After studying the material in this chapter, you should be able to

- Distinguish between traditional and nontraditional forms of health care and the associated risks/benefits.
- List types of home health tests.
- Describe common medical exam procedures and medical tests.
- Relate oral health to overall health and discuss good oral care.
- List your rights as a medical consumer.
- Describe the doctor-patient partnership, including choosing/evaluating your primary care physician.
- Compare and contrast the different types of health-care practitioners and health-care facilities.
- Evaluate your role in your own health care, including self-care.
Long after she immigrated to the United States from India, Tapu’s grandmother refused to go to Western doctors. She preferred practitioners who used the herbs and techniques she had relied on in her homeland. Tapu’s father, an American-trained physician, would argue with his mother-in-law about what he considered her old-fashioned views. As a doctor’s daughter, Tapu grew up believing in the superiority of Western medicine.

Traditional and Nontraditional Health Care

In her sophomore year at college, Tapu found out that she needed oral surgery. To her surprise, the oral surgeon suggested an alternative method of controlling postoperative pain: acupuncture. “My dad’s never going to approve,” she said. “And he’s the one who’s still paying my medical bills.” The doctor referred Tapu—and her father—to recent studies conducted by National Institute of Health researchers on acupuncture’s efficacy in relieving postsurgical pain. After doing more research online, Tapu agreed to try acupuncture following her operation.

Like Tapu, millions of Americans are turning to complementary and alternative medicine (CAM), a term that includes a broad range of healing philosophies, approaches, and therapies not traditionally taught in medical schools or provided in hospitals. But consumers are learning that they have to be just as savvy—and skeptical—about these therapies and practitioners as they are with any other form of health care.

By describing most of today’s many health-care choices, this chapter, particularly “Health Assurance” in Making Change Happen and Labs for IPC, will help you take greater responsibility for your personal well-being. Whether you are monitoring your blood pressure, taking medication, or deciding whether to try an alternative therapy, you need to gather information, ask questions, weigh advantages and disadvantages, and take charge of your health. The reason: No one cares more about your health than you and no one will do more to promote your well-being.

Quality Health Care

Quality matters in health care perhaps more than anywhere because your life may depend on it. Yet the quality of health care varies greatly in this country. Some physicians, some hospitals,
s some health-care plans do a better job of helping people stay healthy or get better if they become ill. At one time, patients simply put their faith in physicians and assumed that they knew best and would make the correct medical decisions. Today health care has become far more complex and impersonal. Increasingly, doctors as well as consumer advocates insist that patients need to take responsibility for their own care. Rather than assuming that health-care providers will do whatever is necessary and appropriate, you must take the initiative to ensure that you get quality care.1

Quality begins with you. (See Self-Survey.) By learning how to maintain your health, evaluate medical information, and spot early signs of a problem, you’re more likely to get the best possible care—and to keep down your medical bills. Self-care means head-to-toe maintenance, including good oral care, appropriate screening tests, knowing your medical rights, and understanding the health-care system.

Chances are that you’ve tried—or will try—alternative therapies. Many use a “whole-person” approach that addresses all the dimensions of health. You need to be just as savvy a consumer when considering a complementary or alternative treatment as you would with a more mainstream one. You also need to continue your best healthy practices throughout your life so you can function at your best for as long as possible. But your future begins with the healthy choices you make today and every day.

Personalizing Your Health Care

Thanks to advances in genomics (the study of the entire set of human genes), physicians are tailoring tests and treatments to individual patients. “Personalized” medicine can alert your doctor to potential threats that might be prevented, delayed, or detected at an earlier, more treatable stage and, if you do develop a disease, pinpoint the medications that will do the most good and cause the least harm.

But “personalizing” health care is also a personal responsibility. You can take charge of your own health by compiling a family health history and informing yourself about risks related to your gender, race, and ethnicity.

Your Family Health History

Someday a DNA scan from a single drop of blood may tell you the diseases you’re most likely to develop. A family history can do the same—now.

Mapping your family medical history can help identify health risks you may face in the future. One way of charting your health history is to draw a medical family “tree” that includes your parents and siblings (who share half your genes), as well as grandparents, uncles, aunts, and cousins. Depending on how much information you’re able to obtain for each relative, your medical family tree can include health issues each family member has faced, including illnesses with a hereditary component, such as high blood pressure, diabetes, some cancers, and certain psychiatric disorders. Although having a relative with a certain disease may increase your risk, your likelihood of ending up with the same condition also depends on your health habits, such as diet and exercise. Knowing now that you’re at risk can motivate you to change any unhealthy behaviors. Realizing that you have a relative with, say, colon cancer could mean that you should start screening tests ten years before others because you’re at risk of developing a tumor at an earlier age.

For guidance on creating a family history, check these websites: www.mayoclinic.com or www.ashg.org/genetics/ashg/educ/007.shtml.
Men and Women as Health-Care Consumers

The genders differ significantly in the way they use health-care services in the United States. Women see doctors more often than men, take more prescription drugs, are hospitalized more, and control the spending of three of every four health-care dollars. In a national telephone poll, 76 percent of American women—but only 60 percent of men—said they had had a health exam in the last 12 months.

Many experts believe that the need for birth control and reproductive health services gets women into the habit of making regular visits to health-care professionals, primarily gynecologists. There are no comparable specialists for men, who tend to visit urologists, specialists in male reproductive organs, only when they develop problems. Men also are conditioned to take a stoic, tough-it-out attitude to early symptoms of a disease.

Men feel they are not allowed to manifest illness unless it’s overt, says family practitioner Martin Miner, M.D., who has conducted research on men and health care. One reason men die earlier than women is because of the length of time they wait to go for treatment.

The genders also differ in the symptoms and syndromes they develop. For instance, men are more prone to back problems, muscle sprains and strains, allergies, insomnia, and digestive problems. Men develop heart disease about a decade earlier in life than women. More men develop ulcers and hernias; women are more likely to get gallbladder disease and irritable bowel syndrome. An estimated 3 to 6 percent of men suffer from migraines, compared with 15 to 17 percent of women. Yet women and men spend similar proportions of their lifetimes—about 81 percent—free of disability. For men, whose lifespans are shorter, this translates into an average of 58.8 years; for women, 63.9 years.

Self-Care

Most people do treat themselves. You probably prescribe aspirin for a headache, chicken soup or orange juice for a cold, or a weekend trip to unwind from stress. At the very least, you should know what your vital signs are and how they compare against normal readings (Figure 17.1).

Once a thermometer was the only self-testing equipment found in most American homes. Now hundreds of home tests are available to help consumers monitor everything from fertility to blood pressure to cholesterol levels (Table 17.1). More convenient and less expensive than a visit to a clinic or doctor’s office, the new tests are generally as accurate as those administered by a professional.

Self-care also can mean getting involved in the self-help movement, which has grown into a major national trend. An estimated 20 million
people participate in self-help support groups. Millions of others join virtual support communities online.

**Oral Health**

Oral health involves more than healthy teeth—it refers to the entire mouth, including all the structures that allow us to talk, bite, chew, taste, swallow, smile, scream, or scowl. Oral health is a critical part of overall health. Research has revealed links between chronic oral infection and heart and lung diseases, stroke, low birthweight, premature births, and diabetes.

Poor oral health can lead to a variety of health problems. People with gum disease are at higher risk for developing heart disease, stroke, uncontrolled diabetes, preterm births, and respiratory disease. One recent study found an increased risk of pancreatic cancer in individuals who had experienced tooth loss.

Thanks to fluoridated water and toothpaste and improved dental care, Americans’ oral health is better than in the past. However, without good self-care, you probably will lose some teeth to decay and gum disease. The best way to prevent such problems is through proper and regular brushing and flossing.

**Gum**, or periodontal, **disease** is an inflammation that attacks the gum and bone that hold your teeth in place. The culprit is **plaque**, the sticky film of bacteria that forms on teeth. More than 300 species of bacteria live under the gum line, and about half a dozen have been linked to serious gum problems. The early stage of gum disease is called **gingivitis**. If untreated, it develops into a more serious form known as **periodontitis**, in which plaque moves down the tooth to the roots, which then become infected. In advanced periodontitis, the infection destroys the bone and fibers that hold teeth in place.

Symptoms of gum disease include bleeding during brushing or flossing, redness and puffiness of gums, tenderness or pain, persistent bad breath or a bad taste in the mouth, receding gums, shifted or loosened teeth, and changes in the way your teeth fit together when you bite. New treatments, which offer an alternative to traditional gum surgery, include a single antibiotic injection or the implant of a small

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**Table 17.1 Home Health Tests: A Consumer's Guide**

<table>
<thead>
<tr>
<th>Type of Test</th>
<th>What It Does</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pregnancy</td>
<td>Determines if a woman is pregnant by detecting the presence of human chorionic gonadotropin in urine. Considered 99 percent accurate.</td>
</tr>
<tr>
<td>Fertility</td>
<td>Measures levels of luteinizing hormone (LH), which rise 24 to 36 hours before a woman conceives. Can help women increase their odds of conceiving.</td>
</tr>
<tr>
<td>Blood pressure</td>
<td>Measures blood pressure by means of an automatically inflating armband or a cuff for the finger or wrist; helps people taking hypertension medication or suffering from high blood pressure to monitor their condition.</td>
</tr>
<tr>
<td>Cholesterol</td>
<td>Checks cholesterol in blood from a finger prick; good for anyone concerned about cholesterol.</td>
</tr>
<tr>
<td>Colon cancer</td>
<td>Screening test to detect hidden blood in stool; recommended for anyone over 40 or concerned about colorectal disease.</td>
</tr>
<tr>
<td>Urinary tract infection</td>
<td>Diagnoses infection by screening for certain white blood cells in urine; advised for women who get frequent UTIs and whose doctors will prescribe antibiotics without a visit.</td>
</tr>
<tr>
<td>HIV infection</td>
<td>Detects antibodies to HIV in a blood sample sent anonymously to a lab. Controversial because no face-to-face counseling is available for those who test positive.</td>
</tr>
</tbody>
</table>

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**Figure 17.1 Take Your Own Vital Signs**

![Vital Signs Chart]

- **Vital Sign** | **Normal Values** |
  - Temperature | 98.9°F in the morning or 99.9°F later in the day is upper limit of the normal oral temperature for people 40 years old or younger. |
  - Blood pressure | Below 120 (systolic) and below 80 (diastolic). You can measure your own blood pressure if you want to invest in blood pressure equipment. Check your local drugstore to purchase a blood pressure cuff or digital blood pressure monitor. |
  - Pulse | 72 beats per minute. Take your pulse rate at your wrist or at the carotid artery in your neck. |
  - Respiration rate | 15–20 breaths per minute. |
Your Strategies for Prevention

How to Take Care of Your Mouth

• Brush your teeth every morning and every night. Oral bacteria reach their highest count during sleep because fluids in the mouth accumulate. Nighttime cleaning reduces the bacterial population; morning cleaning lets you reduce the buildup.

• Use a toothpaste that has the American Dental Association (ADA) seal of acceptance and a toothbrush with soft, rounded bristles. Replace your toothbrush every three months.

• Hold the brush at a 45-degree angle from your gums. Pay particular attention to the space between your teeth and gums, especially on the inside, toward your tongue. Brush for two to five minutes. Don’t brush too vigorously. If you scrub as hard as you can, you may damage your teeth and gums. Abrasion—a problem for more than half of American adults—eroses tooth surfaces, weakens teeth, and increases sensitivity to hot and cold foods. There is some evidence that powered toothbrushes are better at removing plaque and reducing the risk of gum disease than are ordinary manual toothbrushes.

• Because brushing can’t reach plaque and food trapped between teeth, daily flossing is essential. Using waxed or unwaxed floss, start behind the upper and lower molars at one side of your mouth and work toward the other side.

• See your dentist twice a year for routine cleaning and examination. Your dentist should take a complete medical history from you and update it every six months, examine your mouth for signs of cancer, and thoroughly outline all treatment options.

• Make sure that everyone who works on the inside of your mouth wears a mask and rubber gloves to reduce the risk of disease transmission (that is, bacterial and viral infections, such as hepatitis, herpes, and HIV).

antibiotic chip in the periodontal pockets to promote healing.

Taking care of your mouth isn’t important only for dental health: It may affect how long you live. Gingivitis and periodontitis trigger an inflammatory response that causes the arteries to swell, which leads to a constriction of blood flow that can increase the incidence of cardiovascular disease. Periodontal disease also leads to a higher white blood cell count, an indicator that the immune system is under increased stress. The good news: You can prevent these problems by flossing daily and brushing your teeth and your tongue (to get rid of bacteria that can cause gum disease and bad breath).

The Doctor-Patient Partnership

Once the family doctor was indeed part of the family. The family doctor brought babies into the world, shepherded them through childhood, comforted and counseled them, stood by their bedside in their darkest hours. Patients entrusted the doctor with their cares, their
confidences, their very lives. Dramatic breakthroughs in diagnosing and treating illness shifted the focus in medicine from the family physician to the specialist, from basic caring to high-tech medical care. Patients today are more likely to be cured of a vast array of illnesses than were patients a century ago. However, they often complain of insensitive, uncaring physicians who focus on their diseases rather than on them as individuals.

As more physicians have joined managed-care organizations (discussed later in this chapter), which emphasize efficiency, they sometimes feel pressure to see more patients a day, to spend less time with each, and to discourage expensive tests and treatments.

Because physicians have less time and less autonomy, patients today must do more. Your first step should be learning more about your body: any medical conditions or problems you develop, and your options for treatment. You can find a great deal of information via computer online services, patient advocacy and support organizations, and libraries.

This information can help you know what questions to ask and how to evaluate what your doctor says. But you have to be willing to speak up. Busy doctors give patients less than a minute on average during a routine visit to say what’s bothering them before they interrupt. This doesn’t mean your doctor isn’t interested, but it does mean that you have to develop good communication skills so you can tell physicians what they need to know to help you.

Choosing a Primary Care Physician

Why does a healthy young adult need a doctor? To stay healthy as long as possible. At some point in early adulthood, you should establish a relationship with a physician who will do basic screening tests (Table 17.2), record your family history, and help you prevent problems down the road. The primary care physicians who are playing increasingly important roles in American health care include family practitioners, general internists, and pediatricians.

Obstetrician-gynecologists serve as the primary providers of health care for more than half of all women. If you’re a woman and your gynecologist is the only physician you see, make sure that he or she performs other tests—such as measuring your blood pressure—in addition to a pelvic and breast exam. If you develop other symptoms or health concerns, ask for an appropriate referral.

At college health centers, clinics, and some health-care organizations, consumers may be assigned to a primary physician or restricted to certain doctors. Even if your choices are limited, don’t suspend your critical judgment. If your assigned physician does not listen to your concerns or is not providing adequate care, you can—and should—request another physician. Your rapport with your primary physician and the feelings of mutual trust and respect that develop between you can have as much of an impact on your well-being as your doctor’s technical expertise.

One key to making the health-care system work for you lies in choosing a good physician. After seeing your primary care physician, ask yourself the following questions to evaluate the quality of care you are getting:

- Did your physician take a comprehensive history? Was the physical examination thorough?
- Did your physician explain what he or she was doing during the exam?
- Did he or she spend enough time with you?
- Did you feel free to ask questions? Did your physician give you straight answers? Did he or she reassure you when you were worried?
- Does your physician seem willing to admit that he or she doesn’t know the answers to some questions?
- Does your physician hesitate to refer you to a specialist even when you have a complex problem that warrants such care?

Look back at your answers. If they make you feel uneasy, have a talk with your physician. Or find a physician or a health plan that provides better service.
Here are some guidelines for talking with your doctor:

- **Prepare in advance.** Write down your questions, organize them in a logical fashion, and select the top ten queries you want answered. Make a copy of all your questions to review and leave with your doctor.
- **Ask about a “question hour.”** Many health-care practitioners set aside a specific time of day for patients with call-in questions. Find out if your college health center offers this service. Does a nurse field all calls? Can you get specific advice?
- **Go online.** Many doctors’ offices answer queries by e-mail. Ask your doctor if you can e-mail follow-up questions or progress reports on how you’re feeling.
- **Interrupt the interrupter.** If you’re having difficulty explaining what’s wrong, say so. If your doctor tries to put words in your mouth, say, “Please just listen so I can tell you the whole story without getting sidetracked.”

### Your Medical Exam

Although analysts have not found evidence that an annual screening physical is warranted for healthy adults, primary care physicians feel differently. In a recent survey about two-thirds agreed that an annual physical examination is necessary. The benefits, as doctors see them, include time to counsel patients about preventive health services, detection of underlying illnesses before symptoms develop, and improved patient-physician relationships.

Your physician will want a past **medical history**, including major illnesses, surgery, and treatments. Report any allergies you have, particularly to drugs, and the medications you take, including aspirin, antacids, sleeping pills, oral contraceptives, and recreational drugs, even if illegal. Your physician may also want to know about topics you consider private, such as sexually transmitted infections. Remember that he or she needs all this information to provide you with comprehensive treatment. Note, too, that a physician must report certain information—for example, certain sexually transmitted diseases—to health authorities.

<table>
<thead>
<tr>
<th>Table 17.2 Screening Tests and Recommendations</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Anemia</strong></td>
</tr>
<tr>
<td>Beginning in adolescence, all nonpregnant women should be screened every five to ten years until menopause.</td>
</tr>
<tr>
<td><strong>Clinical Breast Exam/Mammogram</strong></td>
</tr>
<tr>
<td>Women ages 20 to 39 should receive a clinical breast exam every three years. Women age 40 and older should receive an annual clinical breast exam and a mammogram.</td>
</tr>
<tr>
<td><strong>Cervical Cancer Screening (Pap Smear)</strong></td>
</tr>
<tr>
<td>Three years after first sexual intercourse or by age 21, whichever comes first, until age 30, women should receive an annual Pap smear. After age 30, the screening rate may decrease. See “Making Change Happen: Detecting Cancer” in Chapter 15, page 530.</td>
</tr>
<tr>
<td><strong>Cholesterol and Lipids</strong></td>
</tr>
<tr>
<td>Adults over age 20 should have a lipoprotein panel test every five years.</td>
</tr>
<tr>
<td><strong>Colorectal Cancer Screening</strong></td>
</tr>
<tr>
<td>Adults age 50 and older should receive an annual fecal occult blood test and colonoscopy every ten years.</td>
</tr>
<tr>
<td><strong>Type 2 Diabetes</strong></td>
</tr>
<tr>
<td>Beginning at age 45, adults should have a fasting blood glucose test every three years.</td>
</tr>
<tr>
<td><strong>Hypertension Screening</strong></td>
</tr>
<tr>
<td>Adults age 18 and older should have an annual blood pressure (BP) check. If the BP is less than 130/85, it should be checked every two years. If the blood pressure is between 130–139/85–89, it should be checked annually. After age 60, blood pressure should be checked annually.</td>
</tr>
<tr>
<td><strong>Osteoporosis</strong></td>
</tr>
<tr>
<td>Women age 65 and older should have a baseline bone mineral density test. To reduce the risk of fractures, women should increase dietary calcium and vitamin D2, perform weight-bearing exercise, stop smoking, and moderate alcohol intake.</td>
</tr>
<tr>
<td><strong>Prostate Cancer Screening</strong></td>
</tr>
<tr>
<td>Men age 50 and older should discuss potential benefits and known harms of screening with PSA and digital rectal exam.</td>
</tr>
<tr>
<td><strong>Skin Cancer Screening</strong></td>
</tr>
<tr>
<td>Adults should receive an annual skin exam.</td>
</tr>
<tr>
<td><strong>Visual Exam</strong></td>
</tr>
<tr>
<td>Adults ages 18 to 40 should have a complete visual examination every two to three years; ages 41 to 60, every two years; and age 61 and older, every year.</td>
</tr>
</tbody>
</table>

After the physician has asked you questions about your complaints, medical history, and lifestyle, he or she will probably perform the standard tests described below. During the examination, point out any pains, lumps, or skin growths you’ve noticed. If you feel pain when the physician palpates (feels) any part of your body, say so.

- **Head.** Using a flashlightlike instrument called an ophthalmoscope, the physician will look at the lens, retina, and blood vessels of your eyes. He or she also will examine your ears, mouth, tongue, teeth, and gums.
- **Neck.** Feeling around your neck, the physician will check for enlarged lymph glands (a sign of infection), for lumps in the thyroid gland, and for warning signs of stroke in the neck arteries.
- **Chest.** With a stethoscope, the physician will listen to the sounds made by your heart, to detect heart murmurs and irregular contractions, and by your lungs, to detect asthma or emphysema. By tapping on your chest and back with his or her fingers, the physician can tell the size and shape of your heart, which may reveal some forms of heart disease, and whether any fluid has collected in your lungs. The physician will also check for abnormal lumps in a woman’s breasts.
- **Abdomen.** Here the physician uses his or her fingers to probe for tender spots and malformations of the liver and other organs, which may reveal signs of alcoholism, hepatitis, or hernias.
- **Rectum and genitals.** With a gloved hand, the physician can feel in the rectum for growths and hemorrhoids. A rectal examination can also reveal enlargement of the male’s prostate gland. The physician will check male testicles and spermatic cords for abnormalities.
- **Pelvic examination.** During a pelvic examination, a woman lies on her back, with her heels in stirrups at the end of the examining table and her legs spread out to the sides. The physician inspects the labia, clitoris, and vaginal opening. Using two gloved, lubricated fingers, the physician will check for abnormalities in the vagina, uterus, fallopian tubes, and ovaries. Many physicians will also perform a rectal or rectovaginal (one finger in the rectum and one in the vagina) examination. A nurse or other health-care worker should be present throughout the exam.

The speculum is a medical instrument that spreads the walls of the vagina so that the inside can be seen. As discussed in Chapters 11 and 16, doctors are using HPV tests as well as the conventional Pap smear to screen for cervical cancer.
- **Extremities.** The physician may check your knees and other joints for reflexes, which can indicate nerve disorders, and look for tremors in outstretched hands or in the face. The color, elasticity, and wetness or dryness of your skin can alert him or her to nutritional problems, or can indicate diabetes or skin cancer. Hair and nails can give indications of internal health, such as blood disorders. Swelling of the ankles can be an indication of heart, kidney, or liver disease.
- **Pulse and blood pressure.** Your physician may check your pulse in various places, looking for signs of poor circulation. The rhythm and speed of the heart may also signal diseases of the heart or thyroid gland. High blood pressure can be an early warning sign of possible heart attack, stroke, or kidney damage.

## Medical Tests

Besides the diagnostic tests just listed, the physician may order some laboratory and other tests, including the following:

- **Chest X-ray.** A chest X-ray can reveal abnormalities of the heart and lungs; if you’re a smoker, the physician may insist on one.
- **Electrocardiogram.** The electrocardiogram, performed while you’re at rest, records the electrical activity of your heart. It can show irregularities in heart rhythm or muscle damage, as well as hardening of the arteries.
- **Urinalysis.** Your urine may be analyzed by a medical laboratory. If sugar (glucose) is found in your urine, your physician may order a separate blood test to check for diabetes. The presence of blood cells may indicate infection of the bladder or kidneys. Abnormal amounts of albumin (protein) in the urine may also suggest kidney disease.
- **Blood tests.** The physician or laboratory technician may draw blood to do a blood cell count. An excess of white blood cells may indicate an infection or, occasionally, leukemia. A deficiency of red blood cells may indicate anemia. Your blood also may be analyzed to measure the levels of its various components. High levels of glucose can indicate diabetes, and high levels of uric acid may mean gout or kidney stones. Your lipoprotein profile may indicate cardiac risk (see Chapter 15).
Preventing Medical Errors

More people die from medical errors than from motor vehicle accidents, breast cancer, or AIDS. Medical errors occur when a planned part of medical care doesn’t work properly or when the wrong plan was used in the first place. They can happen anywhere in the health-care system, from doctors’ offices to pharmacies to hospitals to patients’ homes. They may involve medications, diagnoses, tests, lab equipment, surgery, or infection. They are most likely to occur when doctors and patients have problems communicating.

Your best defense against medical errors is information. Your questions about your treatments can keep you safe and ensure you get quality health care. (See Health on a Budget.)

Your Medical Rights

As a consumer, you have basic rights that help ensure that you know about any potential dangers, receive competent diagnosis and treatment, and retain control and dignity in your interactions with health-care professionals. Many hospitals publish a patient’s bill of rights, including your rights to know whether a procedure is experimental; to refuse to undergo a specific treatment; to designate someone else to make decisions about your care if and when you cannot; and to leave the hospital, even against your physician’s advice.

You have the right to be treated with respect and dignity, including being called “Mr.” or “Ms.” or whatever you wish, rather than by your first name. Make clear your preferences. If you feel that health-care professionals are being condescending or inconsiderate, say so—in the same tone and manner that you would like others to use with you. If you’re hospitalized, find out if there’s a patient advocate or representative at your hospital. These individuals can help you communicate with physicians, make any special arrangements, and get answers to questions or complaints.

Your Right to Information

By law, a patient must give consent for hospitalization, surgery, and other major treatments. Informed consent is a right, not a privilege. Use this right to its fullest. Ask questions. Seek other opinions. Make sure that your expectations are realistic and that you understand the potential risks, as well as the possible benefits, of a prospective treatment.

Your Right to Privacy and Access to Medical Records

Your medical records are your property. You have the right to see them whenever you choose and to limit who else can see them. Federal standards protecting the privacy of patients’ medical information guarantee patients access to their medical records, give them more control over how personal health information is disclosed, and limit the ways that health plans, pharmacies, and hospitals can use personal medical information.

Health on a Budget

Getting Your Money’s Worth from a Medical Visit

The value of medical care depends not just on health care professionals, but on you:

- **If you receive a diagnosis**, make sure you understand what may be wrong with you, as well as which medications you are taking and why.
- **When your doctor writes you a prescription**, make sure you can read it and know why and how you are to take the medication.
- **Ask for information about your medicines** in terms you can understand, including explanations of possible interactions with other drugs or dietary supplements and potential side effects.
- **If you must undergo surgery** and you can choose a hospital, select one at which many patients have had the procedure or surgery you need.
- **Speak up if you have questions or concerns.** Ask a family member or friend to be your advocate and speak up for you if you can’t.
Key provisions include:

- **Access to medical records.** As a patient, you should be able to see and obtain copies of your medical records and request corrections if there are errors. Health-care providers must provide these within 30 days; they may charge for the cost of copying and mailing records.

- **Notice of privacy practices.** Your providers must inform you of how they use personal medical information. Doctors, nurses, and other providers may not disclose information for purposes not related to your health care.

- **Prohibition on marketing.** Pharmacies, health plans, and others must obtain specific authorization before disclosing patient information for marketing.

- **Confidentiality.** Patients can request that doctors take reasonable steps to ensure confidential communications, such as calling a cell phone rather than home or office.

### Elective Treatments

As medical technology has developed new options, millions of Americans are trying elective procedures and products that are not medically necessary but that promise to enhance health or appearance. Some are new alternatives for correcting common problems, such as poor vision, while others offer the promise of looking younger or more attractive. In some cases, the procedures are scams or hoaxes. (See Consumer Alert.)

### Vision Surgery

Millions of people in the United States have undergone laser surgery to correct their vision. In LASIK (laser-assisted in situ keratomileusis), the most common technique, a surgeon uses a razorlike instrument to lift a flap of the cornea—the clear stiff outer layer over the colored iris—and then reshapes the exposed area using a laser. The surgery alters the way the eye focuses light, correcting nearsightedness, farsightedness, and some astigmatism. Laser surgery cannot make an aging eye’s lens flexible again to improve close-up vision in middle-aged...

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In the hospital, you can discuss the patient’s rights and other individual concerns with a patient advocate.
adults. Numbing eye drops make the treatment painless, although burning and scratchiness are normal for a couple of hours afterward. An estimated 10 to 30 percent of patients require additional surgery, or “enhancements,” to sharpen their vision. Other complications include glare, sensitivity to bright lights, and poor night vision.

Prices have fallen, but ophthalmologists have warned consumers that some laser surgery centers have cut corners to cut prices, such as hiring inexperienced surgeons or using optometrists or technicians rather than MDs for pre- and postoperative checkups. A qualified eye surgeon should have a record of 100 or more LASIK procedures and at least 25 enhancements—but no more than 20 percent of his or her patients should require enhancements. Ideally, the surgeon should also be the one doing your pre- and postprocedure checks.

**When Is LASIK Not for You?** You are probably NOT a good candidate for refractive surgery if:

- **You are not a risk taker.** Certain complications are unavoidable in a percentage of patients, and there are no long-term data available for current procedures.
- **Cost is an issue.** Most medical insurance will not pay for refractive surgery. Although the cost is coming down, it is still significant.
- **You required a change in your contact lens or glasses prescription in the past year.** This is called refractive instability. Patients who are in their early 20s or younger, whose hormones are fluctuating due to disease such as diabetes, who are pregnant or breast-feeding, or who are taking medications that may cause fluctuations in vision are more likely to have refractive instability and should discuss the possible additional risks with their doctor.
- **You have a disease or are on medications that may affect wound healing.** Certain conditions, such as autoimmune diseases and diabetes, and some medications may prevent proper healing after a refractive procedure.
- **You actively participate in contact sports.** If you participate in boxing, wrestling, martial arts, or other activities in which blows to the face and eyes are a normal occurrence, LASIK is probably not right for you.

- **You are under 18.** Currently, no lasers are approved for LASIK on persons under the age of 18.
- **It will jeopardize your career.** Some jobs, including certain military assignments, prohibit refractive procedures.

### Cosmetic Surgery

Approximately 11 million cosmetic treatments are performed every year. About a quarter of those undergoing plastic surgery are between the ages of 18 and 29. The number of teenagers opting for cosmetic procedures—primarily liposuction, nose reshaping, and breast augmentation—is increasing. Nonsurgical cosmetic procedures such as injections of synthetic collagen and botulinum toxin (Botox®) also have become more popular. Health insurance rarely covers cosmetic procedures, which can run into the tens of thousands of dollars.

The most common cosmetic operation is liposuction, the removal of fatty tissue by means of a vacuum device. It can be performed on many areas of the body, from sagging jowls to midsection “love handles” or “muffin tops.” The doctor first flushes the target area with a solution of lidocaine (a local anesthetic with a numbing effect), saline, and epinephrine (a drug that reduces bleeding by constricting blood vessels). Inserting a hollow, wandlike cannula under the skin, the doctor breaks up fatty deposits and suction them, along with other body fluids, with a vacuum device.

Risks and complications include infection, numbness, bleeding, discoloration, lumpiness, and, if too much tissue is removed without proper cautions, potentially fatal complications.

The American Society of Plastic and Reconstructive Surgeons estimates the mortality rate is one in 5,000 liposuction patients. Several states are considering legislation to tighten restrictions on training and credentialing doctors who perform liposuction.

Breast augmentation is another cosmetic procedure. The Institute of Medicine, after reviewing all available evidence, has reported that there appears to be no link between breast implants and autoimmune disease, connective tissue disorders, or cancer. However, today’s surgeons use implants filled with a saltwater solution. Patients still face possible complications,
CONSUMER ALERT

Health Hoaxes

Every year millions of Americans go searching for medical miracles that never happen. In all, they spend more than $10 billion on medical quackery, unproven health products and services. Those who lose only money are the lucky ones. Many also waste precious time, during which their conditions worsen. Some suffer needless pain, along with crushed expectations.

Facts to Know

Promoters of fraudulent health products often use similar claims and practices to trick consumers into buying their products. Be suspicious when you see:

• Claims that a product is a “scientific breakthrough,” “miraculous cure,” “secret ingredient,” or “ancient remedy.”
• Claims that the product is an effective cure for a wide range of ailments. No product can cure multiple conditions or diseases.
• Claims that use impressive-sounding medical terms. They’re often covering up a lack of good science.
• Undocumented case histories of people who’ve had amazing results. It’s too easy to make them up. And even if true, they can’t be generalized to the entire population. Anecdotes are not a substitute for valid science.
• Claims that the product is available from only one source and payment is required in advance.
• Claims of a “money-back” guarantee.
• Websites that fail to list the company’s name, physical address, phone number, or other contact information.

Steps to Take

To keep from risking your life on false hope, follow these guidelines:

• Arm yourself with up-to-date information about your condition or disease from appropriate organizations, such as the American Cancer Society or the Arthritis Foundation, which keep track of unproven and ineffective methods of treatment.
• Ask for a written explanation of what a treatment does and why it works, evidence supporting all claims (not just testimonials), and published reports of the studies, including specifics on numbers treated, doses, and side effects. Be skeptical of self-styled “holistic practitioners,” treatments supported by crusading groups, and endorsements from self-proclaimed experts or authorities.
• Don’t part with your money quickly. Insurance companies won’t reimburse for unproven therapies.
• Don’t discontinue your current treatment without your physician’s approval. Many physicians encourage supportive therapies—such as relaxation exercises, meditation, or visualization—as a supplement to standard treatments.


Nontraditional Health Care

Complementary and alternative medicine (CAM) refers to various medical and health care systems, practices, and products that are not considered part of conventional medicine because there is not yet sufficient proof of their safety and effectiveness. CAM’s varied healing philosophies, approaches, and therapies include preventive techniques designed to delay or prevent serious health problems before they start and holistic methods that focus on the whole person and the physical, mental, emotional, and spiritual aspects of well-being. Some approaches are based on the same physiological principles as traditional Western methods; others, such as acupuncture, are based on different healing systems. The most commonly used are nonvitamin, nonmineral, natural products (such as fish oil, omega 3, and echinacea) and deep breathing exercises. (See Table 17.3.)

Most people who choose CAM want to improve their overall health and well-being or to relieve the symptoms associated with chronic or terminal illnesses or the side effects of conventional treatments for such diseases. Some are seeking a transformational experience that changes their worldview or want greater control over their health. The overwhelming majority of patients use CAM as a complement to rather than a substitute for conventional care.

The list of available CAM treatment changes constantly as treatments that are proven safe and effective become adopted into conventional health care and as new approaches to health care emerge. Informed consent remains an issue because there are no widespread standards for disclosing risks, discussing alternatives, and assessing potential benefits.

About 25 percent of the scientific reviews of various CAM approaches that have been done in recent years have found sufficient evidence to conclude that certain therapies are effective for certain conditions. For instance, acupuncture including rupture, scarring, infection, and leaking or hardening of their implants.
and, to a lesser extent, massage therapy are now included among the recommended therapies for treating back pain in guidelines released by the American College of Physicians and the American Pain Society.

**Who Uses CAM**

According to recent surveys, 38 percent of adults in the United States report use of CAM therapy in the previous 12 months. The most frequent reasons are back pain or other problems, head or chest colds, neck pain or problems, joint pain or stiffness, and anxiety or depression. Individuals with cancer, cardiovascular diseases, and lung disorders also are likely to try CAM. Not all CAM users have health problems. About one-fifth of adults with no health conditions and a quarter of those who had not visited a doctor in the past 12 months used CAM therapies. (See Health in Action.)

About one in nine children has used CAM, including natural products, chiropractic or osteopathic manipulation, deep breathing exercises, yoga, and homeopathic remedies. Youngsters whose parents use CAM are much more likely to receive CAM treatments than those whose parents do not. For both adults and children, individuals worried about costs were more likely to delay conventional care and try CAM.

The populations most likely to use CAM are:

- Women.
- Adults between ages 30 and 69.
- Cancer survivors.
- Adults with higher levels of education.
- Individuals who are physically active during their leisure time.
- People who have existing medical conditions or made frequent medical visits in the prior year.
- Residents of Western states.
- Former smokers.
- People with private health insurance (for those under age 65).

CAM is more widely used in many other countries. In Germany, for instance, 82 percent of patients use CAM treatments, with acupuncture, massage, and relaxation techniques the most widely used.

Some states have mandated health insurance coverage for CAM therapies, which also

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**Table 17.3 10 Most Common CAM Therapies among Adults**

<table>
<thead>
<tr>
<th>Therapy</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Natural Products</td>
<td>17.2%</td>
</tr>
<tr>
<td>Deep Breathing</td>
<td>13.2%</td>
</tr>
<tr>
<td>Meditation</td>
<td>9.4%</td>
</tr>
<tr>
<td>Massage</td>
<td>8.6%</td>
</tr>
<tr>
<td>Chiropractic &amp; Osteopathic</td>
<td>8.3%</td>
</tr>
<tr>
<td>Yoga</td>
<td>6.1%</td>
</tr>
<tr>
<td>Diet-Based Therapies</td>
<td>3.5%</td>
</tr>
<tr>
<td>Progressive Relaxation</td>
<td>2.9%</td>
</tr>
<tr>
<td>Guided Imagery</td>
<td>2.2%</td>
</tr>
<tr>
<td>Homeopathic Treatment</td>
<td>1.8%</td>
</tr>
</tbody>
</table>
Taking Charge of Your Health

Types of CAM

The National Center for Complementary and Alternative Medicine (NCCAM) has classified CAM therapies into five categories (Figure 17.2).

- **Alternative medical systems.**
- **Mind-body medicine.**
- **Biologically based therapies.**
- **Manipulative and body-based methods.**
- **Energy therapies.**

### Types of CAM

**Alternative Medical Systems**

Systems of theory and practice other than traditional Western medicine are included in this group. They include acupuncture, Eastern medicine, t’ai chi, external and internal qi, Ayurvedic medicine, naturopathy, and unconventional Western systems, such as homeopathy and orthomolecular medicine. (See “Health in the Headlines.”)

**Acupuncture** is an ancient Chinese form of medicine, based on the philosophy that a cycle of energy circulating through the body controls health. Pain and disease are the result of a disturbance in the energy flow, which can be corrected by inserting long, thin needles at specific points along longitudinal lines, or meridians, throughout the body. Each point controls a...
different corresponding part of the body. Once inserted, the needles are rotated gently back and forth or charged with a small electric current for a short time. Western scientists aren’t sure exactly how acupuncture works, but some believe that the needles alter the functioning of the nervous system.

Since the 1990s, studies have looked at acupuncture’s effect on specific health conditions and how it affects the brain and nervous system; the neurological properties of meridians and acupuncture points; and methods for improving the quality of acupuncture research.\(^5\)

High-quality, randomized, controlled trials have shown that various forms of acupuncture, including so-called sham acupuncture during which no needles actually penetrate the skin, are equally effective for low-back pain—and more beneficial than standard care. However, even sham acupuncture can produce adverse effects, including infection and trauma.\(^6\)

Recent studies have found that acupuncture:

- Helps alleviate nausea in cancer patients undergoing chemotherapy.
- Relieves pain and improves function for some people with osteoarthritis of the knee.
- Helps in treating chronic lower back pain.
- May or may not be of value for many other conditions, including irritable bowel syndrome and some neurologic disorders.\(^7\)

Considered alternative in this country, Ayurveda is a traditional form of medical treatment in India, where it has evolved over thousands of years. Its basic premise is that illness stems from incorrect mental attitudes, diet, and posture. Practitioners use a discipline of exercise, meditation, herbal medication, and proper nutrition to cope with such stress-induced conditions as hypertension, the desire to smoke, and obesity.

Homeopathy is based on three fundamental principles: like cures like; treatment must always be individualized; and less is more—the idea that increasing dilution (and lowering the dosage) can increase efficacy. By administering doses of animal, vegetable, or mineral substances to a large number of healthy people to see if they all develop the same symptoms, homeopaths determine which substances may be given, in small quantities, to alleviate the symptoms. Some of these substances are the same as those used in conventional medicine: nitroglycerin for certain heart conditions, for example, although the dose is minuscule.

Naturopathy emphasizes natural remedies, such as sun, water, heat, and air, as the best treatments for disease. Therapies might include dietary changes (such as more vegetables and no salt or stimulants), steam baths, and exercise. Some naturopathic physicians (who are not MDs) work closely with medical doctors in helping patients.

Mind-Body Medicine Mind-body medicine uses techniques designed to enhance the mind’s capacity to affect bodily function and symptoms. Some techniques that were considered alternative in the past have become mainstream (for example, patient support groups and cognitive-behavioral therapy). Other mind-body approaches are still considered CAM, including meditation, prayer (see Chapter 2), yoga, t’ai chi, visual imagery, mental healing, and therapies that use creative outlets such as art, music, or dance. About 30 percent of Americans report using relaxation techniques and imagery, biofeedback, and hypnosis; 50 percent use prayer.

Ayurveda A traditional Indian medical treatment involving meditation, exercise, herbal medications, and nutrition.

homeopathy A system of medical practice that treats a disease by administering dosages of substances that would in healthy persons produce symptoms similar to those of the disease.

naturopathy An alternative system of treatment of disease that emphasizes the use of natural remedies such as sun, water, heat, and air. Therapies may include dietary changes, steam baths, and exercise.
The physical and emotional risks of using mind-body interventions are minimal. Although we need much more research on how these approaches work and when to apply them most effectively, there is considerable evidence that mind-body interventions have positive effects on psychological functioning and quality of life and may be particularly helpful for patients coping with chronic illnesses.

Mind-body approaches definitely have won some acceptance in modern medical care. Techniques such as hypnosis have proved helpful in reducing discomfort and complications during and after various surgical procedures and in relieving hot flashes in breast cancer survivors. With biofeedback, people can learn to control usually involuntary functions, such as circulation to the hands and feet, tension in the jaws, and heartbeat rates. Biofeedback has been used to treat dozens of ailments, including asthma, epilepsy, pain, and Raynaud’s disease (a condition in which the fingers become painful and white when exposed to cold). Biofeedback has become accepted as a mainstream therapy, and many health insurers now cover biofeedback treatments.

Creative visualization (also discussed in Chapter 4) helps patients heal, including some diagnosed as terminally ill with cancer. Other patients use visualization to create a clear idea of what they want to achieve, whether the goal is weight loss or relaxation.

**Biologically Based Therapies** Biologically based CAM therapies use substances such as herbs, foods, and vitamins. They include herbal medicine (botanical medicine or phytotherapy), the use of individual herbs or combinations; special diet therapies, such as macrobiotics, Ornish, Atkins, and high fiber; orthomolecular medicine (use of nutritional and food supplements for preventive or therapeutic purposes); and use of other products (such as shark cartilage) and procedures applied in an unconventional manner.

In the last ten years, sales of herbal supplements have skyrocketed by 100 percent, but most people don’t consider evidence-based indications before trying them. According to recent research, two-thirds of people who use herbs do not do so in accordance with scientific guidelines. Although more than 1,500 different preparations are on the U.S. market, just a few single-herb preparations account for about half the sales in the United States: echinacea, garlic, ginkgo biloba, ginseng, kava, St. John’s wort, and valerian. Unlike medications, herbal products are exempt from the FDA’s regulatory scrutiny. The ingredients and the potency of active ingredients can vary from batch to batch.

Rigorous research studies are producing the first scientific evidence on the safety and efficacy of herbal supplements. Their benefits generally have proved modest (Table 17.4). Acai berry products, for example, have been widely marketed for weight-loss and anti-aging purposes, but there is no definitive scientific evidence to support the claims for this so-called superfood. The Federal Trade Commission has asked federal courts to temporarily suspend a series of fake news websites that have been marketing acai berry weight-loss products. People who are using or are considering using natural products, including acai, should discuss this decision with their health-care provider.

Most of the herbs tested have proved generally safe, although side effects such as headache and nausea can occur. However, some herbs can cause serious, even fatal dangers. Echinacea may cause liver damage if taken in combination with anabolic steroids. Several widely used herbs, including ginger, garlic, and ginkgo biloba, are dangerous if taken prior to surgery.

The FDA has prohibited the sale of dietary supplements containing ephedra, which was linked with dozens of deaths and more than 1,000 adverse reactions. It has issued warnings on other potentially dangerous herbs, including chaparral, comfrey, yohimbe, lobelia, german-der, willow bark, jin bu huan, and products containing magnolia or stephania.

**Manipulative and Body-Based Methods** CAM therapies based on manipulation and/or movement of the body are divided into three subcategories:

- **Chiropractic medicine.**
- **Massage therapy and body work** (including osteopathic manipulation, Swedish massage, Alexander technique, reflexology, Pilates, acupressure, and rolling).
• Unconventional physical therapies
  (including colonics, hydrotherapy, and light and color therapies).

Chiropractic is a treatment method based on the theory that many human diseases are caused by misalignment of the spine (subluxation). Chiropractors are licensed in all 50 states, but chiropractic is considered a mainstream therapy by some and a form of CAM by others. Significant research in the last ten years has demonstrated its efficacy for acute lower-back pain. NIH is funding research on other potential benefits, including headaches, asthma, middle ear inflammation, menstrual cramps, and arthritis.

Chiropractors, who emphasize wellness and healing without drugs or surgery, may use X-rays and magnetic resonance imaging (MRI) as well as orthopedic, neurological, and manual examinations in making diagnoses. However, chiropractic treatment consists solely of the manipulation of misaligned discs that may be putting pressure on nerve tissue and affecting other parts of the body. Many HMOs offer chiropractic services, which are the most widely used alternative treatment among managed care patients.

Energy Therapies Various approaches focus on energy fields believed to exist in and around the body. Some use external energy sources, such as electromagnetic fields. Magnets are marketed to relieve pain, but there is little scientific evidence of their efficacy. Others, such as therapeutic touch, use a therapist’s healing energy to repair imbalances in an individual’s biofield.

Table 17.4 Evidence-Based Evaluations of Herbal Supplements

<table>
<thead>
<tr>
<th>Herb</th>
<th>Evidence</th>
</tr>
</thead>
<tbody>
<tr>
<td>Saw palmetto</td>
<td>Reduces an enlarged prostate, but the effect is small compared with prescription medication</td>
</tr>
<tr>
<td>Ginseng</td>
<td>Improves energy of cancer patients</td>
</tr>
<tr>
<td>Echinacea and vitamin C</td>
<td>Mixed results warding off colds</td>
</tr>
<tr>
<td>Kava</td>
<td>May reduce anxiety, but can cause liver damage</td>
</tr>
<tr>
<td>Ginkgo biloba</td>
<td>No improvement in memory or thinking in the healthy elderly, but a small benefit for patients with dementia</td>
</tr>
<tr>
<td>Garlic</td>
<td>Not effective in lowering cholesterol</td>
</tr>
<tr>
<td>Black cohosh</td>
<td>No more effective than placebo for hot flashes; long-term effects unknown</td>
</tr>
</tbody>
</table>

The Health-Care System

As a college student, you can turn to the student health service if you get sick. There, a nurse, nurse practitioner, physician’s assistant, or medical doctor may evaluate your symptoms and provide basic care. However, you may rely on a primary care physician in your hometown to perform regular checkups or manage a chronic condition like asthma. If you’re injured in an accident, you probably will be treated at the nearest emergency room. If you become seriously ill and

herbal medicine A method of treating disease, primarily through manipulating the bones and joints to restore normal nerve function.

© Brand X Pictures/Jupiterimages
require highly specialized care, you may have to go to a university-affiliated medical center to receive state-of-the-art treatment.

Students can often continue their health-care coverage under their parents’ policy until the age of 26. However, if a parent belongs to an HMO with a local network of providers, the student may not be covered for anything outside the plan's service area except emergency care. A more open plan, like a preferred provider organization, may allow students to see doctors near school, but the costs may be high.

Most colleges offer some type of health insurance plan, with the student health center acting as the primary care provider. Many schools require enrollment if the student is not covered under any other plan. Check the plan carefully. Physicals, gynecological visits, and other preventive care may not be covered. College plans also may not cover preexisting conditions, such as asthma.

**Health-Care Practitioners**

Fewer than 10 percent of health-care practitioners are physicians; other types of health professionals are assuming more important roles in delivering primary, or basic, health services. As a consumer, you should be aware of the range and special skills of the most common types of health-care providers.

**Physicians** A medical doctor (M.D.) trained in American medical schools usually takes at least three years of premedical college courses (with an emphasis on biology, chemistry, and physics) and then completes four (but sometimes three or five) years of medical school. The first two years of medical school are devoted to the study of human anatomy, embryology, pharmacology, and similar basic subjects. During the last two years, students work directly with physicians in hospitals. Medical students who pass a series of national board examinations then enter a one-year internship in a hospital, followed by another two to five years of residency (depending on their specialty), which leads to certification in a particular field, or specialty.

About 500,000 of the nation’s 700,000 physicians are specialists or subspecialists, who focus on a specific part of the body, organ system, type of disease, or type of treatment. Traditionally, they have had greater status and earned much larger incomes than primary care physicians—family practitioners, pediatricians, and internists—who provide preventive care, regular checkups, and routine treatments of uncomplicated medical conditions. However, changes in health policy (such as increases in Medicare payments to primary care physicians) and in the delivery of services have given a more prominent role to primary care physicians. They now often function as “gatekeepers” who decide whether a patient needs to see a medical specialist.

**Nurses** A registered nurse (RN) graduates from a school of nursing approved by a state board and passes a state board examination. RNs may have a bachelor’s or an associate degree and may specialize in certain areas, such as intensive care or nurse-midwifery. Nurse practitioners, RNs with advanced training and experience, may run community clinics or provide screening and preventive care at group medical practices. Some have independent practices.

Licensed practical nurses (LPNs), also called licensed vocational nurses, are licensed by the state. After graduating from state-approved schools of practical nursing, they must take a board exam. They work under the supervision of RNs or physicians. Certified nursing
assistants (CNAs), nursing aides, and orderlies assist registered and practical nurses in providing services directly related to the comfort and well-being of hospitalized patients.

**Specialized and Allied-Health Practitioners** More than 60 types of health practitioners work with physicians and nurses in providing medical services. Some, such as occupational therapists, have at least a bachelor’s degree. Allied-health professionals may specialize in a variety of fields. Clinical psychologists have graduate degrees and provide a wide range of mental health services but don’t prescribe medications—as do psychiatrists. Optometrists, trained in special schools of optometry, diagnose visual abnormalities and prescribe lenses or visual aids; however, they don’t prescribe drugs, diagnose or treat eye diseases, or perform surgery—functions performed by ophthalmologists. Podiatrists are specially trained, licensed health-care professionals who specialize in problems of the feet.

**Dentists** Most dental students earn a bachelor’s degree and then complete two more years of training in the basic sciences and two years of clinical work before graduating with a degree of D.D.S. or D.M.D. (Doctor of Dental Surgery or Doctor of Medical Dentistry). To qualify for a license, graduates must pass both a written and a clinical examination. Dentists may work in general practice or choose a specialty, such as orthodontics (straightening teeth).

**Chiropractors** Chiropractors hold the degree of Doctor of Chiropractic (D.C.), which signifies that they have had two years of college-level training, plus four years in a health-care school specializing in chiropractic, described earlier in this chapter.

**Health-Care Facilities**

As a prospective patient, you can choose from various options: a physician’s office, a clinic, an emergency room, or a hospital. Most **primary care**—also referred to as ambulatory or outpatient care—is provided by a physician in an office, emergency room, or clinic. **Secondary care** usually is provided by specialists or subspecialists in either an outpatient or inpatient (hospital) setting. **Tertiary care,** available at university-affiliated hospitals and regional referral centers, includes special procedures such as kidney dialysis, open-heart surgery, and organ transplants.

**College Health Centers** The American College Health Association estimates that 1,500 institutions of higher learning provide direct health services. Student health centers, initially developed by departments of physical education and hygiene, range in size from small dispensaries staffed by nurses to large-scale, multispecialty clinics that provide both inpatient and outpatient care and are fully accredited by the Joint Commission on Accreditation of Healthcare Organizations. Some serve only students; others provide services for faculty, staff, and family members.

On some campuses, health educators work with the student health centers to provide counseling on such topics as nutrition; tobacco, drug, and alcohol abuse; exercise and fitness; sexuality; and contraception. Some college health centers provide psychological counseling, as well as dental, pharmacy, and optometric services. Some campuses also provide sports-medicine services for student athletes. Services are paid for by various combinations of prepaid health fees, general university funds, fee-for-service charges, and health-insurance reimbursements.

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**Primary care** Ambulatory or outpatient care provided by a physician in an office, emergency room, or clinic.
Outpatient Treatment Centers Increasingly, procedures that once required hospitalization, such as simple surgery, are being performed at outpatient centers, which may be freestanding or affiliated with a medical center. Patients have any necessary tests performed beforehand, undergo surgery or receive treatment, and return home after a few hours to recuperate. Outpatient centers can handle many common surgical procedures, including cataract removal, tonsillectomy, breast biopsy, dilation and curetage (D and C), vasectomy, and face-lifts.

Without the high overhead costs of a hospital, outpatient surgery costs run only about 30 to 50 percent of standard hospital fees. Today, 70 percent of hospitals do outpatient, or “in-and-out,” surgery. To cut health-care costs, insurance companies are encouraging, or in some cases requiring, their policyholders to choose outpatient surgery. However, operations requiring prolonged general anesthesia or extensive postoperative care still must be performed on an inpatient basis.

Freestanding emergency or urgent-care centers (those not part of a hospital) claim that they deliver high-quality medical treatment with maximum convenience in minimal time. Rather than going to crowded hospital emergency rooms when they slice a finger in the kitchen, patients can go to a freestanding emergency center and receive prompt attention.

Hospitals and Medical Centers Different types of hospitals offer different types of care. The most common type of hospital is the private, or community, hospital, which may be run on a profit or a nonprofit basis, generally contains 50 to 400 beds, and provides more personalized care than public hospitals do. The quality of care individual patients receive depends mostly on the physicians themselves. Public hospitals include city, county, public health service, military, and Veterans Administration hospitals. The quality of patient care depends on the overall quality of the institution.

Of the more than 6,500 hospitals nationwide, about 300 are major academic medical centers or teaching hospitals. Affiliated with medical schools, they generally provide the most up-to-date and experienced care, because staff physicians must stay current in order to teach their students. These centers, with the best equipment, researchers, and resources, offer high-technology care—at a price. The cost of treatment at all teaching hospitals averages approximately 20 percent higher than at nonteaching hospitals. At major teaching hospitals with large graduate training programs for physicians and other health providers, the costs are as much as 45 percent higher than those at nonteaching hospitals.

The Joint Commission on the Accreditation of Healthcare Organizations (JCAH) reviews all hospitals every three years. Eighty percent of hospitals qualify for JCAH accreditation. If you have to enter a hospital and your health insurance or plan allows a choice, try to find out as much as you can about the alternatives available to you:

- Talk to your physician about a hospital and why he or she recommends it.
- As a cost-cutting strategy, many hospitals have cut back on the use of registered nurses. Check with the local nursing association about the ratio of patients to nurses, and the ratio of RNs to LPNs.
- Find out room rates and charges for ancillary services, including tests, lab work, X-rays, and medications. Check with your health plan to see whether you need preapproval for any of these costs and ask what you will be expected to pay.
- Ask how many times in the past the hospital has performed the procedure recommended for you, and what the success and complication rates have been. Ask about the hospital’s nosocomial (hospital-caused) infection rate and accident rate. You also have the right to information on the number and types of malpractice claims filed against a hospital.
- If possible, go on a tour of the hospital. Does the setting seem comfortable? Is the staff courteous? Does the hospital seem clean and efficiently run?

Emergency Services Hospital emergency rooms should be used only in a true emergency. Most are overwhelmed, understaffed, and underfinanced—particularly in big cities. Patients usually see a different physician each time; he or she deals with the main complaints but doesn’t have time for a full examination. Extensive tests and procedures are difficult to arrange in an
emergency room, and patients who don’t have truly urgent problems may have to wait for a long time. Emergency-room fees are higher than those for standard office visits and are not always covered by medical insurance.

**Inpatient Care** Inpatient hospital care remains the most expensive form of health care. Health-insurance companies and health-care plans (described on pages 586–587) often demand a second opinion or make their own evaluation before approving coverage of an elective, or nonemergency, hospital admission. As another means of controlling costs, health insurers (including Medicare) may limit hospital stays or pay for hospital care on the basis of diagnostic-related groups, or DRGs. Under this system, hospitals are paid according to a patient’s diagnosis—for example, a set number of dollars for every appendectomy. If the hospital can treat and discharge patients more quickly than the national average for that DRG, it makes money. On the other hand, if a patient develops unexpected complications or is slow to recover, the hospital loses money.

Because hospital stays are shorter than in the past, patients often leave “quicker and sicker”—after a shorter stay and not as far along in their recovery. Nevertheless, the benefits of shorter hospital stays, including reduced risk of infection and more rapid resumption of normal life activities, may outweigh the slightly increased risks associated with early discharge.

**Home Health Care** With hospitals discharging patients sooner, home health care—the provision of equipment and services to patients in the home to restore or maintain comfort, function, and health—has become a major industry. Advances in technology have made it possible for treatments once administered only in hospitals—such as kidney dialysis, chemotherapy, and traction—to be performed at home at 10 to 40 percent of the cost. The physician’s house call, once considered an anachronism, has also come back in fashion. According to various surveys, the majority of primary care physicians will see patients in their homes.

Hospital discharge planners usually arrange home health care for patients who’ve been hospitalized. Families can also contact health aides, nurses, and other needed professionals on their own. According to the Health Insurance Association of America, most private insurance policies offer some coverage for these home health-care costs.

**Health-Care Financing**

Health-care spending in the United States has soared to $2.2 trillion—$7,421 per man, woman, and child. Although the rate of growth in health-care spending has been declining in the last few years, it still remains higher than overall inflation.

Your health plan affects many things, including:

- **Who** will care for you (doctors and other health-care providers), and how much choice you will have.
- **What** kind of care you will receive (for example, which preventive services are covered).
- **Where** you will receive your care (which hospitals, for example).
- **When** you will receive your care (will you receive it when you need it).
- **How** you will be cared for (the quality of care you receive).
- **How much** you will pay.
Managed Care  Managed care has become the predominant form of health care in the United States. Managed-care organizations, which take various forms, deliver care through a network of physicians, hospitals, and other health-care professionals who agree to provide their services at fixed or discounted rates. Nine in ten physicians in the United States have contracted with managed-care companies.

Consumers in a managed-care group must follow certain procedures in advance of seeking care (for example, getting prior approval for a test or treatment) and must abide by a limit on reimbursement for certain services. Some procedures may be deemed unnecessary and not be covered at all. Patients who choose to see a physician who is not a participating member of the medical-insurance coverage group may have to pay the entire fee themselves.

Managed-care plans have been criticized for pressuring providers to “undertreat” patients—for example, sending them home from the hospital too soon or denying them costly tests or treatments. Members have complained of long waits, the need to switch primary physicians if their doctor leaves the plan, difficulty getting approval for needed services, and a sense that providers pay more attention to the bottom line than to the health needs of their patients.

As dissatisfaction with managed care has grown, consumers have demanded more choice of physicians, direct access to specialists, and the ability to go “out of network.” In response to patients’ complaints, many states have approved “patient protection acts” or “comprehensive consumer bills of rights.”

According to the National Committee for Quality Assurance, managed-care plans have shown improvement in the delivery of care, but healthcare costs continue to rise. As a result, employers are cutting back coverage and asking employees to shoulder more of the burden of their health care in the belief that consumers will seek more efficient care when they are required to pay more out of pocket.

Preferred Provider Organizations  In a preferred provider organization (PPO), a third party—a union, an insurance company, or a self-insured business—contracts with a group of physicians and hospitals to treat members at a discount. PPO members may choose any physician within the network, and usually pay a 10 percent copayment for care within the system and a higher percentage (20 to 30 percent) for care elsewhere. PPOs generally require prior approval for expensive tests or major procedures.

A point-of-service (POS) plan is a PPO that permits patients to use physicians outside the network. Consumers pay the difference between the preferred provider’s discounted fee and the outside physician’s fee. A gatekeeper plan requires members to choose a primary physician, as in an HMO, who must approve all referrals to specialists.

When deciding on an HMO or PPO, use these questions as a guide:

- How many doctors can I choose from?
- Is the network made up of private or group practice physicians?
- Which doctors are accepting new patients?
- Can I change my primary care physician?
- What is the procedure for referrals to specialists?
- How easy is it to get an appointment?
- How far in advance must routine visits be scheduled?

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**managed care**  Health-care services and reimbursement predetermined by third-party insurers.

**health maintenance organization (HMO)**  An organization that provides health services on a fixed-contract basis.

**preferred provider organization (PPO)**  A group of physicians contracted to provide health care to members at a discounted price.
• What arrangements are there for handling emergency care?
• What health-care services are offered?
• Are there limits on medical tests, surgery, or other services?
• What if I want or need a special service that is not covered?
• Which hospitals are used?
• What happens if I’m out of town and need medical attention?
• What is the yearly total for monthly premiums?
• Are there any copayments? For which services and how much?

**Medicare/Medicaid** The government, through programs like Medicare and Medicaid, funds 45 percent of total U.S. health spending. Under Medicare, the federal government pays 80 percent of most medical bills, after a deductible fee, for people over age 65. Medicare also offers options for coverage of prescription medications.

Medicaid, a federal and state insurance plan that protects people with very low or no incomes, is the chief source of coverage for the unemployed. However, many unemployed Americans don’t qualify because their family incomes are above the poverty line. Publicly insured patients are more likely than those with private insurance to receive inadequate care and to experience adverse health outcomes.

**Health-Care Reform** On March 23, 2010, President Obama signed into law comprehensive health reform legislation, the Patient Protection and Affordable Care Act, which will eventually provide insurance coverage for 32 million uninsured Americans. In the long term, the legislation will require most Americans to obtain health insurance, offer federal subsidies to lower premiums, and significantly expand eligibility for Medicaid. Because of these changes, 94 percent of legal residents not covered by Medicare will have health insurance, up from 83 percent in 2010.

If you are under 26, the law mandates that you can be covered by your parents’ health policy. Some plans already extend coverage to adult dependents as long as they are full-time students. If you buy coverage on your own, you will pay less than those who are older.

Other changes include significant new restrictions on the insurance industry, new protections for consumers who already have health insurance, lower prices for certain medications, and coverage for people who have lost health insurance and can’t qualify for an individual policy. Insurance companies no longer can rescind a policy once someone gets sick, nor can they impose lifetime limits on coverage. Although no one yet knows the full impact the controversial legislation will have on the costs of health care, the Congressional Budget Office has said that by 2016 the new law will result in little, if any, increase in premiums for people with employer-sponsored plans.
Safeguarding Your Health

You can do more to safeguard and enhance your well-being than any health-care provider. Here are some recommendations to keep in mind. Check the ones you have used or plan to use in the future; then survey your health-care savvy in Your Personal Wellness Guide.

___ Trusting your instincts. You know your body better than anyone else. If something is bothering you, it deserves medical attention. Don’t let your health-care provider—or your health plan administrator—dismiss it without a thorough evaluation.

___ Doing your homework. Go to the library or online and find authoritative articles that describe what you’re experiencing. The more you know about possible causes of your symptoms, the more likely you are to be taken seriously.

___ Finding a good primary care physician who listens carefully and responds to your concerns. Look for a family doctor or general internist who takes a careful history, performs a thorough exam, and listens and responds to your concerns.

___ Seeing your doctor regularly. If you’re in your 20s or 30s, you may not need an annual exam, but it’s important to get checkups at least every two or three years so you and your doctor can get to know each other and develop a trusting, mutually respectful relationship.

___ Getting a second opinion. If you are uncertain of whether to undergo treatment or which therapy is best, see another physician and listen carefully for any doubts or hesitation about what you’re considering.

___ Seeking support. Patient support and advocacy groups can offer emotional support, information on many common problems, and referral to knowledgeable physicians.

___ If your doctor cannot or will not respond to your concerns, getting another one. Regardless of your health coverage, you have the right to replace a physician who is not meeting your health-care needs.

___ Speaking up. If you don’t understand, ask. If you feel that you’re not being taken seriously or being treated with respect, say so. Sometimes the only difference between being a patient or becoming a victim is making sure your needs and rights are not forgotten or overlooked.

___ Bringing your own advocate. If you become intimidated or anxious talking to physicians, ask a friend to accompany you, to ask questions on your behalf and to take notes.

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Are You a Savvy Health-Care Consumer?

1. You want a second opinion, but your doctor dismisses your request for other physicians’ names as unnecessary. What do you do?
   a. Assume that he or she is right and you would merely be wasting time.
   b. Suspect that your physician has something to hide and immediately switch doctors.
   c. Contact your health plan and request a second opinion.

2. As soon as you enter your doctor’s office, you get tongue-tied. When you try to find the words to describe what’s wrong, your physician keeps interrupting. When giving advice, your doctor uses such technical language that you can’t understand what it means. What do you do?
   a. Prepare better for your next appointment.
   b. Pretend that you understand what your doctor is talking about.
   c. Decide you’d be better off with someone who specializes in complementary/alternative therapies and seems less intimidating.

3. You feel like you’re running on empty, tired all the time, worn to the bone. A friend suggests some herbal supplements that promise to boost energy and restore vitality. What do you do?
   a. Immediately start taking them.
   b. Say that you think herbs are for cooking.
   c. Find out as much as you can about the herbal compounds and ask your doctor if they’re safe and effective.
4. Your hometown physician’s office won’t give you a copy of your medical records to take with you to college. What do you do?
   a. Hope you won’t need them and head off without your records.
   b. Threaten to sue.
   c. Politely ask the office administrator to tell you the particular law or statute that bars you from your records.

5. Your doctor has been treating you for an infection for three weeks, and you don’t seem to be getting any better. What do you do?
   a. Talk to your doctor, by phone or in person, and say, “This doesn’t seem to be working. Is there anything else we can try?”
   b. Stop taking the antibiotic.
   c. Try an herbal remedy that your roommate recommends.

6. Your doctor suggests a cutting-edge treatment for your condition, but your health plan or HMO refuses to pay for it. What do you do?
   a. Try to get a loan to cover the costs.
   b. Settle for whatever treatment options are covered.
   c. Challenge your health plan.

7. You call for an appointment with your doctor and are told nothing is available for four months. What do you do?
   a. Take whatever time you can get whenever you can get it.
   b. Explain your condition to the nurse or receptionist, detailing any symptoms and pain you’re experiencing.

8. Even though you’ve been doing sit-ups faithfully, your waist still looks flabby. When you see an ad for waist-whittling liposuction, what do you do?
   a. Call for an appointment.
   b. Talk to a health-care professional about a total fitness program that may help you lose excess pounds.
   c. Carefully research the risks and costs of the procedure.

9. You have a condition that you do not want anyone to know about, including your health insurer and any potential employer. What do you do?
   a. Use a false name.
   b. Give your physician a written request for confidentiality about this condition.
   c. Seek help outside the health-care system.

10. Your doctor suggests a biopsy of a funny-looking mole that’s sprouted on your nose. Rather than using a laboratory that specializes in skin analysis, your HMO requires that all samples be sent to a general lab, where results may not be as precise. What do you do?
    a. Ask your doctor to request that a specialty pathologist at the general lab perform the analysis.
    b. Hope that in your case, the general lab will do a good-enough job.
    c. Threaten to change HMOs.

**Answers**
1: c; 2: a; 3: c; 4: c; 5: a; 6: c; 7: b; 8: b and c; 9: b; 10: a
Making Change Happen

Health Assurance

You—your resources, your common sense, your choices, your feelings of self-efficacy and self-worth—determine how long and how well you live. Nothing and no one else has a greater impact on your health than you. Knowledge about health and health care is indeed power, but information alone isn’t enough. Action is the key. The habits you form now, the decisions you make while in college, will affect you for decades to come. “Health Assurance” in Labs for IPC can equip you with the basic skills and tools you need to ensure and assure yourself of a healthy future. Here’s a preview.

Get Real

In this stage you evaluate your sense of self-efficacy (discussed in Chapter 1) for your health by answering True or False to ten questions, including the following:

- I can avoid getting sick by taking care of myself. _____
- Most people do not realize how much circumstances contribute to their illnesses. _____
- The only way to protect my health is to do what my doctor tells me to do. _____

You also evaluate how well you are taking care of yourself by answering 16 questions, including the following:

- Have you had your blood glucose checked? (This is a test for prediabetes and diabetes.)
- Do you check your entire body for changes in moles and other early signs of skin cancer at least once a year?
- Do you wear a helmet when you ride a bicycle or motorcycle?

Based on your answers, you rate your conscientiousness in taking care of your health on a scale of 1 (whatever happens happens) to 10 (ever vigilant).

Get Ready

You get ready for the exercises in this lab by gathering information on your health and family history and scheduling medical appointments.

Get Going

You create your personal health record as both an electronic file and a hard-copy file that includes basic information such as:

- Dates and results of tests and screenings.
- Major illnesses and surgeries, with dates.
- A list of your medicines, dosages, and how long you’ve taken them.

You also assemble your family history, including all major illnesses and tendencies toward conditions such as allergies or migraines.

Every week you select a personally relevant topic, such as high blood pressure or diabetes, based on your personal or family medical history, and research it. You also prepare for your next doctor’s visit by following directions for what to ask; what to tell; what to do if you get a diagnosis; what to do if you need a lab test, an X-ray, or another kind of test; what to do if you receive a prescription for a new medicine; and how to follow up.

Lock It In

To maintain your health, you give yourself a checkup every week, recording any new health problems.

You also keep up with health news, particularly any conditions that affect you or your family.
Review Questions

1. Periodontal disease
   a. results from poor eating habits.
   b. can lead to cardiovascular problems.
   c. in its early stage can be prevented by brushing alone.
   d. is caused by a variety of bacteria and viruses.

2. During a medical exam, your doctor will
   a. check your cardiovascular system by listening to your heart and feeling your neck arteries.
   b. check your lungs by probing for tender spots and malformations.
   c. look into your eyes to see if you have vision problems that require glasses or contact lenses.
   d. evaluate your joints by tapping on the knees and elbows.

3. Informed consent means that
   a. the patient has informed the doctor of his or her symptoms and has consented to treatment.
   b. the physician has informed the patient about the treatment to be given and has consented to administer the treatment.
   c. the patient has informed the doctor of his or her symptoms, and the doctor has consented to administer treatment.
   d. the physician has informed the patient about the treatment to be given, and the patient has consented to the treatment.

4. Patients have all the following rights except the right
   a. to access their medical records.
   b. to medical care that meets accepted standards of quality.
   c. to donate a body part for compensation.
   d. to leave the hospital against their physician’s advice.

5. People use complementary and alternative therapies
   a. to spend less money on health care.
   b. to take an active role in their own treatment.
   c. to show their disdain for the medical establishment.
   d. to take more prescription drugs.

6. Which statement is false?
   a. Acupuncture has been shown to control nausea in patients after surgery.
   b. Chiropractic has been shown to relieve acute lower-back pain.
   c. People can learn to control involuntary functions through biofeedback.
   d. Naturopathy is based on the premise that like cures like.

7. Which of the following statements about the healthcare system is true?
   a. Primary care is usually provided by specialists in a hospital.
   b. Nurses can perform some surgical procedures once they are board certified.
   c. Most hospitals in the United States are teaching hospitals and affiliated with medical schools.
   d. The length of hospital stays may be determined by a patient’s diagnosis rather than the person’s pace of recovery.

8. Managed care features all of the following except
   a. health maintenance organizations.
   b. a fee-for-service system of insurance.
   c. preferred provider organizations.
   d. limitations on reimbursement for certain health services.

9. Personalizing health care—tailoring medical care to individual patients—may include all the following except
   a. DNA testing.
   b. mapping a family medical history.
   c. taking into account gender and ethnic background.
   d. taking into account economic status.

10. Which of the following is not a common form of CAM therapy?
    a. taking multivitamins
    b. meditation
    c. massage
    d. using guided imagery

*Answers to these questions can be found on page 672.*
Critical Thinking

1. Think about an experience you’ve had with a traditional medical practitioner. How did you feel during the physical examination? Did you trust the practitioner? Were you comfortable with the level of communication? Evaluate your experience and give your opinion of the value of the checkup.

2. Have you used any complementary or alternative approaches to health care? If so, were you satisfied with the results? How did your experience with the CAM therapist compare with your most recent experience with a traditional medical practitioner? Do you feel confident that you know the difference between alternative care and quackery?

3. Jocelyn has been experiencing a great deal of fatigue and frequent headaches for the past couple of months. She doesn’t have health insurance and doesn’t want to spend money on a doctor visit. So she did some research on the Internet about ways to relieve her symptoms and was considering taking a couple of herbal supplements that were touted as potential treatments. If she asked you for your advice, what would you tell her? Do you think that self-care is appropriate in this situation?

Media Menu

Visit www.cengagebrain.com to access course materials and companion resources for this text that will:

- Help you evaluate your knowledge of the material.
- Allow you to prepare for exams with interactive quizzing.
- Use the CengageNOW product to develop a Personalized Learning Plan targeting resources that address areas you should study.

- Coach you through identifying target goals for behavioral change and creating and monitoring your personal change plan throughout the semester using the Behavior Change Planner available in the CengageNOW resource.
Internet Connections

www.health.gov/nhic/
This excellent site, sponsored by the National Health Information Center (NHIC) of the U.S. Office of Disease Prevention and Health Promotion, is a health information referral service providing health professionals and consumers with a database of various health organizations. The site provides a searchable database, publications, and a list of toll-free numbers for health information.

http://nccam.nih.gov
This National Institutes of Health site features a variety of fact sheets on alternative therapies and dietary supplements, research, current news, and databases for the public as well as for practitioners.

www.medicinenet.com
This comprehensive site is written for the consumer by board-certified physicians and contains medical news, a directory of procedures, a medical dictionary, a pharmacy, and first aid information. You can use the information at MedicineNet.com to prepare for a doctor visit, learn about a diagnosis, or understand a prescribed treatment or procedure.

www.fda.gov
In addition to providing information on regulation and legislation relating to food and drugs, the FDA website offers information on strategies for evaluating health products and services.

www.odsw.od.nih.gov/Health_Information/Health_Information.aspx
Health information on dietary supplements, including vitamins and minerals.

Key Terms
The terms listed are used on the page indicated. Definitions of the terms are in the Glossary at the end of the book.

acupuncture  578
Ayurveda  579
chiropractic  581
complementary and alternative medicine (CAM)  577
gingivitis  568
gum disease  568
health maintenance organization (HMO)  586
herbal medicine  580
holistic  577
home health care  585
homeopathy  579
informed consent  573
integrative medicine  578
managed care  586
medical history  571
naturopathy  579
Pap smear  572
periodontitis  568
plaque  568
preferred provider organization (PPO)  586
primary care  583
quackery  576
vital signs  567
This page contains questions for this chapter only

Chapter 17
1. b; 2. a; 3. d; 4. c; 5. b; 6. d; 7. d; 8. b; 9. d; 10. a
7. National Center for Complementary and Alternative Medicine, [URL].

This page contains references for this chapter only

Chapter 17