmia.

Fatigue

In this age of high-speed and high-stress lifestyles, fatigue is a common complaint. Consider evaluating your stress level and work habits, watching your worry level, and taking breaks after periods of emotional
upheaval. Some of the many medical conditions that can cause fatigue include hypothyroidism, anemia, depression, sleep disorders, stress, bacterial and viral infections, liver, heart, or kidney disease, and cancer.

**Medical treatment:** Treatment is directed to the particular problem found after careful diagnosis. *Chronic fatigue syndrome* is a condition of debilitating fatigue, along with numerous other complaints, lasting longer than six months and having no discernible cause.

**Supplements with scientific support:** None

**Other supplement recommendations:**

- **Multivitamin and mineral supplement** may be beneficial because low levels of almost any vitamin and mineral are associated with fatigue.

- **Folic acid** is one of the commonly deficient vitamins. Take 800 mcg per day.

- **Carnitine** is low in some fatigue sufferers. Take 1,000 mg per day.

- **NADH** increases production of the energy storage molecule ATP. Take 5 mg per day.

- **Siberian ginseng (Eleuthero)** increases endurance and balances digestive and hormonal systems. Drink 1 cup tea or 1/2 teaspoon tincture twice daily.

- **Bitters formula** increases your digestion’s ability to release energy from the food you eat. Bitters often contain herbs like ginger rhizome, artichoke leaf (*Cynara scolymus*), cardamon seed (*Elettaria cardamomum*), and gentian root (*Gentiana lutea*). Take 3 to 5 droppersful of the liquid in a little water just before meals regularly.

- **Licorice root** helps support adrenal function. Take 2 capsules of a special licorice extract called DGL two or three times daily.
Don’t take other kinds of licorice products regularly if you have high blood pressure or other heart conditions without the advice of your health care practitioner.

**Lifestyle and dietary considerations:** Avoid stress like a bare light socket with wet feet and get ample sleep. Try not to overeat and stay away from processed foods. Minimize your caffeine, alcohol, and sugar intake. Take short walks — at least 20 to 30 minutes a day — and practice deep and conscious breathing at every possible moment.

**Fever**

Numerous conditions can contribute to an elevation of the body’s normal temperature. Fever is usually defined as a body temperature of over 100 degrees Fahrenheit. Increased body temperature is a part of your normal defense mechanism, and suppressing it may interfere with your ability to fight off an infection. Not only does a fever kill bacteria, but it also stimulates an increased output of virus-fighting compounds such as interferon. When a fever rises to over 105 degrees Fahrenheit, however, it can damage or kill your body’s own cells, especially in the brain. For this reason, and because having a fever is so uncomfortable, many people treat a fever, especially one over 103 degrees.

**Medical treatment:** Treatment is with aspirin or acetaminophen. With your doctor or health practitioner, determine and treat the cause of a fever. Aspirin should not be used to treat fever in children because of the possibility of a serious complication called Reye’s syndrome. Drink plenty of water and teas.

**Supplements with scientific support:** None

**Other supplement recommendations:**

- **Herbal diaphoretics:** Herbs that gently assist your body to
reduce fever are called diaphoretics. Drink 1 or 2 cups of a tea of 1 part each of elder flowers, yarrow tops, and peppermint leaves, several times daily. Meadowsweet is an excellent fever-reducing herb containing natural salicylates, similar to, but not as dangerous to your health as aspirin. Take 3 or 4 droppersful of a tincture in a little water, several times daily.

**Lavender oil:** For a soothing aromatherapy treatment when you have a fever, sponge your hands and feet with a cool washcloth soaked in a bowl of water with two or three drops of lavender oil.

**Lifestyle and dietary considerations:** Fever, especially one with no obvious cause, can be a sign of serious illness and should be investigated. Fever during pregnancy and certain chronic disease conditions may have adverse effects. Elevated temperature in very hot conditions can lead to heatstroke and should be treated. Drink plenty of water with some lemon juice added to cool down your fever.

After exercising, it is not unusual for your temperature to be elevated.

**Fibrocystic Breast Disease**

Fibrocystic breast disease is not really a disease; it is a condition of the breasts that exists in as many as 60 percent of women. Under hormonal stimulation, especially by estrogen, the tissues of the breasts become lumpy, rubbery, and dense. The condition can cause pain, tenderness, and sensations of fullness. These sensations are usually worse premenstrually and improve during and after menstruation. The condition tends to subside after menopause. (Caffeine intake also appears to be a factor.)

**Medical treatment:** Birth control pills may help relieve symptoms. Sometimes aspirin or other aspirinlike drugs are prescribed. In severe
cases, your physician may prescribe an anti-estrogen drug.

**Supplements with scientific support:**

- **Vitamin E:** Some studies have found a reduction in symptoms with vitamin E use. Take 400 to 800 IU daily of mixed natural tocopherols.

**Other supplement recommendations:**

- **Evening primrose oil** reduces the production of inflammatory substances in the body. Take three 500 mg capsules twice daily.

- **Lymphatic cleansers** relieve lymphatic congestion. Your breasts contain lymphatic tissue, so herbs like red clover, cleavers (*Galium aparine*), mullein leaf, red root (*Ceanothus americanus*), or ocotillo (*Fonquiera splendens*) are often helpful. Drink 1 cup of the tea or add 3 to 5 drops of a tincture blend two or three times daily.

**Lifestyle and dietary considerations:** We especially recommend eliminating alcohol. Avoid caffeine and caffeinelike substances in coffee, tea, chocolate, and soft drinks. Eat a low-fat, high-fiber diet, emphasizing whole grains and beans. Try applying warm castor oil packs over the cysts, morning and evening. All women, but especially those with fibrocystic breasts, should perform breast self-exams monthly, seven to ten days after the beginning of menstruation. Many physicians recommend mammograms every two years for women in their 40s and every year after 50.

**Fibroids**

*Fibroids* are benign growths that form in the muscle layer of the uterus and are quite common. As many as 80 percent of women have them, but only about 25 percent of women (usually when they are in their 30s
and 40s) actually have fibroids large enough to cause symptoms.

The most common symptoms of fibroids are irregular uterine bleeding or increased menstrual bleeding. Fibroids can contribute to backache, pain with intercourse, or urination problems, or they can interfere with pregnancy. After menopause, they shrink if you are not taking estrogen replacement therapy.

**Medical treatment:** Small fibroids may be treated with nonsteroidal anti-inflammatory drugs or just left alone and watched. Doctors treat larger fibroids with estrogen-blocking drugs or surgically, sometimes by removing individual fibroids, or most frequently with a hysterectomy. Newer surgical techniques involve methods of destroying the fibroid tissue in place or blocking the arteries supplying blood to the fibroids.

**Supplements with scientific support:**

- **Vitamin E:** One uncontrolled study of pregnant women with fibroids showed promising results. Scientists are not sure how it works. Take 400 to 800 IU per day.

**Other supplement recommendations:**

- **Vitex fruit** helps maintain hormonal balance. Take 1 to 2 droppersful of the tincture daily, first thing in the morning, or 2 to 4 capsules of powdered herb.

- **Milk thistle** supports the liver in cleansing toxins and excess hormones from the body. Take 2 to 4 droppersful of the tincture or 1 or 2 tablets of the standardized extract two or three times daily.

- **Burdock** supports the liver in cleansing toxins and excess hormones from the body. Take 1 cup of the tea or 3 droppersful of the tincture two or three times daily.

- **Poke root oil** is a powerful immune stimulant to assist the body for removing cysts and tumors. **Caution:** Do not take it internally.
Instead, apply the oil over the tender area morning and evening. Discontinue if it causes any skin irritation.

**Lifestyle and dietary considerations:** Caffeinated drinks are associated with an increased risk, and regular use of alcohol and refined sugar might be an important risk factor. A low-fat, high-complex carbohydrate diet may slow growth and even shrink fibroids. Getting lots of exercise lowers fat and estrogen levels.

**Flu**

Flu, or influenza, is an acute respiratory infection caused by a flu virus. Symptoms resemble those of a severe cold, with sore throat, fever, cough, runny nose, headache, all-over body aches, and often debilitating fatigue. Symptoms normally run their course in one to two weeks. Flu can lead to serious complications, especially in the elderly or in people with chronic diseases; however, the possibility of complications and death occurs at all ages.

**Medical treatment:** Rest and high fluid intake are the usual treatment. Aspirin, acetaminophen, and similar drugs are used to treat symptoms. Antiviral drugs are reserved for people at high risk of complications. High mutation rates in flu virus lead to rapid development of resistance, both to the immune system and to drugs. A new highly effective drug that blocks an enzyme crucial to the survival of the virus will likely be on the market in the next few years.

**Supplements with scientific support:** None

**Other supplement recommendations:**

- **Immune stimulant herbs:** Although no cure exists for flu, potent immune-activating herbs often help reduce severity and duration of your symptoms. Take herbs like echinacea, osha
(Ligusticum porteri), baptisia (Baptista tinctoria), or the Chinese ready-made flu formula called Yin Qiao, available from many herb shops or from the Web. These herbs are safe, but limit use to ten days to two weeks to avoid over-stimulation. Take 3 to 5 droppersful of the tinctures, or a blend containing them, up to five times daily.

**Antiviral herbs:** Preliminary studies show that elderberry preparations help retard viral growth and may help reduce symptoms. Follow the product label instructions.

**Herbs to ease fevers:** Herbal diaphoretics help reduce your fever without short-circuiting your immune system’s efforts to eliminate the virus. Take several cups of a tea from yarrow tops, elder flowers, catnip, or peppermint herb during the day and before bedtime.

**Cough-relieving herbs:** Sip a cough-soothing tea throughout the day with licorice root, marshmallow root, violet flowers and leaves (Viola odorata), and wild cherry bark. You can take a teaspoon every hour or two during the day and evening of an herbal cough syrup containing the same herbs, or try a Chinese cough syrup containing the effective cough relievers loquat leaf or platycodon. Herbal cough lozenges are also widely available.

**Lifestyle and dietary considerations:** Wash your hands frequently, especially before rubbing your eyes — a favorite entry route of the flu virus. Eat light and add plenty of cayenne, garlic, and ginger to your food. We don’t recommend fasting during a flu. Drink lemon water throughout the day and get plenty of rest. Vaccinations for the flu virus are recommended especially for the elderly and those with chronic lung disease.

## Food Poisoning

Hidden in your food are millions of microorganisms — not a comforting thought, but fortunately, few will harm you. In fact, many,
like the Lactobacilli, may be essential for good health. But some are very dangerous, including bacteria, viruses, and parasites. Scientists track more than 250 diseases caused by contaminated food and drink, and millions of cases of food poisoning occur every year. In the great majority of cases, people recover without any treatment. Thousands of deaths occur each year, however, and food poisoning should be taken seriously, especially in the more susceptible elderly and very young, in pregnant women, and in those already debilitated by other diseases. With severe or prolonged symptoms, determining the exact cause may be crucial to proper treatment. The first symptoms that occur and the duration of the symptoms vary with the cause and the general health of the individual involved. Onset can be anywhere from one or two hours to two or three days after exposure, and the duration is most commonly one to three days, though sometimes up to a week or even longer. Symptoms include nausea, vomiting, diarrhea, abdominal cramps, fever, headache, and weakness.

**Medical treatment:** Specific treatment depends on the cause. Preventing dehydration and electrolyte imbalances are important. Occasionally, antibiotics are called for, although in many cases, these drugs may make things worse.

**Supplements with scientific support:** None

**Other supplement recommendations:**

- **Immune stimulants** like echinacea or the Chinese herb andrographis (*Andrographis paniculata*) help support your immune function during an infection. Take several droppersful, several times daily, up to every hour, if necessary.

- **Acidophilus** helps establish beneficial intestinal bacteria. Take 9 to 18 billion organisms daily (1 to 2 capsules three times daily) on an empty stomach, or eat other probiotics, including unsweetened live culture yogurt or other fermented milk products.
Charcoal absorbs toxins and possibly some viruses and bacteria. Take 4 or 5 tablets at the onset of symptoms. Repeat dose in a few hours if needed.

Vitamin A helps reduce incidence of severe gastroenteritis in children. Because it is not effective for acute cases, use as a prevention only. Take 5,000 IU per day.

Vitamin E may reduce some of the free radical damage caused during acute gastroenteritis. Take 400 IU per day.

Fiber may reduce length and severity of symptoms by helping eliminate bacteria from the colon. Follow label instructions regarding dose.

Antioxidant polyphenols may be protective. Especially helpful are the chemical compound catechin and related substances found in green tea. Take 1 to 2 g per day.

Lifestyle and dietary considerations: A vegetable, miso, or seaweed broth or electrolyte replacement product from your practitioner is useful for maintaining fluid and electrolyte balance if you have diarrhea or vomiting. (See the section “Diarrhea” earlier in this part.) Prevention principles include cleanliness, thorough cooking and keeping cooked food hot, and prompt refrigeration of spoilable food. The foods most often implicated in infectious food poisoning are meats, (including red meat, poultry, fish, and shellfish), dairy products, eggs, custards, and cream fillings in pastries.

Hair Loss

Hair loss is all too common in men over 40 or 50. The most common type is called male pattern baldness. The second most common is alopecia areata. The cause of alopecia areata is uncertain, but it does involve inflammatory activity in the hair follicles. The idea that an autoimmune reaction is involved is currently gaining favor.
Aging, heredity, fungal and other skin diseases, trauma, medications, including chemotherapy, toxins, illness, fever, radiation, pregnancy, hormone imbalance, malnutrition, and hair pulling may all play a part in hair loss. Even though it is often difficult to do so, the cause of alopecia (hair loss) should always be determined, if possible, so that proper treatment may be initiated.

**Medical treatment:** Treatment for most cases of hair loss is unsatisfactory at this time. Drugs used for male pattern baldness have side effects, have to be continued to maintain results, don’t work in many people, and produce finer thinner hair. Different types of surgery are moderately successful. Estrogens are used in female male pattern baldness. Alopecia areata is sometimes treated with topical immune system modulators or immune-suppressing corticosteroids.

**Supplements with scientific support:** None

**Other supplement recommendations:**

- **Antioxidants:** Take 400 to 800 IU of vitamin E and 1,000 mg of vitamin C daily to reduce free radical damage to your hair follicle.

- **Essential fatty acids:** A full range of important fatty acids might help reduce inflammation that leads to hair loss. Take flaxseed and fish oil capsules daily. Follow the manufacturer’s dosage instructions.

- **Herbal scalp treatment:** Rub in an herbal liniment or tincture several times daily containing the circulatory-stimulant herbs rosemary and cayenne. Use a rosemary shampoo several times a week, and rub a small amount of sweet almond oil with 2 drops of rosemary oil into your scalp vigorously after rinsing. Rosemary is a potent antioxidant herb for your hair.

**Lifestyle and dietary considerations:** Brush your hair regularly with a natural bristle brush to increase circulation to your scalp and help
remove wastes. Although not scientifically proven, your general level of health does make a difference for reducing hair loss. Caffeine-containing drinks and other stimulants can reduce blood flow and interfere with proper nutrition to your hair and scalp.

Hay Fever

See “Allergies.”

Headache, Migraine

Migraine sufferers often know that an attack is coming on because of the sudden onset of irritability or depression, often accompanied by loss of appetite. Just before the headache begins, sufferers experience visual sensations of flashing spots or heightened sensitivity to light or touch. Migraines usually occur on just one side of the head as throbbing, often excruciating headaches, and nausea and vomiting are common. Migraines also run in families and occur more frequently in women.

If you are a migraine sufferer, you probably find that symptoms are triggered by sensitivity to certain foods, stress, or menstruation. Recent research has revealed that there is localized inflammation of the covering tissues of the brain, called meninges, during a migraine, causing the release of molecules that sensitize pain receptors.

**Medical treatment:** Doctors prescribe painkillers and ergot or other compounds that cause vasoconstriction, reducing pressure and desensitizing pain sensors.

**Supplements with scientific support:**

- Riboflavin (vitamin B-2) regulates cellular respiration. Several
studies show a significant preventive effect of high doses of riboflavin. Take 200 to 400 mg per day.

Other supplement recommendations:

✔️ Feverfew reduces inflammation. Take 1 to 3 droppersful of the tincture once or twice daily, or 2 capsules of the powder or standardized extract daily.

✔️ Calcium may help prevent migraines. Take 800 to 1,200 mg per day with vitamin D.

✔️ Vitamin D may help prevent migraines. Take 100 to 400 IU per day with calcium.

✔️ Magnesium is often used for migraine prevention. Careful studies, however, show no effect. Take 400 to 600 mg per day.

Lifestyle and dietary considerations: Foods thought to make some people more prone to migraines include citrus, coffee, tea, chocolate, milk, nuts, pork, certain vegetables, and cola drinks. Studies indicate that the worst offender is red wine.

Headache, Tension

Headaches are one of humankind’s most common afflictions. The causes are numerous and diverse, and diagnosis can be difficult. Those designated tension headaches are the most common. They often occur on a daily basis, and worsen as the day wears on and the stresses of the day take their grisly toll. Emotional stress, noise, glare, and fatigue often make them worse. Pain often starts in the back of the head, and may spread through the temples to the front and become generalized. The pain is often described as pressing, squeezing, tight, heavy, or vise-like. There is often chronic muscular tension in the shoulder and neck muscles.
Medical treatment: Treatment is with painkilling drugs, especially aspirin or acetaminophen, muscle relaxants, relaxation exercises, and massage. Accurate diagnosis is important because a headache may be a symptom of a serious treatable disease.

Supplements with scientific support: None

Other supplement recommendations:

نشر Valerian root relieves pain. Drink 1 cup of the tea or 1/2 teaspoon of the tincture two to four times daily.

نشر Meadowsweet herb contains salicin and acts as a pain reliever. Drink 1 cup of the tea or 2 to 4 droppersful of the tincture two or three times daily.

Lifestyle and dietary considerations: Regular exercise is good prevention for tension headaches. Deep breathing and hot foot baths may also be beneficial. Food reactions can set off headaches, so the detox diet in Chapter 2 may help you get a handle on headaches.

Heart Attack

A heart attack, or myocardial infarction, occurs when a clot blocks blood flow to the heart, causing death of some of the heart muscle. Deep, sometimes severe pain in the chest may radiate down the left arm to the shoulders and even the jaw. Shortness of breath also occurs. About 20 percent of heart attacks are “silent,” with no pain. Prompt treatment saves many victims. If they make it to the hospital alive, 90 percent survive. Every year, 400,000 people in the United States die from heart attacks.

Medical treatment: Clot-dissolving drugs help to open blocked arteries. Drugs, including an aspirin a day to prevent clotting, and diet
and lifestyle modification are used in long-term treatment to prevent recurrences. Angioplasty is a procedure used to open blocked arteries. Bypass surgery replaces areas of the blocked artery to re-establish blood flow. Pacemakers regulate the heartbeat. When damage is extreme, heart transplants are an option for some.

**Supplements with scientific support:**

- **Vitamin E** decreases oxidation of fatty acids, lowers LDL levels, and lowers heart attack risk, according to some studies. Take 400 to 800 IU per day mixed natural tocopherols (natural forms of vitamin E).

- **Vitamin C** is an important antioxidant that works with vitamin E to lower heart attack risk. Take 1 to 4 g per day.

- **Niacin** reduces LDL, or “bad,” cholesterol. Taking 100 to 200 mg three times daily reduces risk of recurrent heart attacks. (You can work your way up to 500 mg three times daily.)

- **Vitamin B-12** lowers homocysteine levels. High homocysteine is associated with increased heart disease. Take 250 to 300 mcg per day.

- **Folic acid** lowers homocysteine levels. Take 400 mcg per day.

- **Vitamin B-6** lowers homocysteine levels. Take 50 mg per day.

**Other supplement recommendations:**

Because heart disease is most often a consequence of arteriosclerosis, recommended supplements are the same.

- **Omega-3 fatty acids** (in fish oil) lower heart disease risk. Eating fish may be the best way to get oil. Take 1,500 mg to 4 g of EPA and 500 mg to 2.5 g of DHA per day.

- **Carnitine or propionyl-l-carnitine** may improve lipid profiles and slow progression of atherosclerosis. Improves exercise capacity. Take 1,000 mg to 3 g per day.
TAURINE may improve lipid profiles and slow atherogenesis. Take 1,000 mg to 3 g per day.

ARGININE helps form an enzyme that relaxes blood vessels. Take 2 to 3 g per day for coronary artery disease.

VITAMIN B-3 helps lower total cholesterol and raise protective high-density lipoproteins. Take 25 to 50 mg daily.

OLIVE OIL (monounsaturated oil) is associated with lower levels of cardiovascular disease.

COQ-10 may help prevent oxidation of low-density lipoproteins. Take 100 mg per day.

CAYENNE (Capsicum annuum): Many herbalists believe that cayenne pepper, taken daily in capsules (2 capsules twice daily) reduces your risk of having a heart attack, but this is not proven.

MEADOWSWEET contains natural salicylates that might act similar to aspirin for preventing heart attacks, but this is not proven. Drink 1 cup of the tea twice daily, or take 2 to 4 droppersful of the tincture two to three times daily.

GARLIC helps reduce the stickiness of cells in your blood, reducing risk of clot formation. Take 1 or 2 pearls twice daily.

Lifestyle and dietary considerations: Numerous studies show that your diet will either help you avoid heart attacks or greatly increase your risk. Many experts recommend a diet low in saturated fat and refined sugars, high in complex carbohydrates, with ample fiber, and fruits and vegetables. Smoking is a major risk factor. Avoid partially hydrogenated fats such as those that are found in margarine, deep-fried foods and baked goods, and regular peanut butter. Gradually increase exercise activity under a doctor’s supervision if you are over 45 or have heart disease. Control high blood pressure. Stress reduction and relaxation exercises should be included in a program to reduce heart disease.

Although one or two alcoholic drinks daily may have some protective
effect against coronary artery disease, any more than that increases the risk of disease and death. Your genetic makeup is significant but can be overcome with good health habits.

**Heartburn**

Heartburn is the backing up of stomach acid into your esophagus through a relaxed or damaged valve between your esophagus and stomach often causes an unpleasant and even painful burning sensation in your chest and sometimes a taste of regurgitated food in your mouth. The medical name for the condition sounds as bad as it feels — gastroesophageal reflux disease, or GERD. Most people have occasional reflux. Problems arise when the condition becomes chronic. The lining of the esophagus is not protected from acid the way the stomach is and can become inflamed, especially with continued irritation over time. More important, an association may exist between chronic heartburn and cancer of the esophagus.

**Medical treatment:** Treatment is with drugs to control acid secretion or the tone of the muscle controlling the valve.

**Supplements with scientific support:** None

**Other supplement recommendations:**

- **Calcium carbonate** works as an antacid lozenge. Take 600 to 1,200 mg per day.

- **Deglycyrrhizinised (DGL) licorice root extract** reduces inflammation and soothes tissues. This type of licorice is preferable, because it has less potential for causing high blood pressure than other licorice preparations. Follow the manufacturer’s directions for taking DGL products or standardized extracts.
Lifestyle and dietary considerations: Avoiding foods that seem to make the problem worse like spicy or fried foods is a no-brainer. Unfortunately, the list of common trigger foods might read like a menu from your favorite fast-food restaurant — high-fat foods, coffee, tea, chocolate, alcohol, orange juice, tomato sauce, and carbonated sodas. Eat smaller, more frequent meals, and especially don’t overeat if you want to avoid symptoms. Bending over and lifting things on a full stomach can bring on heartburn, and you may want to avoid eating within 2 or 3 hours of going to bed.

Some medications cause acid reflux. Check with your doctor if you’re taking medications.

Hemorrhoids

Hemorrhoids are swollen protruding veins inside the rectum and on the outer surface of the anus form hemorrhoids or “piles.” Internal hemorrhoids are more likely to bleed, and external ones more likely to form clots and become very painful. Constipation that causes straining when moving your bowels is probably the most significant cause. Hereditary factors may play a role, but diet, exercise, and other health habits are much more important. Most hemorrhoids are not a serious problem and will regress on their own with conservative treatment.

Medical treatments to relieve symptoms consist of the application of ice, soothing analgesic creams, and anti-inflammatory corticosteroids such as cortisone.

Supplements with scientific support: None

Other supplement recommendations:

✔ Horse chestnut eases pain and swelling of hemorrhoids. Apply the ointment externally to the area to help strengthen the veins.
Follow manufacturer’s instructions for extract in capsule or tablet form

자는 hazel (*Hamamelis virginiana*) strengthens veins. Take 2 or 3 droppersful of the tincture several times daily, or apply a cream externally on the affected area.

**Lifestyle and dietary considerations:** General health is important for maintaining health of the tissues involved in hemorrhoid formation. Increased fluid intake, increased fiber in the diet, and increased exercise all work to keep the bowels moving easily, relieving symptoms. Avoid sitting on the toilet for extended periods, straining when your bowels move, or prolonged sitting or standing in general.

**Hepatitis**

Hepatitis means inflammation of the liver, which can result from exposure to alcohol, toxic chemicals like solvent residues, and drugs like aspirin and acetaminophen. Several viruses cause hepatitis; Hepatitis A, Hepatitis B, and Hepatitis C viruses are the three most significant virally caused types of hepatitis in the United States and Europe. Hepatitis A is usually an acute hepatitis passed by fecal-oral contamination through contaminated food and water with lack of good sanitation. Hepatitis A is treated with supportive care and rest and disappears on its own in a few weeks. Hepatitis B is passed mainly through blood transfusions, IV drug use, and other contaminated body fluids, and sometimes through sexual activity. Acute Hepatitis B lasts two to three months and is treated much the same as Hepatitis A. It becomes chronic about 10 percent of the time. Hepatitis C is the major hepatitis virus transmitted through blood infusions, and like Hepatitis B can be passed by sharing needles and, more rarely, sexually. Hepatitis C becomes chronic about 80 percent of the time. Autoimmune hepatitis is another form of hepatitis, more common in women than in men.
Medical treatment: Currently, Hepatitis C is treated with interferon plus an antiviral drug such as Ribavirin. All forms of hepatitis benefit from withdrawal of alcohol and other liver-irritating drugs, rest, and a healthful diet. Vaccines are available for Hepatitis A and B.

Supplements with scientific support:

- **Milk thistle seed** helps prevent liver damage. Take 1 or 2 capsules or tablets of the standardized extract two or three times daily.
- **Shiitake mushroom** has antiviral properties. Take 3 to 4 tablets or capsules of a concentrated extract twice daily with meals.

Other supplement recommendations:

- **Vitamin E** helps protect the liver from damage. Take 400 to 800 IU mixed natural tocopherols per day.
- **Vitamin C** helps protect the liver from damage. Take 2 to 4 g per day.
- **B-complex vitamins** support healthy liver function. Take 1 or 2 capsules of a complete B vitamin supplement daily.
- **Selenium** helps reduce liver damage. Take 200 mcg.
- **Schisandra berry** (*Schisandra chinensis*) acts as a liver protector. Drink 1 cup of the tea or take 2 to 3 capsules two or three times daily.
- **Quercetin** protects the liver. Take 200 to 300 mg two to three times daily.

Lifestyle and dietary considerations: We recommend taking 2 or 3 tablets of a complete nutritional supplement containing superfoods and tonic herbs like nettles daily, but avoid supplements with high levels of iron, which can stress your liver. Don’t take more than about 4 to 6 mg of iron in supplement form. Niacin can also be harmful to your liver.
and should not be taken in high doses (such as more than 3 g per day, although 1,500 to 2,000 mg can irritate the livers of some people). Your diet should contain moderate levels of protein and low amounts of fat with plenty of whole grains and fresh fruits and vegetables. We can’t emphasize enough the importance of avoiding drugs, alcohol, and fried foods that stress your liver.

**Herpes Simplex**

Herpes simplex infections occur mainly as cold sores or fever blisters around the mouth, or they appear on the genitalia as genital herpes. Oral herpes are usually of type 1 virus; genital herpes are usually of type 2 virus. Each one can occur in either location and, more rarely, in other areas of the body. Outbreaks start with tingling and burning. Small blisters then appear, which break and form into small painful ulcers that heal in five to ten days. Between attacks, the virus lies dormant in nerve ganglia. The first outbreak is usually the worst. Genital herpes recurs on average four to five times per year; oral herpes recurs about once per year. These viruses are contagious and can be passed with kissing and sexual contact.

**Medical treatment:** Antiviral drugs, if started early in a flare-up, reduce the severity and duration, but do not cure the infection. Doctors often recommend antiviral drugs as suppressive therapy for people who have frequent attacks. An antiviral drug cream is sometimes helpful but rapidly produces resistant virus. Zinc sulfate and heparin topical preparations decrease the severity of outbreaks. You can choose from many topical medications to treat symptoms of burning, pain, and itching.

**Supplements with scientific support:**

➤ **Lysine** can decrease frequency and severity of recurrences,
especially for type I herpes fever blisters. Take 1,000 mg one to three times per day.

**Other supplement recommendations:**

- **Iron** levels are lower in those having more recurrences. Remember that too much iron can be harmful. We recommend eating a diet rich in iron and other minerals, like green leafy vegetables. Take 10 mg per day.

- **Lemon balm** accelerates healing. Apply lemon balm cream to the affected area several times daily.

- **Shiitake mushroom** strengthens the immune system. Take 3 or 4 tablets or capsules of a concentrated extract 2 times daily.

- **St. John’s wort** acts as an antiviral. St. John’s wort cream or oil applied topically on the sores often reduces pain. Take 3 droppersful of the tincture or 2 capsules of the standardized extract morning and evening.

**Lifestyle and dietary considerations:** General health and immune status greatly influence the likelihood of recurrences. Stress, illness, and fatigue predispose your body to infections and subsequent outbreaks. If outbreaks have you at the breaking point, eat well, get plenty of sleep, reduce stress, and practice healthy habits. Moderate the amount of time you spend in the sun, because intense exposure can increase your breakouts. Herpes infections can be dangerous to babies, so be careful around them if you have active herpes of any kind.

Increase your intake of lysine-containing foods such as yogurt, turkey, fish, chicken, and cottage cheese. During an outbreak of blisters, strictly avoid chocolate, peanuts, and citrus fruits and pineapple, as these are well-known trigger foods. (See Chapter 5 for more on amino acids and their association with herpes.)
High Blood Pressure

You know that image of a red-faced man with clenched fists, eyes bugging out, blood pressure rising like the mercury in a thermometer on a scorching day. High blood pressure, or hypertension, is extremely common in the United States. Nearly one-third of adults may have it, although unlike the man getting ready to blow his top, many are unaware that they have high blood pressure. At the age of 60 the incidence rises sharply, reaching over 50 percent. Smoking, a high-fat diet, and high cholesterol all contribute to blood vessel stiffness and pressure. Hypertension is called “the silent killer” because you may not experience any symptoms. The disease must be diagnosed by measuring your blood pressure. High blood pressure simply means that the blood pumped through your blood vessels is at such a higher pressure than normal that it is not safe. High blood pressure is a significant risk factor for heart disease, kidney disease, stroke, and aneurysms (blood vessel blowouts). Hypertension may be primary or essential hypertension, and may be from multiple causes. The cause of secondary hypertension is known and usually involves kidney disease. Secondary hypertension requires different treatment than primary hypertension. Treatments discussed here are for primary hypertension.

**Medical treatment:** First-line treatment involves making changes in diet, restricting sodium intake, exercising regularly, practicing stress reduction, and avoiding alcohol and tobacco. If these approaches don’t work, medications are prescribed. Doctors prescribe numerous antihypertensive drugs. Some reduce the blood volume by removing excess water, some reduce the force of contraction of the heart, some relax the blood vessels, and others alter nerve signals to the heart and blood vessels.

**Supplements with scientific support:**
**Calcium:** Numerous studies indicate a benefit from calcium supplementation. Take 1,000 to 2,000 mg per day.

**Magnesium** can moderately lower blood pressure. Take 500 to 750 mg per day.

**Other supplement recommendations:**

- **Potassium** is especially useful for salt-sensitive hypertension. Take 100 to 300 mg per day.

- **CoQ-10** benefits heart function and helps lower blood pressure. Take 100 to 200 mg per day in two doses.

**Lifestyle and dietary considerations:** Relaxation techniques, such as meditation, deep breathing, walking, or yoga, definitely help lower blood pressure. Exercise, weight loss, and reducing alcohol intake are also important. You may benefit from moderating your intake of salt, coffee, black tea, and other caffeine-containing drinks and increasing your intake of fatty fish, such as salmon, tuna, and swordfish. (And stop smoking! It’s a key contributor to hypertension.)

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**High Cholesterol**

It seems that practically everyone knows his or her cholesterol level these days. It is probably the most requested test. High cholesterol levels are a major risk factor for heart disease and stroke, both major killers (see also “Arteriosclerosis,” “Heart Attack,” and “High Blood Pressure”). Most experts recommend a total cholesterol level of under 200, but recent research points to 160 or lower as much healthier. You have several kinds of cholesterol in your blood, named for the type of lipoprotein (fat-carrying molecule) that carries the cholesterol. Some, such as low-density lipoprotein (LDL) are bad; others, such as high-density lipoprotein (HDL) are good. LDL levels are usually used to determine your risk.
**Medical treatment:** Genetics, diet, obesity, smoking, being male or a postmenopausal female, lack of exercise, and high blood pressure are all risk factors for having elevated cholesterol. You can reduce high cholesterol levels with a low-cholesterol, low-fat (especially saturated fat) diet, exercise, weight loss, and stopping smoking. If these don’t work and your physician determines that your LDL levels are too high, you may choose to take cholesterol-lowering drugs. The most popular ones right now are in a class of drugs called **statins**, which inhibit a liver enzyme involved in the liver’s production of LDL cholesterol. These drugs are dramatically effective at reducing heart attack rates and considered quite safe. Other drugs interfere with cholesterol absorption from the gut.

**Supplements with scientific support:**

- **Nicotinic acid (niacin)** may reduced cholesterol. Practitioners often prescribe this form of vitamin B-3; however, the potential for side effects, especially liver problems, and elevated blood sugar is quite high. We do not recommend this treatment. Nicotinamide, another form of B-3 with fewer side effects, is not effective for lowering cholesterol. Take 1,500 mg to 3 g per day.

- **Vitamin C** has a modest effect on raising levels of good HDL cholesterol. Take 2 to 4 g daily.

- **Garlic** protects the cardiovascular system and helps reduce high cholesterol. Take 2 to 4 pearls daily.

**Other supplement recommendations:**

- **Shiitake mushroom** reduces symptoms associated with high cholesterol. Take 3 or 4 tablets or capsules of a concentrated extract twice daily.

- **Fenugreek seed** has cholesterol-lowering properties. Drink 1/2 to 1 cup of the tea two or three times daily.

- **Artichoke leaf** stimulates bile and helps lower cholesterol.
Drink 1/2 to 1 teaspoon of the tincture two or three times daily before meals.

💪 Alfalfa tablets (*Medicago sativa*) help reduce cholesterol in some users; they are also a good source of minerals and phytoestrogens. Take 2 or 3, according to the product label.

**Lifestyle and dietary considerations:** The most significant dietary factors contributing to high cholesterol are saturated (animal) fat and refined sugar. You can lower your cholesterol levels and promote good health by adopting a vegetarian diet. Eating artichokes regularly can help normalize cholesterol levels. Minimize your consumption of dairy products, sugar, coffee, and alcohol. Smoking is a strong risk factor for elevated cholesterol. Exercising regularly is a good method for raising the levels of good (HDL) cholesterol.

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**Hypothyroidism**

Hypothyroidism is a chronically underactive thyroid gland, but the disease is not as common as often believed. Certainly not every person who is feeling tired and sluggish has hypothyroidism. Thyroid hormone is the primary hormone setting the overall metabolic rate in your body. People who are thyroid deficient tend to put on weight, be sluggish, sensitive to cold, easily fatigued, have headaches, dry puffy skin, thinning hair, constipation, and excessive menstrual flow. The best diagnosis of the most common form of hypothyroidism is by measuring thyroid stimulating hormone, which is secreted by the pituitary. Deficiency may be caused by underproduction of thyroid hormone or by impaired activity of thyroid hormone in your body tissues. Common causes include an autoimmune attack on the thyroid, iodine deficiency, and treatment for hyperthyroidism (overactive thyroid gland).

**Medical treatment:** Treatment is with synthetic thyroid hormone. Too
much thyroid hormone can contribute to calcium loss from the bones and increased risk of heart disease.

**Supplements with scientific support:**

- **Iodine** is essential for normal thyroid hormone function. If you don’t eat iodized table salt, eating some kelp may be a good idea. Too much iodine can suppress thyroid function. Most people get sufficient iodine in their diets. Take 150 mcg of iodine or 2 or 3 g per day of kelp.

- **Selenium** is also essential for normal thyroid hormone function, especially in the elderly. Excess can produce hypothyroidism. Take 200 mcg per day.

- **Zinc** is also essential for normal thyroid function. Take 30 mg per day.

**Other supplement recommendations:**

- **Guggul** supports the thyroid function. Take 1 or 2 capsules of this east Indian traditional herb several times daily.

**Lifestyle and dietary considerations:** Synthetic hormone is preferred over natural hormone because it actually works more like your own thyroid than natural thyroid preparations do. Excessive regular consumption of some foods, such as cabbage, peanuts, soybeans, and millet, interfere with normal thyroid function. If you have a thyroid problem, consider using these foods in moderation. High-protein diets may worsen autoimmune responses. The most common cause of hypothyroidism is an autoimmune attack of the thyroid gland. Eat moderate amounts of protein. A vegetarian diet may be helpful. Compounds found in cigarette smoke interfere with normal thyroid function and may increase the incidence of autoimmune hypothyroidism.
Hypoglycemia

_Hypoglycemia_ means low (hypo) blood sugar (glycemia). Low blood sugar was once a popular diagnosis, but has lost ground to other health concerns such as candida and chronic fatigue syndrome. Modern medicine recognizes two major categories of hypoglycemia. Fasting hypoglycemia can occur when it’s been a long time since your last meal. Dietary sugar runs out, and the body is unable to make enough sugar to maintain its needs. Various conditions, such as intense or prolonged exercise, increase needs or decrease the ability to make more sugar. Reactive hypoglycemia occurs when the normal sugar balancing mechanisms overreact to sugar overload in the diet, or when drugs or alcohol interfere with your body’s mechanisms for regulating sugar levels in the blood. Reactive hypoglycemia can be an early sign of diabetes. Hypoglycemia is a symptom with numerous possible causes, which need to be assessed by a health practitioner. If you really do have chronic low blood sugar levels, you may experience weakness, shakiness, confusion, irritability, faintness, and palpitations. Remember that these symptoms occur with many other diseases as well.

**Medical treatment:** Acute hypoglycemia is treated with sugar. If the patient is unconscious, a doctor will administer glucagon, a hormone that stimulates sugar production and release. Eating normally relieves fasting hypoglycemia. Try eating smaller and more frequent meals to stabilize blood sugar levels. Eat mainly whole grains and beans to obtain carbohydrates, and strictly avoid refined sugar.

**Supplements with scientific support:** None

**Other supplement recommendations:**

- ✔️ **Chromium picolinate:** Some studies show a possible benefit. Though often promoted as valuable for treating blood sugar problems, deficiencies are rare, and chromium picolinate
supplements, especially when taken with vitamin C, may produce free radicals and support blood sugar metabolism. Take 200 to 400 mcg.

**Lifestyle and dietary considerations:** Nutritionists recommend a diet high in fiber and complex carbohydrates, moderate in protein, and low in refined carbohydrates. Eating regular meals, and more frequent meals in the case of fasting hypoglycemia, is beneficial. Avoid alcohol and caffeine.

### Indigestion (Dyspepsia)

Watching the ads on TV for fizzy products that go plop-plop shows you what a large market exists for anti-indigestion, anti-dyspepsia drugs. Twenty to 50 percent of the population suffers from indigestion, or pain and discomfort in the upper abdomen after eating, often including heartburn. (See “Heartburn.”) Pain in the upper abdomen can happen anytime and is not necessarily associated with eating a meal, but it may be a symptom of a disease such as ulcers or result from the use of aspirin and other nonsteroidal anti-inflammatory drugs.

**Medical treatment:** Cultural and psychological factors often play a large part in how much of a problem indigestion is to you. Doctors use diagnostic tests such as endoscopy, antibody tests for *H. pylori* infection, a risk factor for ulcers, X rays, and ultrasound. Popular drugs for dyspepsia include antacids and histamine receptor blockers. Because of the high frequency of *H. pylori* infection, antibiotics are often used to treat dyspepsia, although not necessarily with success.

**Supplements with scientific support:**

- **Vitamin C**, as an antioxidant, helps prevent free radical damage. Low vitamin C levels are common in *H. pylori* infection. Take 2 to 4 g per day.
Vitamin E works as an antioxidant to help prevent free radical damage. Take 400 to 800 IU mixed natural tocopherols.

 Acidophilus and probiotics may improve digestion and decrease dyspepsia. Take 9 billion organisms daily.

Other supplement recommendations:

 Gentian root promotes good digestion. Drink 10 to 30 drops of the tincture 2 to 3 times daily in a little water before meals.

 Artichoke leaf moves the bile, helping to improve digestion. Drink 20 to 30 drops in a little water before meals.

Lifestyle and dietary considerations: If indigestion is a frequent problem, take a close look at what you’re eating. Does the indigestion relate to consumption of a particular type of food or certain food? Fatty foods, milk products, beans, onions, and cabbage, commonly aggravate indigestion. Almost any food can cause problems for some people. Difficulty coping with stress is related to increased dyspepsia. Practice stress reduction, especially before eating. Smokers have higher rates of H. pylori infection, higher incidence of dyspepsia, and higher rates of stomach and small intestine disease.

Inflammatory Bowel Disease

Chronic inflammatory bowel disease includes two conditions: Crohn’s disease and ulcerative colitis (UC). Symptoms usually include alternating diarrhea and constipation, frequent bowel movements, pain, gas, and cramps after eating. UC usually begins near the rectum and can spread up into and even throughout the colon. The diarrhea of UC is often bloody and filled with mucus. The severity of symptoms varies over time with flare-ups and remissions. Weight loss, fever, malaise, and anemia often occur. Crohn’s sufferers may have systemic symptoms like the sore joints of arthritis or skin, liver, kidney, eye, or
other problems.

**Medical treatment:** Someone once said, “A disease that has many treatments has no cure.” This is certainly true of inflammatory bowel disease. Doctors prescribe drugs containing aminosalicylates, anti-inflammatory corticosteroids, immune suppressant drugs, and antidiarrheal drugs to help alleviate the symptoms. A new monoclonal antibody drug blocks an inflammatory molecule (called tumor necrosis factor) implicated in inflammatory bowel disease. Antibiotics are sometimes helpful. Patients often need nutritional support (administered intravenously (iv) with severe symptoms) because of impaired absorption. Diseased sections of the bowels are sometimes removed surgically.

**Supplements with scientific support:**

- **Boswellia serrata extract,** an anti-inflammatory herb, can reduce symptoms. Take 350 mg in capsules, 2 in the morning and 1 in the evening.

- **Glutamine** accelerates the healing of the intestinal tract. Take 500 to 1,000 mg two or three times daily.

- **EPA:** Studies show it relieves symptoms of inflammatory bowel disease. Take 1,000 to 2,000 mg twice daily.

**Other supplement recommendations:**

- **Folic acid** increases absorption of this important vitamin, which is reduced with diarrhea. It also helps decrease higher risk of developing bowel cancer with both kinds of colitis. Take 800 mcg daily.

- **Vitamin C:** Children with colitis have lowered levels of vitamin C; an important antioxidant. Take 2,000 mg daily.

- **Vitamin E:** Children with colitis have lowered levels of vitamin E, an important antioxidant. Take 400 to 800 IU daily.
**Vitamin A:** Patients with colitis have much lower levels of this antioxidant vitamin compared with volunteers that are free from symptoms. Take 5,000 IU daily.

**Calcium** is depleted with colitis. Take 800 to 1,200 mg per day (especially if taking corticosteroids).

**Selenium** is important to the functioning of the protective antioxidant glutathione. It is often depleted in long-term colitis sufferers. Take 50 to 200 mcg daily.

**Zinc** may be helpful. Take 30 to 60 mg daily.

**Magnesium:** Increased loss of magnesium often occurs in colitis sufferers. Take 300 to 600 mg daily.

**Probiotic (acidophilus) supplement** helps restore normal bowel flora, may reduce symptoms. Take 2 capsules in the morning and 1 in the evening with meals.

**Herbal gas-relievers,** such as peppermint and fennel seed tea, help to relieve cramping. Drink 1 cup, several times daily after meals. Special enteric-coated capsules (don’t dissolve in the stomach) may be helpful to relieve symptoms of gas and cramps.

**Herbal bowel-relaxers** include chamomile tea, and wild yam. Drink 1 cup several times daily.

**Soothing and anti-inflammatory herbs** include marshmallow root, fenugreek seed, barley water, licorice, and meadowsweet. Don’t take licorice regularly if you have high blood pressure. Add 3 droppersful of meadowsweet tincture to water and drink four or five times daily.

**Lifestyle and dietary considerations:** Symptoms often worsen with increased fat intake, especially animal fat and omega-6 fatty acids from vegetable oils. You can often find relief by avoiding various combinations of corn and corn products, wheat, nuts, milk and other dairy products, bran, tomato, chocolate, cola drinks, cheese, several animal protein sources, tomato sauces, certain fruits and fruit juices, cabbage, beans, and chewing gum. Remember that most fresh fruits and
vegetables are said to be protective. We have found that wheat products bring on symptoms in many of our patients. Testing with elimination diets (one food at a time for six weeks) may help determine which foods aggravate your symptoms. Support groups are helpful in dealing with the emotional difficulties of inflammatory bowel disease. Smoking aggravates this condition. Make sure to get adequate exercise.

Insomnia

Insomnia, or difficulty sleeping, is a very common problem, affecting as much as a third of the population. Sufferers either have difficulty getting to sleep or wake in the night and have a hard time getting back to sleep. Sleep deprivation is a serious health problem, leading to increased death rates, more psychiatric problems, and decreased work productivity for many people. Lack of sleep is the second leading cause (after alcohol consumption) of automobile accidents. Sometimes temporary insomnia is related to stressful life events. Other times, you can determine a cause for insomnia and make appropriate changes. We have found that caffeine, alcohol, nicotine, antidepressants, and many other drugs can cause insomnia. Remember that alcohol and sleeping pills may knock you out, but your sleep quality is not as good. Aging and many disease conditions, including breathing problems and restless leg syndrome, may contribute.

Medical treatment: Education, counseling, and medications are used to treat insomnia. Educating people about sleep-enhancing behaviors has long-term beneficial results. Experts recommend using the bedroom only for sleep or sex. (See also our recommendations below.) Counseling to change attitudes and beliefs about sleep is helpful. Medications, most of which have side effects, produce withdrawal and rebound insomnia; these are not effective in the long term and are greatly over prescribed. A new class of medication called
pyrazolopyrimidines, which does not have the side effects of traditional sleep-inducing drugs, has been approved in Europe and may soon be available in the United States.

**Supplements with scientific support:**

- **Melatonin**: Take 500 mcg to 3 mg 1 to 2 hours before bed. Do not use if pregnant or nursing. May worsen symptoms if you have normal melatonin levels prior to supplementation.

- **Magnesium** may help relax your muscles and provide some benefit for fitful sleepers. Take 500 mg at bedtime with 500 mg of calcium.

- **5-hydroxy-L-tryptophan** is used as a replacement for tryptophan, which was taken off the market because of disease-causing contaminants. Contaminants have also been found in samples of 5-hydroxy-L-tryptophan, but so far no problems are reported. Take 50 to 100 mg at night.

**Other supplement recommendations:**

- **Valerian** acts as a sedative, promotes sleep. Take 1/2 to 1 teaspoon of the tincture or 2 to 3 capsules at bedtime.

- **Kava** has a calming and muscle-relaxing effect. Take 1 or 2 tablets or capsules, 1 cup of tea, or 1/2 teaspoon of the tincture before bed.

- **California poppy** eases nervousness and may help promote sleep. Take 2 to 4 droppersful tincture before bed.

- **Calming herbs that may help promote good sleep** include catnip (*Nepeta cataria*), chamomile, linden flower (*Tilia europa*), and lemon balm. Drink 1 cup of tea or 1 teaspoon of the tincture in a little water before bedtime.

**Lifestyle and dietary considerations:** If your doctor prescribes a sleeping pill without a thorough investigation of your sleep problems, we recommend finding another doctor with enough time to properly
assess your problem. A list of things we find helpful: Avoid alcohol, nicotine, and caffeine; in your bedroom avoid light, noise, and temperature extremes; try warm baths, cold showers, biofeedback, meditation, stress reduction and relaxation exercises, restful music, or cognitive behavior therapy.

Irritable Bowel Syndrome

Unlike inflammatory bowel disease, which is associated with obvious inflammatory changes in the wall of the intestines and colon, irritable bowel syndrome (IBS) is a “functional disorder.” That means that your intestinal function is messed up, but you have no obvious signs of disease in your gut tissue and no clear explanation of your symptoms. It is often written in the plural as irritable bowel syndromes because medical science recognizes several related conditions. Candida overgrowth, parasites, lactose intolerance, food sensitivities, and reactions to normal gut bacteria have all been proposed as causes, but without convincing evidence so far. For some reason, the gut of IBS sufferers is hypersensitive to signals telling it to move food along. Spastic colon is another name for the condition. Symptoms include diarrhea, constipation, gas, bloating, cramping and pain. Chronic stress, anxiety, and depression are associated with IBS and are likely to increase your symptoms, though the severity of these symptoms varies over time and from person to person. IBS is very common in many economically developed countries, sometimes affecting up to 20 percent of the population, more commonly women. Other causes of symptoms should be carefully ruled out because they could indicate a more serious but treatable condition.

**Medical treatment:** Medical treatment, though providing some relief, is generally unsatisfactory. Drugs used include antispasmodics, antacids, antidiarrheals, antidepressants, and antianxiety medications.
That’s a lot of anti’s. Counseling, especially cognitive behavior therapy, biofeedback, and stress reduction and relaxation exercises are helpful for some people. Allergy-elimination diets may be of value.

**Supplements with scientific support:**

- **Peppermint oil**, taken as enteric-coated capsules, reduces symptoms of gas and cramping. Take 1 or 2 capsules three or four times daily, depending on severity of symptoms.

- **Probiotic supplement (acidophilus)** helps restore healthy bowel flora. Take 2 capsules in the morning and 1 in the evening with meals.

- **Peppermint tea** helps relieve gas and cramping. Drink 1 cup three or four times daily. Follow label directions for peppermint oil in capsules.

See recommended supportive supplements under “Inflammatory Bowel Disease,” all of which we find helpful for IBS.

**Lifestyle and dietary considerations:** You may find it useful to keep a journal to help identify situations and foods that trigger symptoms. Eliminating caffeine, alcohol and tobacco is often helpful. Decrease refined carbohydrates and increase fiber in the diet, especially soluble fibers like pectin in fruits. Bran has been shown in studies to reduce symptoms. Be sure to eat adequate protein. Researchers have found a link between sexual abuse and IBS, so counseling may be helpful in some cases. Biofeedback shows some success for reducing symptoms.

**Itching**

Itching is a symptom with many possible causes. *Pruritis* is the technical term for itching: another of those terms that doctors use when they have no explanation. “Hey doc, I’ve got this terrible itch.” “Ah
yes, you have pruritis.” “Well good, at least now I know what it is.” Itching is a symptom of many skin diseases like fungal or bacterial infections and is the most common complaint heard by dermatologists. Many internal diseases also have associated itching, including liver disease, kidney disease, thyroid problems, several types of cancer, and pregnancy. Many drugs may have itching as a side effect. It can even be psychogenic (all in your head). Nothing can make you itch like hearing that someone close to you has scabies, a skin parasite that creates intense itching. More rarely, itching can be due to neurologic disease. Almost any skin disease can make you itch, so with your doctor or practitioner try to determine the cause. Fungal infections, hives, atopic dermatitis, insect bites, poison ivy or oak, reactions to wool or other substances, heat rash, and dry or aging skin are some of the more common causes.

**Medical treatment:** Treatment should be directed at the underlying cause as well as the symptom. Tepid baths, starch baths, moisturizing creams, antihistamines, and tranquilizers are general approaches that may be helpful.

**Supplements with scientific support:**

👩‍⚕️**Fish oil (EPA and DHA)** help reduce chronic itching. Take 3 to 6 g of combined EPA and DHA per day in capsules or by the teaspoon.

**Other supplement recommendations:**

👩‍⚕️**Peppermint oil:** Apply a few drops to the local area.

👩‍⚕️**Cayenne tincture or liniment:** Might reduce symptoms of itching and pain. Rub in a few drops to the affected area several times daily.

👩‍⚕️**Anti-inflammatory and soothing herbal salves and creams:** Look for salves, creams or oils containing chamomile, gotu kola,
calendula, and St. John’s wort. Apply to the affected area several times daily.

Liver-cleansing herbs: Yellow dock and Oregon grape root help relieve itching due to a liver imbalance. Drink 1 cup of tea or 3 to 5 droppersful of the tincture in a little water, several times daily. For itching associated with hepatitis, take 1 or 2 capsules of milk thistle, twice daily.

Lifestyle and dietary considerations: Itching is a common symptom associated with many conditions. If itching is caused by bites or rash from poison ivy or poison oak, apply soothing herbs like fresh plantain or comfrey leaf, or a cooked oatmeal poultice to the area. Peppermint oil blended with skin-colored clay and a little salt applied locally is helpful for poison oak rashes.

Jet Lag

We all fit into the daily cycle of day and night, wake and sleep, by the action of circadian rhythms. These internal rhythms are actually slightly less than 24 hours (Circa = about; dian = a day) and are constantly adjusted to the actual day length by the daily cycle of activity and exposure to light and dark. When we travel across several time zones in a relatively short time, the internal clock gets so out of whack with the external environment that we suffer jet lag, with symptoms of sleepiness, insomnia, concentration difficulties, irritability, depression, loss of appetite, indigestion, headache, and impaired physical performance. The severity of symptoms depends on how many time zones you cross and the direction of travel. Going west to east is more difficult. It is later to the east, meaning that you will have to go to bed earlier than your normal time, when you are not yet really tired, and have to wake up earlier than normal, when you are not fully rested. This is more difficult than going to bed later than normal and getting up
later, which you have to do when travelling east to west.

Anecdotal remedies like drinking extra water or not eating during the trip may be helpful but not proven. Most people suggest attempting to fit into the cycles of your destination without delay (or even en route). This is best done by appropriate exposure to complete darkness when you are trying to sleep, and exposure to bright light (especially sunlight) and activity when it’s time to be awake in your new time zone. Social interaction and physical exercise are good activities. Some people recommend sleeping pills to fall asleep and caffeine to stay awake and to help maintain mental and physical performance. We question the wisdom of this practice.

**Supplements with scientific support:**

- **Melatonin** induces sleep and helps synchronize the sleep/wake cycle in many people. Exposure to dark increases your body’s output of melatonin. Take 500 mcg to 3 mg one to three hours before it’s time to go to sleep.

**Other supplement recommendations:**

- **Siberian ginseng (eleuthero)** helps your body adapt to stress and changes. We recommend starting with eleuthero a week before a major trip, during the trip, and for up to a week afterward. Take 2 or 3 droppersful of the tincture two times daily.

- **Reishi mushroom** calms the nervous system. Take 3 tablets or capsules two or three times daily.

- **Kava** helps relax your muscles and promote sleep. Take 2 or 3 tablets or capsules before bedtime.

**Lifestyle and dietary considerations:** Many sufferers of jet lag minimize symptoms by avoiding alcohol and caffeine during long trips. Avoid light exposure when trying to fall asleep. Wear dark glasses or eye patches if you are traveling during the time you will need to be
asleep in your new time zone. Expose yourself to sunlight in the morning in your new time zone. (Check nudity laws first.) Avoid naps. Reset your watch before arriving in the new time zone. Start to adjust meal and sleep times to your new locale before leaving home. Avoid alcohol and drink plenty of fluids on plane flights. Some symptoms are due to stiffness from lack of movement, or perhaps it’s just the airline food.
Laryngitis

Laryngitis is inflammation of the larynx or voice box, including the vocal cords. Hoarseness and difficulty talking develop when the vocal cords and the area around them become inflamed and swollen. The most common cause is infection by a virus or bacteria. Laryngitis may accompany other respiratory infections causing colds, bronchitis, or pneumonia. Overuse of the voice also may inflame the vocal cords and cause laryngitis. Allergic responses, breathing in toxic irritating substances (including tobacco smoke), and acid reflux from the stomach can also cause laryngitis symptoms. Occasionally, laryngitis is an early sign of cancer.

Medical treatment: Treatment depends on the cause. Viral infections are treated with rest and increased fluids and usually pass in ten days to two weeks. Bacterial infections may be treated with an appropriate antibiotic. Resting the voice, avoiding sports events, avoiding allergens or toxic irritants, not smoking, and treating reflux (see “Heartburn”) will help when they are involved. Cool mist or steam humidifiers may provide some relief. Sometimes, nonsteroidal anti-inflammatory drugs or acetaminophen provides relief. Cough suppressants may be used judiciously to calm an irritating cough.

Supplements with scientific support: None

Other supplement recommendations:

- **Vitamin C** reduces inflammation and helps prevent viral infections. Take 2 to 4 g per day.
- **Licorice root** has anti-inflammatory and soothing properties. Drink 1 cup of the tea two or three times daily.
Marshmallow root reduces irritation and inflammation. Drink 1 cup of the tea several times daily.

Stone root (*Collinsonia canadensis*) a traditional herb for reducing inflammation and irritation of laryngitis, helps restore your voice. Drink 2 or 3 droppersful of the tincture in a little water several times daily.

Echinacea, an immune stimulant, helps your body deal with infections. Drink 2 or 3 droppersful of the tincture in a little water, four or five times daily. (Or take 1 to 2 capsules or tablets three times daily.)

**Lifestyle and dietary considerations:** Drink lots of fluids, especially water. Throat lozenges or saltwater gargles may provide some relief. We recommend an herbal lozenge with licorice, slippery elm bark, or echinacea extracts.

**Lyme Disease**

Lyme disease is caused by varieties of spirochete bacterium that are transmitted by bites from species of very small, black-legged ticks. In the lower Midwest, the larger Lone Star tick may be a carrier. Sometimes a circular “bull’s eye” rash appears around the bite, usually within a week, but sometimes not for a month after the bite. Remember that even if you are bitten by a tick, your chance of contracting Lyme disease is only about 1 percent even in high-risk areas.

Lyme disease occurs in stages. In the early stages, flulike symptoms often occur with chills and fever, fatigue, headaches, joint and muscle pain, rash, and swollen lymph glands. In later stages, nervous system symptoms of numbness, paralysis, and arthritis may develop. Some people get these symptoms early on. In late or chronic Lyme disease, muscle and joint pain and memory and concentration problems may develop. Some damage may be permanent.
Reports of Lyme disease have increased dramatically since its discovery in 1975. Blood tests are sometimes helpful but may be inaccurate. Physicians must still rely on clinical symptoms, history, and appropriately used blood tests for diagnosis. The disease is both underdiagnosed and overdiagnosed. Lyme spirochetes are more common in ticks in the eastern and north central United States and less common in the western states. This may be because western fence lizards, which are a tick host, have a chemical in their blood that not only kills the bacteria in their own blood but also clears the infection from the tick.

**Medical treatment:** Treatment is with an appropriate antibiotic as early as possible. Some researchers advise against prophylactic antibiotics after a bite because one study showed that volunteers who did get the antibiotic treatment were only slightly less likely to contract Lyme disease than a group who got a placebo. Left untreated, Lyme disease can develop into a chronic disabling condition. A vaccine that is not 100 percent effective is now available.

**Supplements with scientific support:** None

**Other supplement recommendations:** Consult your herbalist or qualified practitioner for more herbs to slow the growth of the Lyme bacterium.

- **Antiparasite herbs**, such as the Chinese herb andrographis (*Andrographis paniculata*), may slow the growth of the Lyme bacterium. Take 3 or 4 droppersful of the tincture, three times daily for several weeks.

- **Immune stimulant herbs**, such as echinacea, wild indigo root (*Baptista tinctoria*), or osha, help your immune system fight bacteria. Take 2 to 4 droppersful of tincture two or three times daily.

- **Live culture yogurt or acidophilus** counteracts the effects of
antibiotic therapy on your gut. Take 5 to 10 billion organisms daily.

✈️ **Vitamin A** supplementation may help prevent acute arthritis associated with Lyme disease. Take 5,000 IU daily.

**Lifestyle and dietary considerations:** Not only length of time of attachment but also the method of removal of the tick may influence the risk of infection. Squeezing the tick’s body may cause regurgitation of infected blood into the host’s bloodstream. Grasp the tick firmly with fine tweezers, as closely to the head as possible, and slowly twist while gently pulling at the same time.

Preventive measures should be taken whenever venturing into the wild, even in your backyard, in areas with high levels of infected ticks: Don’t brush against grass or brush, which is where the tick nymphs lie in wait to crawl onto their host; use insect repellent; wear long-sleeved shirts; and tuck your pant legs into your boots or tape your pants to your socks. You may look like a dork, but you will be less likely to get a tick on your skin. Do whole body inspections after excursions in the bush. This can be fun with the right partner.

**Memory Loss**

Declining memory is usually blamed on aging, but is this inevitable? We would say definitely not! More often than not, memory hardly gets better with age, but in our experience, this is more from lack of mental challenge and poor circulation because of cardiovascular disease than anything else. It is true that memory cell counts often decline with age, but since we have many more than we use, this is not an insurmountable problem.

When memory loss is significant and prolonged, see your doctor for a complete physical and mental examination. Dementia is a condition
where short-term and long-term memory, abstract thinking, and judgment are all disturbed. Early stages of Alzheimer’s disease are also characterized by the inability to remember new information; in this case, memory loss is progressive. Depression can also include memory problems.

**Medical treatment:** Doctors often prescribe drugs to enhance the transmission of nerves in the brain, but the benefits are usually not lasting.

**Supplements with scientific support:**

- **Ginkgo extract** increases blood flow to the brain, improves energy access for brain cells, and improves brain cell connectivity. Take 60 to 100 mg of the standardized extract two or three times daily.

- **Huperzine A** enhances memory in Alzheimer’s patients, according to some studies. Huperzine A is an active compound from clubmoss, *Huperzia serrata*, used in China for centuries. We recommend consulting with an experienced health care practitioner before beginning on huperzine A, though an extract of the whole herb is safe enough to use on your own. Take 50 mg twice daily to start, up to 100 mg twice daily.

**Other supplement recommendations:**

- **Monounsaturated fatty acids (olive oil):** Studies have shown that increased intake protects against memory loss of aging.

- **Phosphatidylcholine (lecithin):** May produce some memory enhancement. Take 2 to 4 g daily.

- **B-complex vitamins** are said to improve memory. Take 100 mg daily of most B vitamins, except vitamin B-12, folic acid, and biotin.

- **Vitamin B-6** insures proper brain function. Take 50 mg three times daily.
**Lifestyle and dietary considerations:** Some memory problems may run in families, and of course regular and heavy use of alcohol or drugs can definitely reduce your mental clarity and impair your mental capacity. Memory can often be enhanced with a good diet, regular exercise, and a balanced supportive supplement program, while avoiding food toxins and chemicals, smoking, and excess stress. Exercising the mind helps preserve its function — the *use it or lose it* adage seems to be particularly applicable to memory. We recommend taking up a major new course of study every five years or so, such as a language, herbal medicine, art history, or learning to play a musical instrument. Practice deep breathing exercises to increase the flow of oxygen to the tissues daily.

**Menopause**

Menopause arises naturally in women as they enter the end of their child-bearing years due to loss of estrogen production from the ovaries. Women sometimes experience very mild to dramatic changes and even unpleasant symptoms from this process, such as hot flashes, fatigue, depression, insomnia, and loss of sex drive. Many women complete menopause feeling better than they did at the beginning, especially when they make it a time to learn to tap into the wisdom and power they developed throughout their lives. A heightened sense of what is healthful in life and embracing this with renewed passion can make post-menopausal years especially rich and exciting. Women who do experience symptoms sometimes opt for estrogen replacement on their doctor’s advice; however, many natural remedies and health habits support a healthy transition and reduce symptoms with increased benefits.

**Medical treatment:** Menopause is associated with other risks that include bone loss (possibly leading to osteoporosis) and an increase in
risk for cardiovascular disease. Doctors commonly prescribe HRT, hormone replacement therapy, to reduce the risk of these ailments, including horse estrogen (Premarin) and synthetic progesterone, called progestins (Provera). Major concerns that this adds to a woman’s cancer risk, specifically in the breast and uterus, make estrogen use controversial.

**Supplements with scientific support:**

- **Black cohosh** reduces hot flashes and depression and regulates estrogen activity. Take 1 capsule or tablet of the standardized extract two times daily.

- **Vitex** regulates prolactin and progesterone levels. Take 2 to 4 capsules or 1 to 2 droppersful of the tincture first thing in the morning.

- **Calcium** supports bone building and maintenance. Take 1,000 to 1,500 mg daily.

- **Magnesium** supports bone building and maintenance. Take 500 to 750 mg daily.

- **Boron** supports bone building and maintenance. Take 2 to 5 mg daily.

- **Vitamin D** supports bone building and maintenance. Take 200 to 400 IU daily.

- **Phytoestrogens** partly mimic estrogen. Take 40 mg of a product containing red clover, soy, or kudzu extract, standardized to genistein, once or twice daily.

**Other supplement recommendations:**

- **Vitamin K** increases bone mineral density. Optimally, you obtain it by eating lots of green leafy vegetables. You can also take 100 mcg as a daily supplement.

- **Zinc** helps maintain adequate bone density. Take 30 mg per
Copper helps maintain adequate bone density. Take 2 mg per day.

Dong quai, according to Traditional Chinese Medicine, is the most effective herb to help prevent anemia and bring extra blood and nutrients to the female organs. Drink 1 cup of the tea or 1 to 3 droppersful of the tincture twice daily.

**Lifestyle and dietary considerations:** Reducing or stopping alcohol use can help reduce some of the symptoms of menopause. Weight loss may also help because it releases more estrogens that were stored in the fat. Exercise, strength training, or both, are very important to maintaining health, well being, and bone mineral density in menopause. Phytoestrogens mainly from soy products, red clover, and kudzu in the diet can alleviate hot flashes and may decrease cardiovascular risk, preserve bone density, and prevent cancer. A diet high in fat and refined sugar is particularly detrimental during menopause. Note that both salt and excessive or very low protein intake increase bone loss. Smoking increases the risk of almost all menopausal problems including decreased bone density and increased risk of heart disease.

### Menstrual Cramps

Spasms of the uterus and tissues around the pelvic organs usually come at the time of menstruation with the uterine contractions. Pressure from the swollen reproductive organs (from hormonal fluid retention) can also cause back pains and referred pains to other areas. Causes for menstrual cramps may also include endometriosis, uterine fibroids, ovarian cysts, and hormonal imbalances.

**Supplements with scientific support:** None

**Other supplement recommendations:**
Magnesium may help reduce cramps. It has the most demonstrated effectiveness of any nutritional supplement for reducing menstrual pain. Take 500 mg daily.

Vitamin E: Early studies show some reduction of symptoms. Take 400 to 800 IU daily of mixed, natural tocopherols.

Vitamin B-6 helps relieve water retention associated with PMS. Take 50 mg twice daily.

Evening primrose oil effects are probably minimal. Try 4 to 8 mg capsules (500 mg each) per day.

Cramp bark (Viburnum opulus) relaxes uterine cramps. Drink 1 cup of the tea or 2 droppersful of the tincture two or three times daily.

Valerian root helps relax uterine muscles and relieve pain. It also helps with sleep and promotes calm. Take 1/2 to 1 teaspoon of the tincture two or three times daily.

Kava root helps relax cramps and body tension. It also promotes sleep and calmness. Take 2 capsules or 2 or 3 droppersful of the tincture, several times daily.

Lifestyle and dietary considerations: The menstrual period is a time of cleansing and purification. It is also a time when women need nourishment and warmth that can be generated from more cooked and concentrated foods — vegetable soups, some protein, and sprouts of seeds and beans. Fresh fruit is appropriate in the warmer months. Avoid processed foods (with dyes or food colorings, preservatives, artificial flavorings, and other additives), sugar, alcohol, and caffeine. Try to get more exercise, particularly just before your period. Most importantly of all, don’t smoke because smoking can increase painful menstrual cramping. Some women have reported increased menstrual pain during periods of trying to lose weight. In one study, researchers found that vegetarians with a low vitamin B-12 intake had increased pain during menstrual periods. Massage your lower belly with a warm herbal oil with lavender or St. John’s wort.
Motion Sickness

Motion sickness is the name for that “green” feeling when things start spinning around and your stomach rises unpleasantly into your throat. A feeling of nausea, sometimes with vomiting, is not the best accompaniment to an otherwise perfect day of sailing, but it is a fact of life for some. People commonly experience motion sickness when boating, cruising in a car (especially on windy roads), or riding fast-moving amusement park rides. The unpleasant response is influenced by the brain and nervous system effects on the equilibrium. The feeling can be learned and may be re-experienced after earlier motion problems as children, so emotional components may be involved as well. The exact mechanism and why some people have this problem is not totally clear; it occurs more commonly in women and in those who experience migraine-type headaches.

Medical treatments: Common medical treatments include antihistamines like Dramamine and anticholinergics like scopolamine patches.

Supplements with scientific support:

- **Ginger root** can combat motion sickness. Take 2 or 3 capsules of the powder or 3 or 4 droppersful of the tincture in a little water, as needed, up to four or five times daily.

Other supplement recommendations:

- **Calcium/magnesium** may help reduce susceptibility. Take 400 mg of magnesium and 800 mg or so of calcium in tablet or capsule form.

- **B-complex vitamins, especially vitamin B-6** (pyridoxine or the active coenzyme pyridoxal-5-phosphate [P-5-P]) can reduce nausea. Take 50 to 100 mg as needed; limit to twice or possibly three times daily.
**Lifestyle and dietary considerations:** You may find that avoiding food allergens or other foods that irritate or upset the stomach and digestion helps reduce symptoms. Rich and fried foods aggravate symptoms for some people. Fresh juices may be helpful, especially veggie juices with a small piece of ginger root included.

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**Mononucleosis**

A viral infection common in young people, infectious mononucleosis is called “mono” or “kissing disease” because it’s transmitted through saliva exchange. It’s usually accompanied with a sore throat and swollen lymph nodes in the neck, fatigue, poor appetite, and inflammation of the liver and spleen.

**Medical treatment:** Luckily, mono is self-limiting, and people recover within a few weeks. People on a “mono” diet with a healthier body and those without abusive habits often recover more quickly than those whose bodies are deficient and run down.

**Supplements with scientific support:** None

**Other supplement recommendations:**

- **Vitamin C** in higher amounts can help repress the virus. Take 1,000 or 2,000 mg every couple of hours up to 15 to 20 g per day if tolerated. If the bowels become loose, you should cut back. Nutritionally oriented physicians may use vitamin C intravenously with success for quicker recovery for infectious mononucleosis.

- **Echinacea**, an immune stimulant, helps clear the virus. Take 2 droppersful of the tincture every 2 to 4 hours for up to ten days.

- **Other immune stimulants** include osha root, wild indigo root, or andrographis herb extract. Take 2 droppersful of the tincture, or 1 or 2 capsules or tablets, three times daily for a week or two.
✔ **Poke root** acts as a potent immune- and lymphatic-stimulant. Take 10 to 15 drops of the tincture with echinacea, several times daily, under the advice of your herbalist or health care provider. **Caution:** can cause nausea and vomiting in higher doses than recommended.

✔ **Nutrients known to support immune function** include selenium, zinc, copper, vitamin E, beta-carotene, and the B-complex vitamins. We recommend adding nutritional yeast and/or a nutritional supplement containing a balanced blend of these nutrients with superfoods.

**Lifestyle and dietary considerations:** The diet for recovery is important. A mono diet is an immune-support diet with lots of leafy green vegetables like broccoli, collard greens, and root vegetables like carrots and beets. Avoid alcohol, fried foods, excess fats, and food and other chemicals that must be metabolized by the liver. Soups and juices are good, as are fresh fruits and vegetables, some proteins from fish or poultry, and wholesome grains and legumes as tolerated by appetite and digestion.

## Muscle Strain

Even though muscles are designed for activity, they can become injured when overstretched or strained. When you overstretch a muscle with repetitive actions or stretch a muscle too far, a muscle may be strained and may take a long time to heal. A tear in muscle fibers leads to inflammation and swelling, causing pain.

**Medical treatment:** The key is prevention; however, if a strain occurs, rest that area to reduce the inflammation. Typical treatment is the application of an immediate cold pack to reduce tissue injury, then after 24 to 48 hours, several rounds of four minutes of hot compresses alternating with one minute of cold. Doctors recommend resting the
injured muscle and taking anti-inflammatory pain medicines like acetaminophen.

**Supplements with scientific support:**

- **Arnica** helps reduce inflammation and pain. Apply the oil or liniment to the injured muscles, several times daily.

- **Horse chestnut cream** (*Aesculus hippocastanum*) helps reduce inflammation and promote healing. Apply the cream locally to the injured area, several times daily.

**Other supplement recommendations:**

- **Vitamin A** promotes healing. Take 5,000 IU per day.

- **Vitamin C** helps reduce inflammation and strengthens tissues. Take 1 to 3 g daily. Use with 400 to 800 IU of vitamin E.

- **Zinc** helps in tissue healing. Take 20 to 50 mg a day.

- **Lysine** helps in tissue healing. Take 500 to 1,000 mg daily.

- **Bromelain** helps reduce inflammation. Take 100 to 200 mg twice daily as needed.

- **Quercetin** can help reduce the inflammatory process. Take 200 to 300 mg twice daily.

**Lifestyle and dietary considerations:** Cold compresses may reduce initial swelling and inflammation. Herbal creams and gels, such as arnica and horse chestnut, can help reduce the inflammation and quicken the healing process. Structural work such as massage may also be helpful. Diet plays a minimal role once these injuries occur. A wholesome diet high in nutrients like silica, magnesium, calcium, vitamin C, and a good balance of essential amino acids helps in the healing process for most types of injuries and illnesses.
Nausea and Vomiting

See “Motion Sickness.”

Nicotine Addiction and Withdrawal

Nicotine is a commonly addictive substance in many cultures around the world. It causes many acute diseases (infections, sinusitis, bronchitis, and so on) and chronic deadly diseases (lung cancer and congestive heart failure). Nicotine tends to addict people early in life and is often close to impossible to stop. In the last decade in the United States, public outcry and local governments have made it less acceptable and more difficult to smoke in many places. Cigarette smoking is the number one factor in causing preventable disease and costs business and health industries billions yearly.

**Medical treatment:** Treatments to stop smoking include self-help groups, hypnosis, nicotine patches (as transition), and antidepressant medicines (Zyban). These drugs can provide support if you have the desire and will to quit.

**Supplements with scientific support:** None

**Other supplement recommendations:**

- **B-complex vitamins** help support nervous system function. Take 100 mg daily of most B vitamins, except vitamin B-12, folic acid, and biotin.

- **Vitamin E** works with vitamin C as a powerful antioxidant. Smokers need more antioxidants to protect their tissues against increased free radicals generated during smoking. Take 400 to 800
IU daily.

- **Vitamin C** is an important antioxidant depleted by smoking. Smokers have a greater need for antioxidants. Take 2 to 4 g daily.

- **Beta-carotene** is an important antioxidant and cancer-fighter. Smokers have lower levels in their blood. Take 5,000 IU daily.

- **Selenium** is an important antioxidant and immune-support nutrient. Take 200 mcg daily.

- **Zinc** supports immune function. Take 30 to 40 mg.

- **Lobelia** contains the alkaloid lobeline, which is similar to nicotine, to help reduce craving. It is often used in natural or herbal smoking cessation formulas. Take 10 to 20 drops of the tincture, blended with other herbs like wild oat and ginger. **Caution:** Can cause nausea in higher doses.

- **Wild oats** are traditionally used to reduce nicotine craving. Take 3 to 5 droppersful of the tincture, several times daily.

- **Licorice sticks** (*Glycyrrhiza glabra*): Chewing on this sweet root helps reduce craving for nicotine. Available from your local health food store or herb shop.

**Lifestyle and dietary considerations:** In our experience, a detoxifying, alkalinizing diet can help reduce nicotine cravings and ease the withdrawal. Alkaline foods include mainly fruits and vegetables and juices and soups made from them. Avoiding alcohol, caffeine, sugar, and refined foods may help in the transition. Maintaining other habits that correlate with smoking, such as coffee drinking, may make it harder to give up cigarettes or those other addictions. We have supervised three- to five-day fasts that have helped our patients stop smoking when nothing else would work.

**Obesity**
Obesity has become a rampant epidemic in Western society in the last 50 years and especially the last two decades. This increase is associated with the production and mega-marketing — and consumption, of course — of highly processed and adulterated manufactured foods, including fast foods typically high in calories, sugars, and fats. This rise in obesity parallels the rise in the incidence of related diseases such as diabetes and a variety of cancers. People are overeating and consuming higher numbers of calories with fewer nutrients, so they are commonly deficient in many important vitamins, minerals, and essential fatty acids that maintain health and prevent degenerative diseases. Thus, “obese malnutrition” is a common problem today, where the body overconsumes calories, but the cells are still starving for nutrition.

**Medical treatment:** Prevention of obesity is much easier than losing weight after the fact. A new study shows that babies who are exclusively breastfed are much less likely to become obese. Instilling good eating habits in children, who follow the healthy example of their parents, is the best way. Combining a low-calorie, low-carbohydrate (especially refined carbohydrate), whole foods diet with a regular exercise program is the best way to lose weight and stay trim. Going on a diet temporarily to lose weight and then returning to the old way of eating doesn’t work and may worsen the condition, leading to higher and higher weights over time. *Changing your diet for life* to one that supports your best weight is the only path to take.

Did you know that added refined sugars, products made with white flour, and white rice supply at least 40 percent of calories and 80 percent of carbohydrates in diets in the United States and some other technologically developed nations? If you want to be healthy and slim down at the same time, avoid these nutrient-poor foods like root canals without a sedative.

**Supplements with scientific support:**

- **Chromium nicotinate**, when taken along with an exercise
program, can help balance blood sugar and may help reduce sweet craving and promote weight loss. Chromium piccolinate is not as well-proven to be effective in weight-loss programs. Take 200 to 300 mcg per day.

**Other supplement recommendations:**

- **Antioxidant nutrients:** Vitamins C and E, beta-carotene, and the minerals zinc and selenium are important, especially during the weight loss period when the body is dumping more waste products.

- **Vitamin C** may be low in some obese people and may help prevent oxidation of fatty acids. Take 2 g per day.

- **Vitamin E** is often low in obese individuals and may help prevent oxidation of fatty acids. Take 400 to 800 IU mixed natural tocopherols.

- **Calcium** helps prevent bone loss that can occur during weight loss. Take 800 to 1,200 mg per day.

- **Magnesium** is often low in obese individuals and during weight loss. Take 400 to 600 mg per day.

- **Zinc** is often low in obese individuals and during weight loss. Take 30 mg per day.

- **Vitamin B-6** helps to alleviate homocysteine elevation that occurs during weight loss. Take 2 to 3 mg daily.

- **Vitamin B-12** helps to alleviate homocysteine elevation that occurs during weight loss. Take 50 to 100 mcg daily.

- **Folic acid** helps to alleviate homocysteine elevation that occurs during weight loss. Take 400 to 800 mcg daily.

- **Herbs for weight loss** include ephedra, kola nut, guarana, or green or black tea. Many herbal weight loss products contain these stimulating herbs or extracts made from them to reduce appetite and increase metabolism to burn calories faster. Use these products cautiously if you have high blood pressure, any heart
condition, insomnia, chronic fatigue, or anxiety. Herbal blood and bowel cleansers, laxatives, and diuretics are also used in many products. We recommend consulting with a health care practitioner to get a complete constitutional analysis along with an herbal and dietary program. Drink 1 cup of tea three times daily or take 2 to 3 capsules or tablets, several times daily of ephedra, kola nut, guarana, or green or black tea.

**Lifestyle and dietary considerations:** You can find a myriad of books and opinions about the best diet and supplement program to lose weight. Sugar addicts and carbohydrate abusers (breads and baked goods, pastas, cookies, and so on) can benefit quickly from a low refined carbohydrate diet (avoiding foods high in simple sugars and low in nutrients) focusing on meals of proteins and vegetables, even limiting fruits and grains. If you consider yourself a meat-and-potatoes kind of guy or gal, or you have high blood pressure or cholesterol, you can definitely benefit from a vegetarian, higher complex-carbohydrate diet, lowering saturated fat and protein intake and consuming whole grains and beans, fruits, lots of vegetables, and lean fish and poultry. Remember that each person is different, though, and you may fare better on a higher protein diet with some meat, fish, nuts, seeds, and beans. We recommend seeing your natural health care practitioner for a complete program tailored to your needs. A good way to think about foods is to consider the nutrient/calorie ratio. Eat foods with a high ratio, as in vegetables and legumes, and avoid foods with a low ratio, like potato chips, sugary sodas, and chocolate cake. A regular exercise program that improves your physical capacity over time is essential to losing weight and maintaining your optimum level. Stretching helps you stay flexible and youthful, weight work helps you tone muscles and stay trim, and aerobic activity (as in 30 to 40 minutes three or four times weekly) is essential for overall health.

**Osteoarthritis**
Osteoarthritis, the most common form of joint disorder, is the wear-and-tear arthritis of aging. Cartilage, which normally acts as a cushion at the ends of joint-forming bones, begins to break down. In response, abnormal growth occurs at the ends of the bone so that the joint surfaces are no longer smooth. The joint space narrows and ligaments that help hold the joint together weaken. This all leads to impaired joint function, with diminished range of motion, pain, tenderness, and eventually swelling and deformity of the joint. The major weight-bearing joints are commonly affected, and the spine often becomes involved. Some degree of osteoarthritis can be seen in over half of people over 65. Occasionally, injury can lead to osteoarthritis in younger people. Some genetic conditions predispose people to osteoarthritis. Jobs involving high amounts of lifting or knee bending can be a risk factor.

**Medical treatment:** Treatments include weight loss to decrease the stress on joints, regular exercise, healthy diet, and painkillers. Nonsteroidal anti-inflammatory drugs (NSAIDS) such as aspirin are often used; however, NSAIDS may hasten degeneration of the joints and irritate the gastrointestinal tract. Corticosteroids are occasionally injected in acute flare-ups but may lead to increased degeneration.

A newer drug inhibits the breakdown of collagen. For advanced joint disease, surgery may be done to free and smooth the joint space or to fuse joints in the spine, or an artificial joint may be used as a replacement.

**Supplements with scientific support:**

- **Glucosamine sulfate** helps rebuild and heal damaged and inflamed joint cartilage. Numerous studies have demonstrated its effectiveness in reducing both symptoms and pathological changes of osteoarthritis. 1,500 mg per day.

- **Chondroitin sulfate** reduces symptoms and increases range of
motion. Take 1,200 mg per day.

- **Vitamin C** at higher intake is associated with slower progression and less pain. Take 2 to 4 g per day.

**Other supplement recommendations:**

- **Vitamin D**: Low intake is associated with increased osteoarthritis. Take 400 IU per day.
- **Niacinamide**: decreases inflammation and improves symptoms. Take 25 to 50 mg per day.
- **Boron** supplementation seems to improve osteoarthritis symptoms. Take 6 mg per day.
- **Iodine** deficiency is related to degenerative joint disease. Take 150 mcg.
- **Ginger** helps support healing and reduces pain. Make a strong tea by simmering 2 tablespoons of dried ginger herb (or 4 tablespoons of fresh slices) for 15 minutes, and steep for 20 minutes. Soak a washcloth in the hot tea (don’t burn yourself!) and apply to the affected joint, twice daily.
- **Horsetail (Equisetum arvense) and nettle herb** both have anti-inflammatory properties. Take 2 or 3 tablets of a horsetail extract tablet, twice daily. Some are standardized to silicic acid, which is fine. Some products include nettle extract, which adds minerals.

**Lifestyle and dietary considerations:** Massage and physical therapy may be helpful. High-calorie diets and higher intake of saturated fat and cholesterol predispose people to osteoarthritis.

Smoking is associated with increased osteoarthritis. Osteoarthritis is associated with obesity, sedentary lifestyle, and poor fitness, so you can protect against it by doing strengthening and aerobic exercises. Incidence is not correlated with intake of vitamin C, vitamin E, or beta-carotene, but the disease can progress faster if you don’t get enough of these nutrients. A correlation exists between overall low vegetable
intake and arthritis. We recommend avoiding activities that repeatedly stress a joint. Regularly stretch and rest an often-used joint, such as your wrists when you type on a keyboard all day. Chiropractic, osteopathic, and physical therapy, which includes the many forms of massage, can all be helpful at correcting problems before they progress to chronic irritation and damage.

**Osteoporosis**

Meaning literally “porous bone,” osteoporosis is a gradual decrease of bone density and mass leading to weakness in bone structure. This makes you susceptible to bone fractures. Osteoporosis occurs mainly in postmenopausal women with estrogen deficiency. Certain drugs, such as Cortisone, Heparin, and Dilantin, contribute to the loss of bone mass and density. Genetics also play a role. Diseases that can cause osteoporosis to develop include diabetes, anorexia, bulimia, irritable bowel syndrome, liver disease, and kidney failure. Malnutrition and lack of exercise can also contribute to osteoporosis.

**Medical treatment:** Many doctors consider estrogen replacement therapy the best treatment to slow the loss of bone mass. Unfortunately, it carries with it increased risk of uterine and possibly breast cancer. Studies show that the bone-preserving effects only last for about ten years after menopause, even if you keep taking them. It’s best to stop estrogen supplements after that time because your risk of breast cancer can double after ten years. Other drugs used to treat osteoporosis are Raloxifene, Fosomax, and Didronel, which when taken over time, decrease the rate of bone loss.

**Supplements with scientific support:**

✔️ **Calcium**, along with other bone-building nutrients, helps maintain strong bones. Take 1,000 to 1,500 mg daily.
- **Vitamin D** aids in calcium absorption. It is often deficient in the elderly. Take 400 to 800 IU.

- **Magnesium** is commonly low in people with osteoporosis. Take 600 to 800 mg daily.

- **Phosphorus** helps minimize calcium loss from bones. Take 800 mg daily.

- **Vitamin K**, contained in broccoli, lettuce, and spinach can help prevent fractures. You can also take 100 mcg daily.

- **Other bone-building nutrients**: Take calcium and other bone-preserving nutrients such as silica, boron, and manganese in a supplement if possible.

- **Boron** supports bone building and maintenance. Take 2 to 5 mg daily.

**Other supplement recommendations:**

- **Red clover** contains the phytoestrogenic isoflavones genistein and daidzein, which help preserve bone. Drink 1 cup of the tea or 2 droppersful of the tincture two or three times daily. Follow label directions for capsules and tablets.

- **Nettles** helps keep bones strong. Contains high levels of easily assimilated calcium. Drink 1 to 2 cups tea two or three times daily.

- **Alfalfa** contains a high amount of minerals and phytoestrogens (plant-based estrogens). Drink 1 cup tea two or three times daily or follow label directions for capsules and tablets.

- **Horsetail** strengthens bone, hair, teeth, and nails. Drink 1 cup tea or 2 to 3 droppersful of the tincture two or three times daily. Follow label directions for standardized extracts.

**Lifestyle and dietary considerations**: Bone building and maintenance in youth and early adulthood, through both adequate exercise and a healthy diet, are extremely important in preventing osteoporosis. Lack of physical activity in children has been shown to be a major factor in
low bone density. Engaging in weight training and weight-bearing exercises, such as walking, for at least 30 minutes several times a week slows bone loss. It is also important to get enough calcium in your diet by regularly eating some of the following foods: greens, such as spinach, collards, kale, mustard, and turnip; yogurt and cheese; and tofu and sesame seeds. Coffee and soft drinks interfere with the absorption of calcium, so it is best to avoid those.

Parasites

Parasitic infections are much more common than you might think, and also underdiagnosed. Common parasitic problems in the western world come from infestation with amoebas, particularly *Entamoeba histolytica* and *hartmani*, *Giardia* (*Giardia lamblia*), worms such as pinworms (*Vermis vermicularis*) and roundworms (*Ascaris lumbricoides*), and more recently, blastocystis (*Blastocystis hominis*), which causes dyspepsia, diarrhea, and carbohydrate intolerance in some people. Parasites can cause a wide variety of digestive disorders, with symptoms like indigestion, gas and bloating, abdominal pain, nausea, diarrhea, and inflammatory problems that act like colitis. Other problems may result from hidden parasitic infections. These include an increase in allergic disorders, nutritional deficiencies from inadequate digestion and lowered assimilation of nutrients, mental and emotional swings from toxins released into the blood stream from the gut, fatigue, and headaches. Parasites are also implicated in some autoimmune disorders, such as rheumatoid arthritis. Exposure to parasites can come from contaminated food and water, sexual contact, and from animals as in cats, dogs, and pet monkeys. Some parasites are difficult to identify during an examination, so you may want to consult a lab that specializes in parasite detection, such as Great Smokies Laboratory, 63 Zillicoa Street, Asheville, NC 28801; phone 800-522-4762. Most labs cannot find them with the usual lab technology or the microscopes
typically used.

**Medical treatment:** Treatment involves the use of strong antibiotics, specifically antiparasitics. Metronidazole (Flagyl), paramomycin (Humatin), and iodoquinol (Yodoxin) are the most common ones used in the United States. Drugs are often needed to eradicate parasites, particularly when they don’t readily respond to herbal therapies. However, herbs are definitely preferred as the first line of treatment. Humatin is the least toxic drug, if it is appropriate, and Yodoxin next. Flagyl should be a last resort because it is the most toxic. We strongly recommend seeing your doctor or qualified health care practitioner for a proper diagnosis and treatment plan.

**Supplements with scientific support:** None

**Other supplement recommendations:**

- **Probiotic bacteria** helps you maintain a healthy bowel environment to discourage growth of parasites. Take 2 capsules in the morning and 1 in the evening.

- **Multivitamin mineral supplement** helps your body maintain optimum levels of all the vitamins and minerals if you are infected with parasites. Take 2 or 3 capsules or tablets daily, or as directed on the label.

- **Black walnut** helps discourage parasite growth. Take 2 or 3 capsules, or 4 to 5 droppersful of the tincture, two or three times daily as needed.

- **Antiparasitic herbs:** Herbs such as sweet Annie (*Artemesia annua*), quassia bark (*Picrasma excelsa*), and wormseed (*Chenopodium ambrosiodes*) tincture are sometimes recommended by herbalists, and are found in commercially available products, Be careful with these herbs, as they are mildly toxic. Consult your herbalist before using them.

- **Garlic** helps prevent parasites and slows their growth. Take 2
pearls or 1 or 2 cloves twice daily.

✔️ **Grapefruit seed extract** may inhibit intestinal pathogens. Take 150 mg three times daily.

**Lifestyle and dietary considerations:** We recommend a diet low in both natural and added sugars. Avoid processed foods (with dyes, food colorings, preservatives, artificial flavorings, and other additives), desserts, fruit juices, and sodas so as not to encourage parasite growth.

## Pneumonia

Pneumonia is an infection within the lung tissue, a deeper and more dangerous result of an upper respiratory infection such as a cold or sinus infection that has progressed into the lungs. Older people and immune-depressed people are more susceptible to pneumonia. It usually occurs with fever, cough, shortness of breath, especially with any activity, and subsequent lack of endurance. Pneumonia commonly involves a bacterial infection, which often requires antibiotic treatment. It may also result from viral infections, often referred to as “walking pneumonia” because people are usually not as incapacitated as with bacterial pneumonia. A vaccine is available to protect against the most common pneumococcal (the pneumococcus bacteria) pneumonia, which most often occurs in elderly and debilitated people, or with oversedation from drugs and alcohol. Fungal pneumonia may also occur, however, but usually in immune-compromised individuals.

**Medical treatment:** Medical treatment for pneumonia involves antibiotics, which kill the bacteria at the base of the infection. Rest and natural therapies are most useful for treating viral pneumonia, and will help with the recovery of any infection.

**Supplements with scientific support:**
Vitamin C improves outcome for pneumonia patients. Take 1 to 2 g per day.

Vitamin E helps protect lung surfactant in pneumonia and may aid recovery. Take 400 to 800 IU per day.

Zinc low zinc levels impairs your ability to fight off infection. Take 30 to 60 mg per day. (Use zinc lozenges if you have a cough or sore throat.)

Other supplement recommendations:

Acidophilus and other probiotics helps ameliorate harmful effects of antibiotics on gut flora. Take 9 billion organisms daily: 2 capsules in the morning and 1 in the evening.

Usnea lichen (Usnea species) has antibiotic compounds that are especially effective to help kill the bacteria associated with pneumonia. Take 2 to 4 droppersful of the tincture two or three times daily. Take with echinacea.

Osha root acts as an expectorant and antiviral. Take 20 to 30 drops of the tincture three or four times daily.

Echinacea root has immune-stimulating and antiviral properties. Take 2 to 3 droppersful of the tincture, up to every hour during serious infections, or three or four times daily for mild infections.

Yerba santa and grindelia, herbal expectorants, clear mucus congestion and reduce infection. They are also helpful for relieving coughs. Take 2 to 4 droppersful of the tincture several times daily.

Lifestyle and dietary considerations: A diet to fight pneumonia should be nourishing and easy on your system. Soups with added spices, such as garlic, ginger, and cayenne, can help with circulation and healing. Additional fresh garlic has antibiotic and antiviral qualities. Adequate proteins, lots of fresh vegetables, and some grains and legumes provide the basics. Avoid heavy foods like fried meats,
congesting creams and sauces, breads, and sugary foods.

**Premenstrual Syndrome (PMS)**

PMS is a set of symptoms directly related to the changing levels of hormones during the menstrual cycle. After ovulation and just before the onset of menses, progesterone, estrogen, and serotonin levels drop sharply, resulting in symptoms like emotional irritability, anxiety and depression, food cravings (especially for sugar and chocolate), fluid retention that leads to pelvic pain and breast tenderness, and other pains, particularly in the back. Other symptoms like insomnia, constipation, and acne can worsen as these hormones drop, improving after menses.

**Medical treatment:** PMS is often treated medically with birth control pills, or more progressively with oral or topical progesterone at appropriate times of the month, specifically in the last two weeks of the cycle before bleeding. Today, doctors commonly prescribe selective serotonin reuptake inhibitors like Prozac and Zoloft.

**Supplements with scientific support:**

- **Magnesium** reduces fluid retention symptoms and mood symptoms. Take 500 to 750 mg per day.

- **Calcium** reduces symptoms, especially when used over several cycles. Take 800 to 1,200 mg per day.

- **Pyridoxine (vitamin B-6)** helps relieve water retention. Take 50 mg twice daily.

**Other supplement recommendations:**

- **Manganese** may help with some menstrual symptoms in PMS patients. Take 5 mg daily.
Vitex fruit regulates hormones. Take 1 to 2 droppersful tincture or 2 to 4 capsules daily.

Dandelion or burdock root supports the liver to regulate estrogen balance. Drink 1 cup of the tea or 2 to 4 droppersful of the tincture two or three times daily.

Lifestyle and dietary considerations: A high-quality diet can lessen symptoms, whereas stress, frequent consumption of sugar, alcohol, and drugs can worsen symptoms. Women can often reduce symptoms significantly by increasing complex carbohydrates before and during the menses, and lowering carbohydrates and increasing proteins for the 2 weeks after the flow stops. Meditation, yoga stretching, and exercise daily all help reduce symptoms.

Psoriasis

Psoriasis is an autoimmune disease involving activation of certain cells of your immune system, which trigger inflammation and increased production of skin cells. Slightly raised, red-silvery, scaly patches occur commonly over the elbows, legs, and on the scalp. Psoriasis tends to run in families and is more common in men. Climate change, stress, infections, dry skin, allergic contact dermatitis, and some medications — including beta blockers and nonsteroidal anti-inflammatory drugs (NSAIDS) such as ibuprofen — may trigger or worsen psoriasis.

Medical treatment: Doctors consider three levels of treatment: topical, phototherapy (treatment with drugs and light), and systemic treatment. The choice of treatment varies with severity. Treatments are often changed and rotated over time because the effectiveness often does not last. As with most persistent diseases with fluctuating severity, practitioners recommend numerous treatments. These range from soothing ointments to immune-suppressive drugs.
Supplements with scientific support: None

Other supplement recommendations:

- **Beta-carotene**: Decreased intake has been associated with symptoms. Take 5,000 IU twice daily.
- **Vitamin D**: Topical application may reduce symptoms.
- **Selenium**: Sufferers have lower blood levels of selenium. Take 100 mcg twice daily.
- **Fish oils**: Help to prevent side effects of retinoid prescription drugs used to treat psoriasis when taken together and administered intravenously. They don’t work topically. Purified EPA may work when administered over long periods.
- **Vitamin B-12**: Depleted by the immune-suppressing drug methotrexate used in severe psoriasis. Take 5 mcg daily.
- **Folic acid**: Depleted by the immune-suppressing drug methotrexate used in severe psoriasis. Take 800 mcg daily.
- **Milk thistle**: Reduces symptoms in some psoriasis sufferers. Take 1 or 2 tablets of standardized extract or 2 to 4 droppersful of the tincture two or three times daily.

Lifestyle and dietary considerations: Food allergies and the wrong balance of fats in the diet may contribute. Try adding more flaxseed and fish oils and reducing all other oils except olive oil. Avoid trans fatty acids from hydrogenated fats, and use good quality oils in the diet, especially cold-pressed organic flaxseed oil. According to some studies, psoriasis sufferers may eat higher levels of saturated fats. In one study, when 316 psoriasis patients were evaluated for food intake, researchers found that symptoms were related to lowered intakes of carrots, tomatoes, and fresh fruits.

Shingles
Shingles is a viral infection of nerve roots in your body that manifests itself as a painful, blistering rash on the skin in the area of the affected nerve. It is caused by *Herpes zoster*, the same virus that causes chicken pox. Often associated with fever and fatigue, the pain and rash can be prolonged (intense or mild), and the course of infection can be difficult to treat. Anything that weakens your immune response may trigger an attack, including stress, trauma, and aging.

**Medical treatment:** Most people have no residual effects and require no special treatment other than symptom relief during the attack, usually with topical or oral pain relievers. Occasionally, and more frequently in older people, pain may be prolonged for months or even years as post-herpetic neuralgia (PHN). Some studies indicate that early treatment with antivirals, including interferon, may reduce the incidence of PHN. The only treatments shown to be effective for PHN are tricyclic antidepressants and capsaicin ointment. Conventional medical treatment involves pain medications and antiviral ointments and tablets.

**Supplements with scientific support:**

- **Capsaicin cream or cayenne liniment** help relieve pain. Apply topically as directed on label.

**Other supplement recommendations:**

- **Lysine** may reduce viral activity. Take 500 to 1,000 mg three times daily.

- **Vitamin C** in high doses has antiviral effects. Take 2 to 5 g daily, up to 10 or 15 g if tolerated.

- **Vitamin E** helps with pain. Take 800 to 1,200 IU daily.

- **St. John’s wort oil** reduces inflammation and pain. Apply topically several times daily.

- **Herbal antivirals:** Add 2 to 4 droppersful of St. John’s wort or
calendula tincture to a little water and drink several times daily. Or drink 1 cup of lemon balm tea several times daily.

**Lifestyle and dietary considerations:** The detox diet can help relieve some pain and inflammation. Eating foods higher in the amino acid lysine (such as legumes, and many vegetables) and lower in arginine (nuts, seeds, and chocolate) may be helpful. Stress management and relaxation are also recommended.

### Sinusitis

Sinusitis is an acute bacterial or viral infection of the sinuses. Chronic and recurrent infections of the sinus area are becoming more common, possibly because of airborne pollutants, and are more difficult to treat effectively. (See “Infections, Recurrent” for other factors of concern.) The increasing incidence of sinusitis may be partly due to increased consumption of mucus-forming foods like sugars, breads, cheeses, and fried foods, along with reduced immune status of the body and mucous membranes from both inhaled and ingested chemicals. Nutritional deficiencies that can weaken immune responses are likely to play a role in many cases.

Sinus congestion makes it easier for bacteria to establish an infection. Sinusitis can be painful and debilitating, and also recurrent, because it is difficult to clear totally. It can be associated with fever and yellow nasal discharge, as well as pain from pressure applied to the face over the sinus areas. Antibiotics and decongestant medications are typically used, but success often requires repeated or extended treatments. Dietary changes along with improved health habits and natural therapies often help create better results.

**Supplements with scientific support:** None
Other supplement recommendations:

✓ **Vitamin C** helps your body fight infections. Take 500 to 1000 mg, two to three daily.

✓ **Quercetin** helps reduce inflammation. Take 100 to 250 mg three times daily.

✓ **Zinc** supports immune function. Take 15 to 30 mg daily.

✓ **Echinacea** helps eliminate infections. Take 2 droppersful to 1 teaspoon of the tincture three or four times daily.

✓ **Golden seal** reduces inflammation and slows bacterial growth. Take 1 to 2 droppersful of the tincture or 1 to 2 capsules, two or three times daily.

✓ **Garlic** helps rid the body of infections. Garlic has an antibiotic effect. Take 2 to 4 pearls of a garlic product daily or 1 or 2 cloves twice daily.

**Lifestyle and dietary considerations:** The diets that can help prevent and treat sinus problems include the detox diet and the allergy-elimination diet because these help reduce food reactions and congestion in the body so that people can breathe more freely and reduce the incidence of infections. Drinking a lot of fluids, especially water, is important. Drinking 6 to 12 ounces of fresh juices daily is cleansing and helps reduce mucus. Eat mostly fresh fruit and vegetables for 10 days to 2 weeks. Add a generous amount of garlic, onions, cayenne, and horseradish to your food to help clear your nasal passages. Try grating some horseradish and holding a small amount in your mouth. Other therapies that can help include acupressure, acupuncture, and aromatherapy.

**Sore Throat**

Sore throat is a common problem related to colds and flu from viruses
(also mononucleosis), bacterial infections like strep throat, allergic reactions to foods and environmental agents, and toxic reactions to inhaled chemicals. The infectious problems can be contagious. See a doctor if your temperature goes over 103 degrees Fahrenheit or if you have significant difficulty in swallowing. Medical treatment involves antibiotics for bacterial infections (a throat culture can tell if it’s bacterial). We recommend getting plenty of rest and fluids.

**Supplements with scientific support:**

U **Zinc acetate lozenges:** Suck on lozenges several times daily. They can help reduce symptoms faster, but studies are contradicting.

**Other supplement recommendations:**

U **Vitamin C** helps relieve symptoms and support immune function. Take 2,000 mg per day.

U **Vitamin E** decreases inflammatory response and enhances immunity. Take 400 to 800 IU daily.

U **Herbal gargles** help soothe and reduce irritation. Gargle several times daily with myrrh gum (*Commiphor molmol*) or golden seal tincture diluted in water as an antibacterial, warm marshmallow or licorice root teas, or cool sage leaf (*Salvia officinalis*) tea. Even gargling salt water can help.

U **Echinacea root and leaf** is an immune stimulant that helps your body fight infection. Take 2 to 3 droppersful of the tincture three to four times daily.

**Lifestyle and dietary considerations:** Avoid any irritating foods (walnuts, spinach, etc.) or allergenic foods (milk products, wheat, etc.). The detox diet can help resolve throat congestion and inflammation. Gargling with salt water or sage leaf tea is beneficial in our experience. One of our favorite remedies is a teaspoon of honey in a tablespoon filled with fresh squeezed lemon juice and a pinch of cayenne pepper.
Sprains and Strains

Muscles and ligaments, especially the tissues around joints, can become torn and inflamed, commonly called “sprains and strains.” Officially, sprains affect joints (really the ligaments that hold them together), and sprains describe muscle injuries, as in fiber tears. Knees and ankles are common injury areas, as are the neck and lower back. Medical treatment involves evaluation and x-rays to make the diagnosis, heat and cold packs to improve circulation or reduce swelling, and anti-inflammatory and pain medicines. Certain injuries to joints or ligaments may also be repaired surgically. Acupuncture and massage can aid the healing process.

Supplements with scientific support: None

Other supplement recommendations:

- **U Vitamin C** helps with anti-inflammatory healing and reduces muscle soreness. Take 2 to 4 g per day.

- **U Vitamin B-6** may enhance pain medication. Take 50 mg per day.

- **U Vitamin B-1** may enhance pain medication. Take 50 mg per day.

- **U Vitamin B-12** may enhance pain medication. Take 250 mcg per day.

- **U Vitamin B-2** may decrease neuromuscular irritability. Take 50 mg per day.

- **U Vitamin E** has been shown to enhance tendon healing in animals. Take 400 IU per day.

- **U Glucosamine** may help in connective tissue repair. Take 1,500
mg per day.

**U Magnesium** may provide some relief from sprains and strains. Take 500 mg per day.

**Lifestyle and dietary considerations:** The diet is not terribly instrumental for acute problems, but for chronic irritation or inflammation, some level of detoxification may help. Basically, a diet that includes nourishing foods and all the right nutrients can help in the healing process. Remember RICE for acute injuries; it stands for rest, ice, compression, and elevation. Acupuncture treatments often provide relief.

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**Tendinitis (Also Tennis Elbow)**

Tendinitis is an inflamed tendon (the fibrous bands of tissue that connect a muscle to a bone) that is often tender and painful, usually due to repetitive activity of one joint. Tennis elbow is one example of tendinitis. You may experience only slight swelling around the joint. Stretching and other warm-ups are preventive, as are resting and massaging any overused areas. Make sure your movements are balanced and not too severe. For instance, a key cause of tennis elbow is an imbalanced stroke.

An MRI (magnetic resonance imaging) can help diagnose this problem, but this expensive test is not needed other than for chronic and unclear situations. The RICE treatment — rest, ice, compression (an elastic sports wrap), and elevation — is applied to reduce swelling and pain. Anti-inflammatory medications are usually helpful if necessary.

**Supplements with scientific support:** None

**Other supplement recommendations:**
**U Vitamin C** supports tissue healing. Take 1,000 to 2,000 mg daily.

**U Vitamin E** supports tissue healing. Take 400 to 800 IU daily.

**U Bromelain** helps reduce inflammation. Take 200 mg tablets or capsules, twice daily.

**U Silica** (from horsetail extract) helps your body strengthen and regenerate connective tissue. Follow label directions, although a general dose is 250 to 500 mg daily.

**U St. John’s wort oil** reduces pain and inflammation, and may help reduce pain of nerve trauma. Apply to affected area several times daily.

**U Teasel root** (*Dipsacus japonica*) speeds healing of strained tendons. Take 2 capsules or a cup of tea, twice daily.

**U Herbal compresses** accelerate healing. Apply compresses of hot ginger root tea to the affected area several times daily.

**U Cayenne liniment or cream** helps reduce pain. Apply several times daily.

**Lifestyle and dietary considerations:** Acupressure and acupuncture can be helpful in reducing pain and healing irritated areas. Eat plenty of fresh vegetables and make sure to get adequate protein from fish, beans, nuts, and seeds.

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**Tinnitus (Ringing in the Ears)**

Tinnitus refers to a continuous or intermittent noise in the ear or ears, usually a high-pitched ringing, or a buzzing roar, hissing or whistling. The noise often varies in strength, depending on stress levels and noise exposure. The problem is common and may affect over 50 million in the United States, with 12 million a year seeking medical help. Tinnitus can be especially bothersome if it affects your sleep. May be associated
with hearing loss and is often related to high blood pressure, low thyroid function, or even more commonly from prolonged exposure to loud noises (music, chain saws, leaf or snow blowers, and so on). Tinnitus can also be a side effect of drugs, such as aspirin or antibiotics, an ear infection or blockage of the ear canal with ear wax. However, the cause for many cases of ear noises is largely unknown. An examination and possibly X-ray or MRI could reveal any underlying cause, but usually a good history reveals relevant factors such as exposure to loud noises. As suggested however, an underlying cause is not always found. Medications are not effective although lidocaine has shown success in some people.

**Supplements with scientific support:**

- **Ginkgo leaf extract** improves blood circulation and reduces inflammation related to an autoimmune reaction. Two capsules of the standardized extract has proven effective in a few studies. (Or take 60 to 100 mg three times daily.)

**Other supplement recommendations:**

- **Vitamin B-12** is shown to be a deficiency in some cases of tinnitus. Take 50 to 150 mcg.

- **Zinc** can help when levels are low, but not when normal blood levels exist. Take 20 to 40 mg daily.

Food or other allergies leading to chronic low-grade inflammation of the inner ear might be a main factor. Try eliminating common allergens like milk, wheat, eggs, and soy for up to a month to see if symptoms reduce. Alcohol use can make the ringing worse, as can caffeine, smoking, and stress. Acupuncture and acupressure prove helpful for some.

**Vaginitis: Yeast, Trichomonas,**
Bacterial Vaginitis is the inflammation of the vaginal canal and surrounding tissues from infectious irritations, friction from sexual activity, and allergic reactions to douches, spermicides and jellies, soaps and laundry chemicals. Overgrowth of the yeast-like organism, *Candida albicans*, is the most common vaginitis, followed by bacteria, including gonorrhea or gardnerella (hemophilus), and protozoal with trichomonas. Chlamydia infection is also common. These infections may cause various discharges, sometimes smelly or yeasty.

The problem is diagnosed by exam, culture or microscopic evaluation for associated organisms and appropriate treatment. Antibiotic creams and pills such as nystatin or metronidazole (Flagyl) are commonly used. Ideally for a local problem, you want to use a local remedy, which has much less risk of side effects.

**Supplements with scientific support:** None

- **Echinacea** acts as an immune stimulant. One study showed women had less recurrent vaginal yeast infections with echinacea. Take 2 to 4 droppersful of the tincture, several times daily.

**Other supplement recommendations:**

- **Garlic** can discourage growth of candida and other organisms. Take 1 or 2 pearls, twice daily.

- **Golden seal or Oregon grape root** can be used as a douche to reduce infection. Also take 2 or 3 droppersful, up to three times daily.

- **Acidophilus and other beneficial “probiotic” supplements** are often effective as a douche or orally to help your body eliminate infections and prevent recurrences. Dissolve 2 or 3 capsules in a little warm water and use a douching bulb to rinse the vagina, once or twice daily. Or take 2 capsules (keep them
refrigerated) in the morning and 1 in the evening daily.

**Lifestyle and dietary considerations:** The diet is more important for recurrent or chronic infections, where a wholesome, nutrient-rich diet keeps the tissues and immune system strong. A diet low in sugars helps to discourage candida yeast growth. Wearing natural fiber underwear ensures proper air flow, and regular hygienic practices especially related to washing may help in some cases.

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**Varicose Veins**

Varicose veins are dilated veins in the legs that occur from weak vein walls due to genetic plus nutritional deficiencies, and a breakdown of the venous valves that prevent backflow of blood. Other causes include an increased pressure in the veins of your legs through your abdomen as a result of pregnancy, standing on your feet continuously, obesity and overweight, chronic constipation, and liver congestion. Hemorrhoids are also a type of varicose veins around the anus. The prominent, dark blue dilated veins in the thighs, legs, and feet can sometimes be painful. If they become red or become increasingly tender, see a doctor as they can develop blood clots in them. Women have them about twice as much as men, possibly linked with pregnancy, with over 10 and 20 percent, respectively, of adult men and women having varicosities.

**Medical treatment:** Medical treatment involves pressure support hose, pain relievers if needed (aspirin works well), injections with various substances, including hypertonic saline, which shrinks the veins, and as a last resort, surgical removal of the unsightly veins.

**Supplements with scientific support:** None

**Horse chestnut** eases pain and swelling of veins, and benefits
varicosities. Take 1 capsule of the extract two or three times daily.

Other supplement recommendations:

**Vitamin C** supports vein strength. Take 1,000 mg daily.

**Bioflavanoids** support vein strength. Take 100 to 200 mg twice daily with vitamin C.

**Ginkgo** increases blood flow through the legs and helps prevent leakage from the vessels. Take 60 mg two to three times daily.

**Vitamin E** works with vitamin C as an antioxidant to help prevent tissue damage. Take 400 IU daily.

**Butcher’s broom** (*Ruscus aculeatus*) improves circulation. Drink 1 cup of the tea or take 2 to 3 capsules two or three times daily.

**Witch hazel** (*Hamamelis virginiana*) tightens the veins. Apply a liniment to the affected areas twice daily. Take 3 or 4 droppersful of the tincture (not the liniment that contains isopropyl alcohol!) twice daily.

**Lifestyle and dietary considerations:** Your diet might be very important — a nutrient-rich, high-fiber diet works to maintain normal weight and prevent constipation. Avoid obesity (and excessive weight around the middle), high amounts of fats, and excessive alcohol, which seems to weaken blood vessel strength. Drink plenty of water and eat fresh fruits and vegetables to support body tissue resiliency. Foods high in flavonoids include citrus and its pulp, most berries, rose hips, buckwheat kernels, and sprouts. Once veins dilate and become dark, they are harder to clear with natural means. As with many nutritional relationships to diseases, prevention is often more effective than treatment. Regular walking and leg stretches and maintaining an ideal weight are essential.
Appendix

Resources

Vitamin Products

If you don’t live in an area where natural foods stores and vitamin shops abound, you can order most of the supplements listed in this book from the following online and mail order companies.

**AllHerb.com** 14800 Sweitzer Lane Suite 104 Laurel, MD 20707-2915 877-all-herb (255-4372) [www.allherb.com](http://www.allherb.com) *Herb supplements, vitamins, teas, expert information*

**Alacer Corporation** 19631 Pauling Foothill Ranch, CA 92610 800-854-0249 *Makers of good vitamin C products, including the popular Emergen-C powder*

**Bronson Pharmaceuticals** 4526 Rinetti Lane La Canada, CA 91011-0628 800-521-3323 in CA 800-521-3322 *Makers of vitamin and mineral preparations*

**Eclectic Institute** 14385 SE Lusted Rd. Sandy, OR 97055 800-332-4372 *Nutritional supplements and herbal extracts*

**Enzymatic Therapy** 825 Challenger Dr. Green Bay, WI 54311 800-888-4585 *Nutritional and herbal supplements*

**Flora, Inc.** 805 E. Badger Rd. Lynden, WA 98264 800-446-2110 *Distributors for the Floradix herbal nutrient/iron formulas from Europe*

**Freedo** 36 E. 41st St. New York, NY 10017 800-777-3737 *Wide range*
of vegetarian-based nutritional products available through mail order

**Herb Pharm** P.O. Box 116 Williams, OR 97544 800-348-4372 Herbal tinctures and salves

**Klaire Labs/Vital Life** 1573 W. Seminole San Marcos, CA 92069 800-533-7255 Extensive line of nutritional supplements and probiotic products

**New Chapter** 22 High St. Brattleboro, VT 05301 802-257-0018 Vitamins, herbs, and body care products

**Nutricology** 450 Preda St. San Leandro, CA 94577 800-545-9660 Wide variety of hypoallergenic, advanced nutritional supplements

**Nutrition Resource** P.O. Box 238 Lakeport, CA 95453 Non-allergenic powdered supplements

[www.planetrx.com](http://www.planetrx.com) Vitamins, herbs, and nonprescription drugs

**Rainbow Light** P.O. Box 600 Santa Cruz, CA 95060 800-635-1233 Tinctures, caplets, and nutritional systems

**Source Naturals** 23 Janis Way Scotts Valley, CA 95066 800-777-5677 Vitamin and herbal products

**Spectrum Naturals** 133A Copeland Petaluma, CA 94952 707-778-8900 High-quality oils

**The Vitamin Garden** 92 Summit Way Syosset, NY 11791 voice mail 516-364-8606 order toll-free 877-466-7432 [www.vitamingarden.com](http://www.vitamingarden.com) Has over 11,000 products and 420 manufacturers

**The Vitamin Shoppe** 4700 Westside Ave. North Bergen, NJ 07047 800-223-1216 [www.vitaminshoppe.com](http://www.vitaminshoppe.com) Vitamin and herbal supplements online and through its catalog
Way of Life 1210 41st Ave. Capitola, CA 95010 831-464-4113
www.wayoflife.net Vitamins, herbs in bulk, salves, tinctures, and so on

www.vitaminsforlife.com Vitamins, herbal products, bulk herbs, nutritional products you can search by manufacturer or category

Wellness Health 2800 S. 18th St. Birmingham, AL 35209 800-227-2627 Large distributor of products from many companies

Online Vitamin and Herb Information

You can access the following Web sites for the latest news about herbs and nutrition.

www.allherb.com Information about herbal and vitamin supplements and health issues; health advice from experts in alternative medicine

http://dietary-supplements.info.nih.gov Database of accumulated scientific studies on dietary supplements

www.cyberdiet.com/footfact/vitmins/vitmins.html Recommended daily allowances for vitamins and minerals

http://www.heall.com Alternative medicine resources

www.healthyideas.com/cooking/news/more.html#vit?rn Information on diet, health, and vitamins

www.alt-health.com Links to an extensive list of other health sites

Associations
Contact the following organizations for information on finding alternative practitioners, new research on alternative health, and schools and correspondence courses.

**American Association of Naturopathic Physicians** 2366 Eastlake Ave. East, #322 Seattle, WA 98102 206-298-0125 *Provides a referral directory of naturopaths*

**American Herbalists Guild** P.O. Box 70 Roosevelt, UT 84066 435-722-8434 [www.healthy.net/herbalists](http://www.healthy.net/herbalists) *Publishes directory of herbal education for $8*

**Herb Research Foundation** 1007 Pearl St., Suite 200 Boulder, CO 80302 303-449-2265 *Provides online database searching and scientific articles*

## Periodicals

The following magazines, journals, and Web sites provide you with information on various health topics.

**Clinical Pearls News** 3301 Alta Arden, #3 Sacramento, CA 95825 916-483-1085 [www.clinicalpearls.com](http://www.clinicalpearls.com) *Information and scientific studies on nutrition and preventive medicine; also available on disk*

**Herbalgram** P.O. Box 201660 Austin, TX 78723 800-373-7105 custserv@herbalgram.org


**Journal of Alternative and Complementary Therapies** [http://www.liebertpub.com](http://www.liebertpub.com) *Covers mind-body medicine, botanicals, acupuncture, Chinese medicine, nutrition, vitamin therapy,*
homeopathy, behavioral therapy, and other nonconventional holistic health specialties

**Nutrition Health Reports** [www.nutritionhealthreports.com/index.html](http://www.nutritionhealthreports.com/index.html)  
Online reports on nutrition and health with a monthly subscription

**Townsend Letter for Doctors and Patients** 911 Tyler St. Port Townsend, WA 98368 360-385-6021 info@tldp.com  
Information about alternative medicine written by researchers, health practitioners, and patients

**Education**

**Institute for Educational Therapies** 915 River St. Santa Cruz, CA 95060 831-457-1207  
Nutrition consultant training program; on site and home study courses

**Software**

**Nutricircles® Nutrient Content Software for Windows 9 5/98/NT**  
Strickland Computer Consulting Valley Center, CA 92082 760-749-0037  
See samples and free demo at: [www.cm.utexas.edu/faculty/williams/nutri.htm](http://www.cm.utexas.edu/faculty/williams/nutri.htm)  
Graphical and tabular data for over 2000 foods and up to 75 nutrients. Combines foods into meals, recipes, and diets. Offers powerful searching.