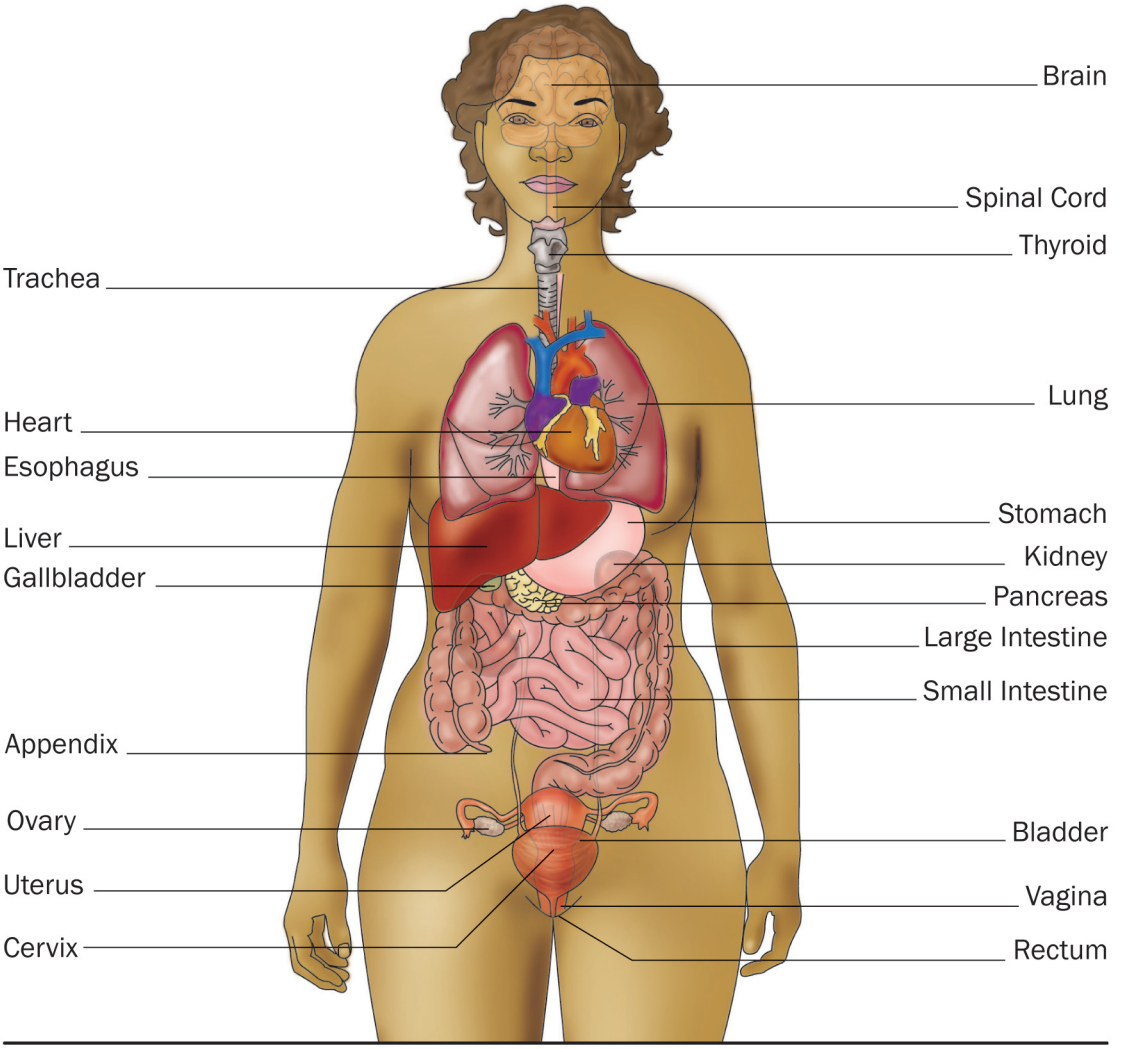
Appendix

Additional Health Information and Tips

Know Your Body



Women's Body Systems

Cardiovascular and Circulatory

Digestive (gastrointestinal)

Endocrine

Nervous (neurologic) and Skeletal

Reproductive

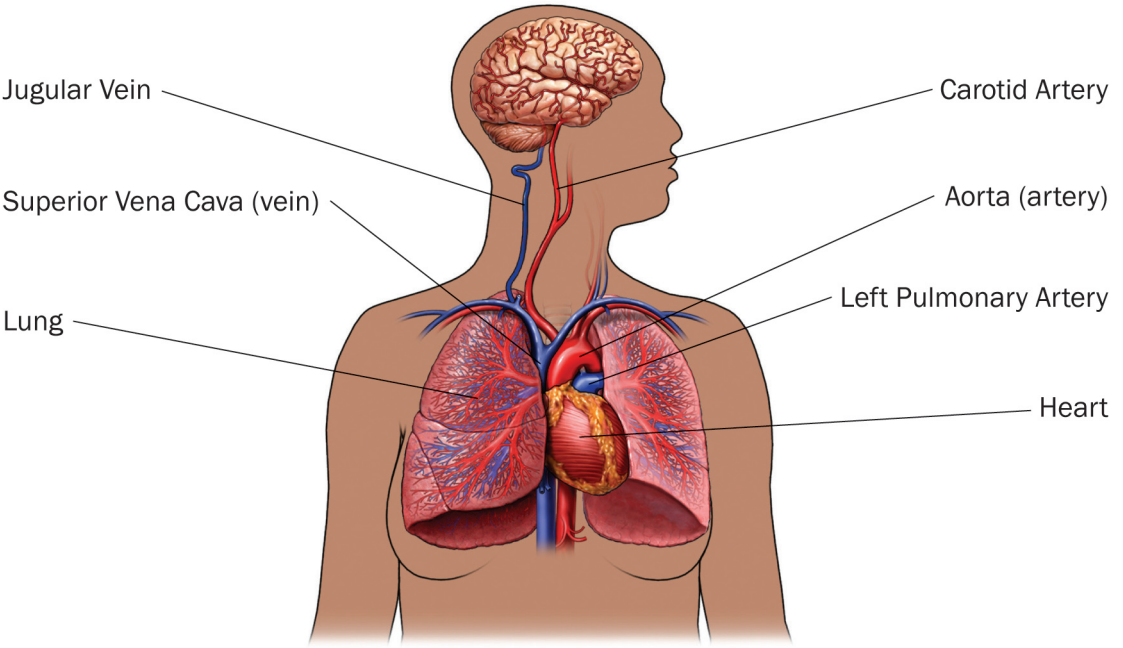
Respiratory

Urinary (renal)

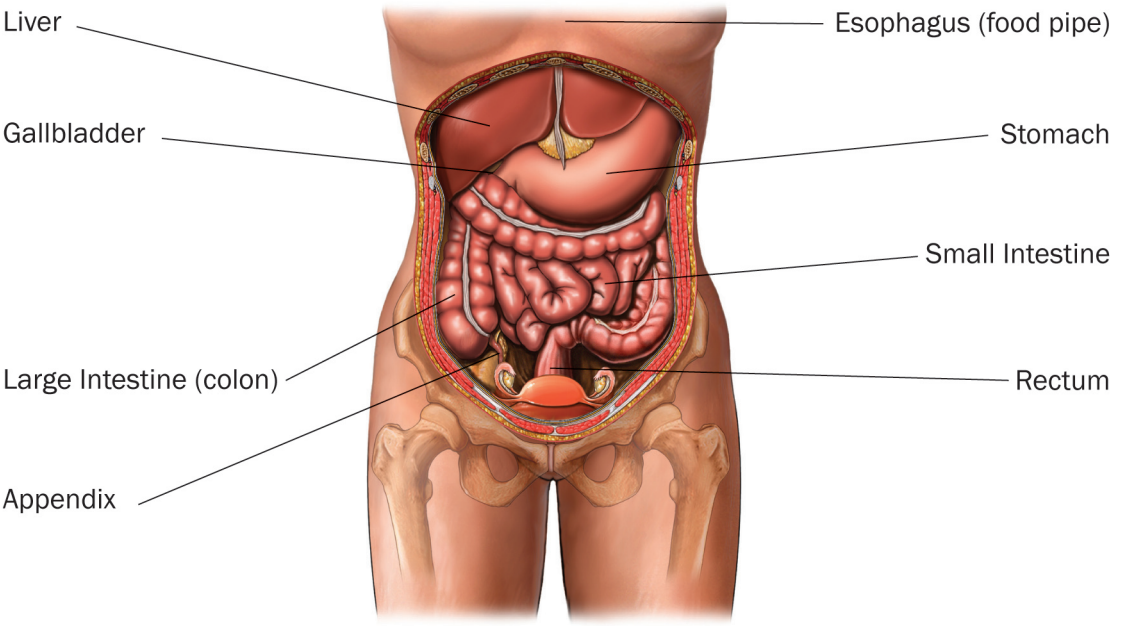
See the systems diagrams on pages 387-390

Know Your Body

Cardiovascular and Circulatory Systems

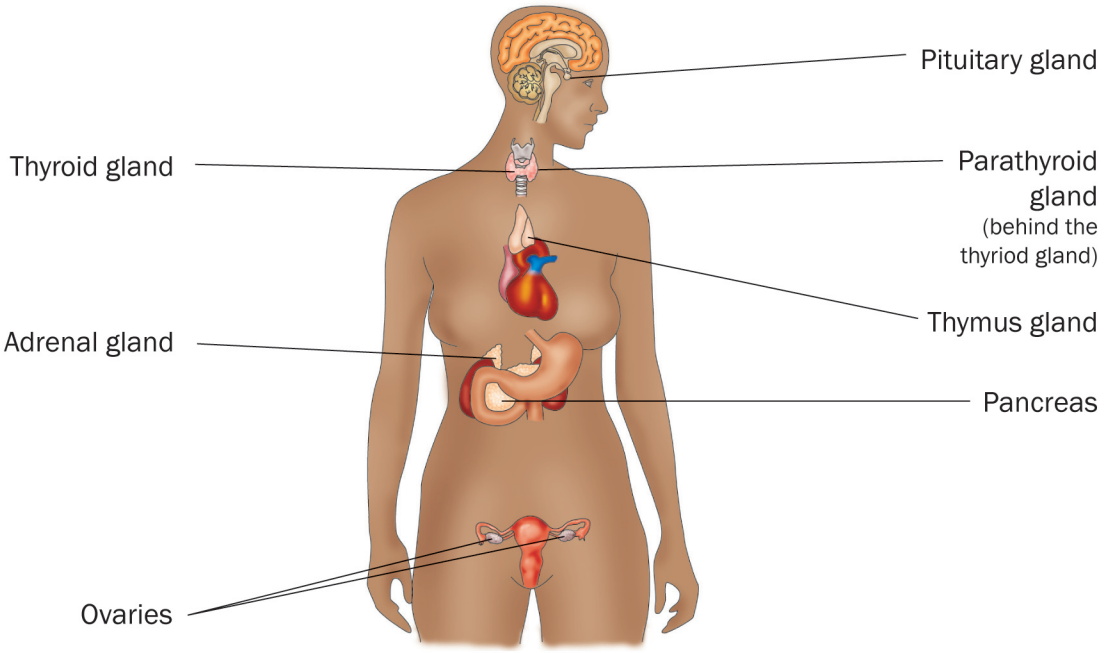


Digestive (gastrointestinal) System

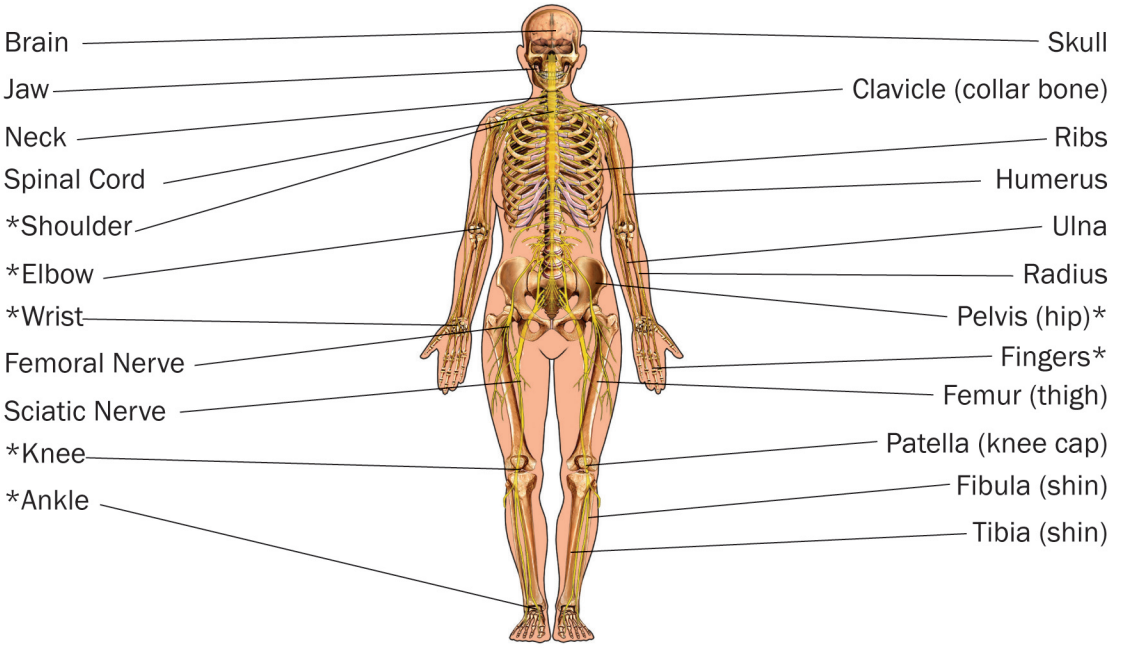


Know Your Body

Endocrine System



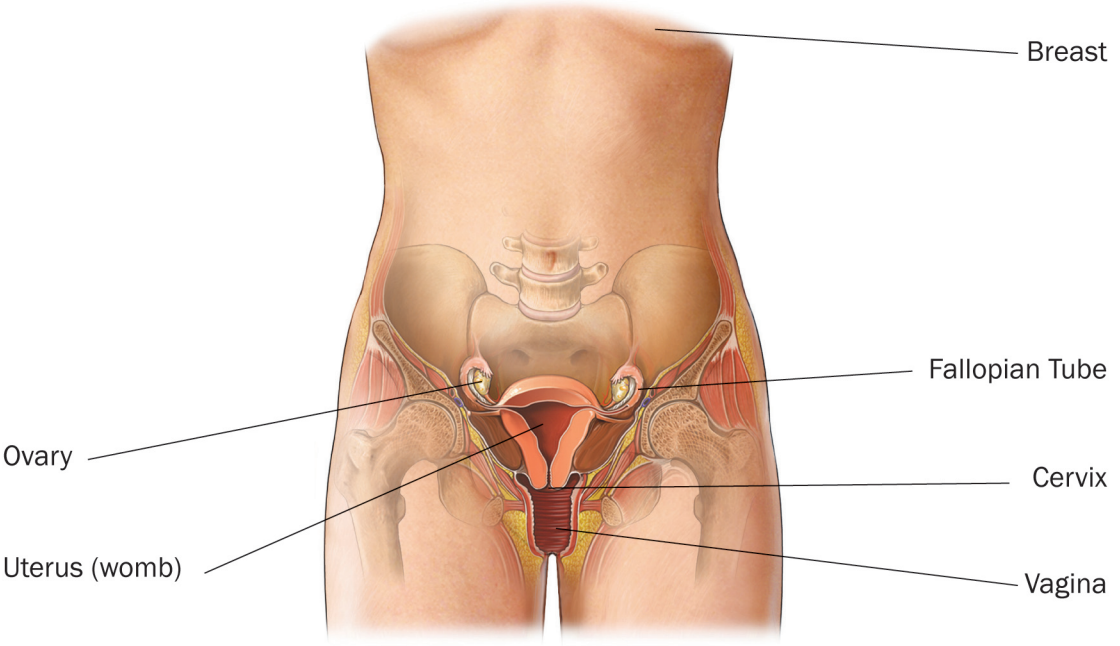
Nervous (neurologic) and Skeletal Systems



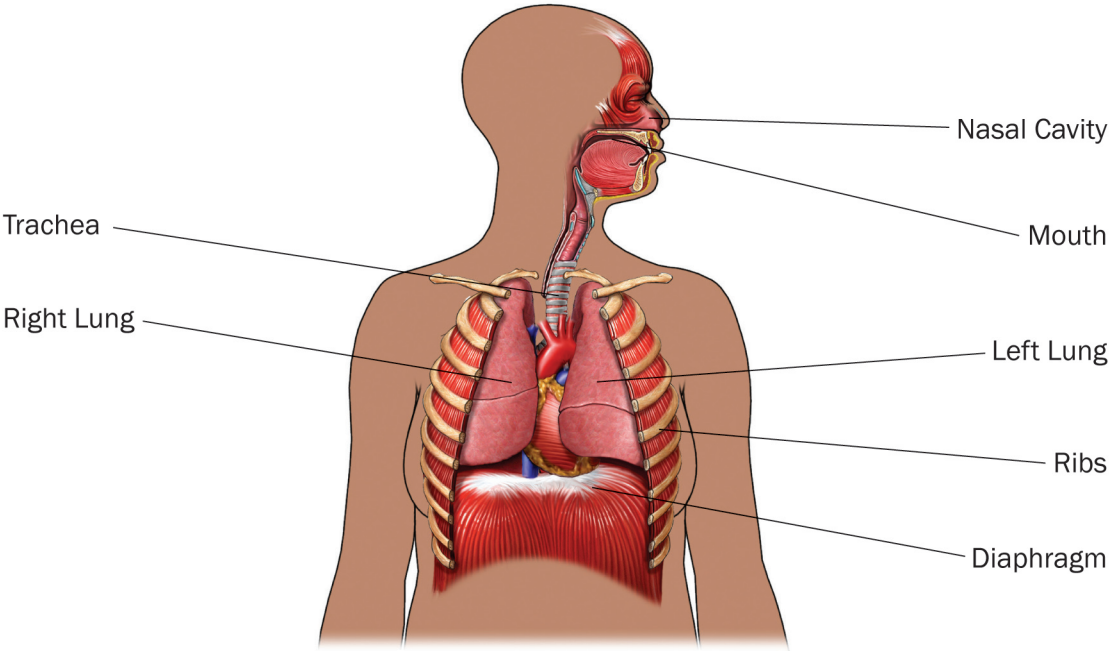
*Major joints where arthritis or joint disease can occur.

Know Your Body

Reproductive System

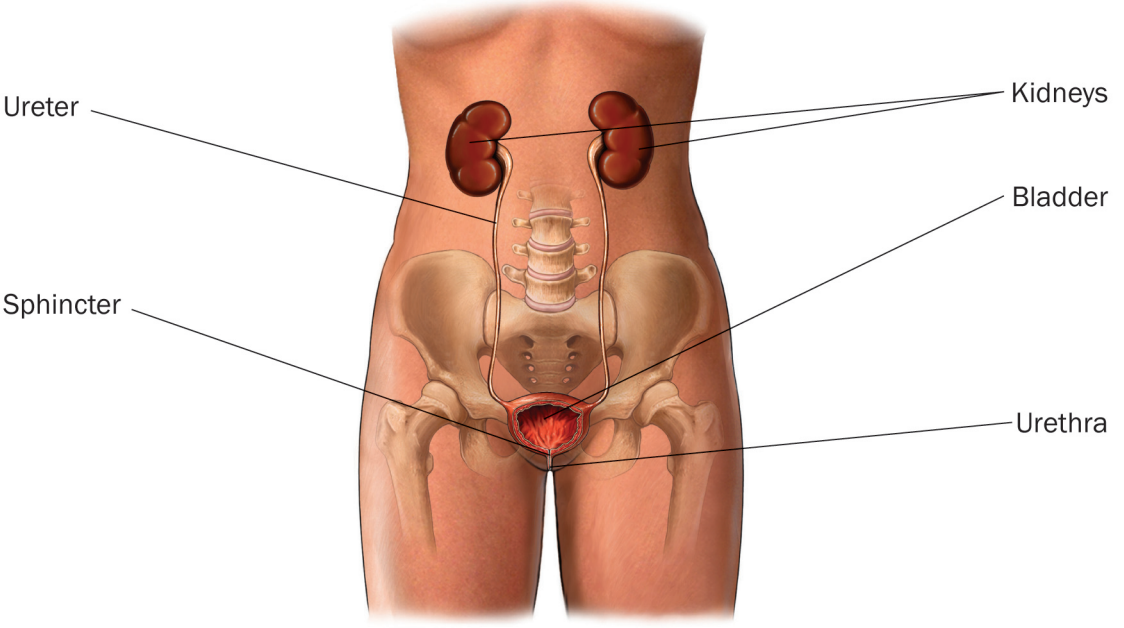


Respiratory System



Know Your Body

Urinary (renal) System



HOW TO

Talk to Your Doctor or Nurse

Waiting in your doctor's office can make you feel nervous, impatient, or even scared. You might worry about what's wrong with you. You might feel annoyed because you're not getting other things done. Then when you see your doctor or nurse, the visit seems to be so short. You might have only a few minutes to explain your symptoms and concerns. Later that day, you might remember something you forgot to ask. You wonder if your question and its answer matter. Knowing how to talk to your doctor, nurse, or other members of your health care team will help you get the information you need.

Tips: What to do

- **List your questions and concerns.** Before your appointment, make a list of what you want to ask. When you're in the waiting room, review your list and organize your thoughts. You can share the list with your doctor or nurse.
- **Describe your symptoms.** Say when these problems started. Say how they make you feel. If you know, say what sets them off or triggers them. Say what you've done to feel better.
- **Give your doctor a list of your medications.** Tell what prescription drugs and over-the-counter medicines, vitamins, herbal products, and other supplements you're taking.
- **Be honest about your diet, physical activity, smoking, alcohol or drug use, and sexual history.** Not sharing information with your doctor or nurse can be harmful!
- **Describe any allergies to drugs, foods, pollen, or other things.** Don't forget to mention if you are being treated by other doctors, including mental health professionals.
- **Talk about sensitive topics.** Your doctor or nurse has probably heard it before! Don't leave something out because you're worried about taking up too much time. Be sure to talk about all of your concerns before you leave. If you don't understand the answers your doctor gives you, ask again.
- **Ask questions about any tests and your test results.** Get instructions on what you need to do to get ready for the test(s). Ask if there are any dangers or side effects. Ask how you can learn the test results. Ask how long it will take to get the results.
- **Ask questions about your condition or illness.** When your illness is diagnosed, ask your doctor how you can learn more about it. What caused it? Is it permanent? What can you do to help yourself feel better? How can it be treated?
- **Tell your doctor or nurse if you are pregnant or intend to become preg-**

nant. Some medicines may not be suitable for you. Other medicines should be used with caution if you are pregnant or about to become pregnant.

- **Ask your doctor about any treatments he or she recommends.** Be sure to ask about all of your options for treatment. Ask how long the treatment will last. Ask if it has any side effects. Ask how much it will cost. Ask if it is covered by your health insurance.
- **Ask your doctor about any medicines he or she prescribes for you.** Make sure you understand how to take your medicine. What should you do if you miss a dose? Are there any foods, drugs, or activities you should avoid when taking the medicine? Is there a generic brand of the drug you can use? You can also ask your pharmacist if a generic drug is available for your medication.
- **Ask more questions if you don't understand something.** If you're not clear about what your doctor or nurse is asking you to do or why, ask to have it explained again.
- **Bring a family member or trusted friend with you.** That person can take notes, offer moral support, and help you remember what was discussed. You can have that person ask questions, too!
- **Call before your visit to tell them if you have special needs.** If you don't speak or understand English well, the office may need to find an interpreter. If you have a disability, ask if they can accommodate you. ■

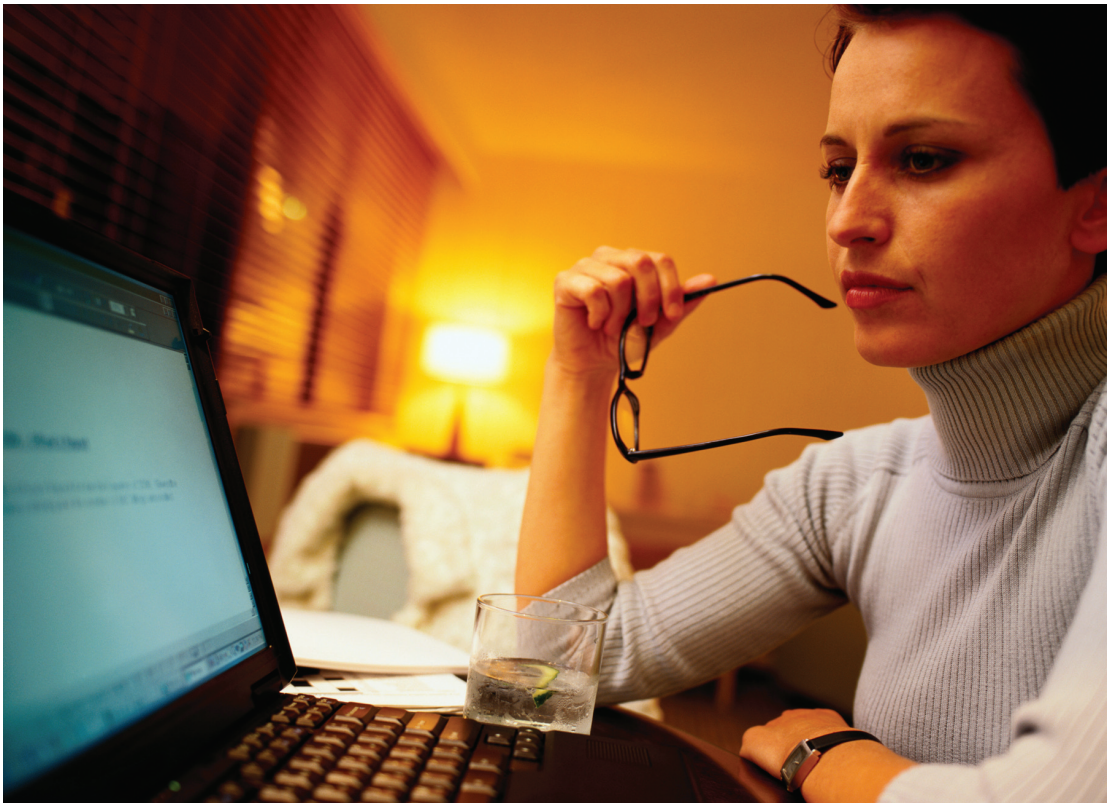
HOW TO
Get a Second Opinion

Even though doctors may get similar medical training, they can have their own opinions and thoughts about how to practice medicine. They can have different ideas about how to diagnose and treat conditions or diseases. Some doctors take a more conservative, or traditional, approach to treating their patients. Other doctors are more aggressive and use the newest tests and therapies. It seems like we learn about new advances in medicine almost every day.

Many doctors specialize in one area of medicine, such as cardiology or obstetrics or psychiatry. Not every doctor can be skilled in using all the latest technology. Getting a second opinion from a different doctor might give you a fresh perspective and new information. It could provide you with new options for treating your condition. Then you can make more informed choices. If you get similar opinions from two doctors, you can also talk with a third doctor.

Tips: What to do

- **Ask your doctor for a recommendation.** Ask for the name of another doctor or specialist, so you can get a second opinion. Don't worry about hurting your doctor's feelings. Most doctors welcome a second opinion, especially when surgery or long-term treatment is involved.
- **Ask someone you trust for a recommendation.** If you don't feel comfortable asking your doctor for a referral, then call another doctor you trust. You can also call university teaching hospitals and medical societies in your area for the names of doctors. Some of this information is also available on the Internet.
- **Check with your health insurance provider.** Call your insurance company before you get a second opinion. Ask if they will pay for this office visit.



Many health insurance providers do. Ask if there are any special procedures you or your primary care doctor needs to follow.

- **Ask to have medical records sent to the second doctor.** Ask your primary care doctor to send your medical records to the new doctor. You need to give written permission to your current doctor to send any records or test results to a new doctor. You can also ask for a copy of your own medical records for your files. Your new doctor can then examine these records before your office visit.
- **Learn as much as you can.** Ask your doctor for information you can read. Go to a local library. Search the Internet. Find a teaching hospital or university that has medical libraries open to the public. The information you find can be hard to understand, or just confusing. Make a list of your questions, and bring it with you when you see your new doctor.
- **Do not rely on the Internet or a telephone conversation.** When you get a second opinion, you need to be seen by a doctor. That doctor will perform a physical examination and perhaps other tests. The doctor will also thoroughly review your medical records, ask you questions, and address your concerns. ■

HOW TO

Be Prepared for Emergencies

When disaster strikes, you may not have much time to act. To help protect loved ones, take simple steps now to prepare your family for sudden emergencies or other disasters.

Three basic steps for disaster or emergency preparedness

1. **KNOW** what natural or other disasters could occur in your area and how to prepare for them. Learn about local evacuation routes, so that you know how to leave an area quickly. The Federal Emergency Management Agency offers information on preparedness at www.fema.gov.
2. **PLAN** out on paper the steps you should take during an emergency and give family members a copy. Talk about potential disasters or emergencies and how to respond to each. Choose a meeting place, other than your home, for family members to gather in case you can't go home. Make sure you choose an "emergency check-in" contact person and teach your children the phone number for this person.
3. **PACK** emergency supplies in your home to meet your needs for 3 days. Always keep all your important documentation together, in one place, in case you have to "grab and go" during an evacuation.

Need to evacuate? Have a kit ready that includes:

- identification for yourself and your children, such as birth certificates and social security cards
- important personal papers, such as health insurance identification cards, immigration papers, and children's school records
- funds in the form of cash, traveler's checks, credit cards, and checkbook
- keys to the house, car, and safety deposit box or post office box
- ways to communicate, including a calling card, cell phone and extra battery, and the emergency check-in number for family members to call
- prescription medications, including written prescription orders, and supplies such as contact lens cleaner and feminine hygiene products

Essential items for disaster preparedness

Relief workers will most likely be on the scene after a disaster, but they cannot reach everyone immediately. Gather the supplies below in case you have to stay where you are.

Water. Keep at least a 3-day supply of water for each person, stored in plastic containers. Each person needs 1 gallon of water each day.

Food. Store at least a 3-day supply of nonperishable food such as canned meat, beans, vegetables, fruit and juices; peanut butter or other high-energy food; and unsalted crackers. Keep a nonelectric can opener handy. If you have pets, stock up on canned pet food.

Infant care. Store baby formula and water to prepare it if a child is not breastfed. If you need to evacuate quickly, bring towels or sheets to carry a baby instead of a bulky stroller.

Other supplies. Make sure you have large plastic bags that seal for waterproofing important papers, a battery-powered flashlight and radio with extra batteries, and a first aid kit.

Breastfeeding during an emergency

When an emergency occurs, breastfeeding saves lives.

- Breastfeeding protects babies from the risks of a contaminated water supply.
- Breastfeeding helps protect against respiratory illnesses and diarrhea—diseases that can be fatal in populations displaced by disaster.

The basics of breastfeeding during an emergency are much the same as they are in normal times. Continuing to breastfeed whenever the baby seems hungry maintains a mother's milk supply and is calming to both mother and baby. Visit www.lalecheleague.org for information on how to breastfeed in an emergency, even if you have been giving your baby formula. (See the *Breastfeeding* chapter on page 187 for more information.)

Food and water safety during an emergency

Food may not be safe to eat during and after an emergency. Water may not be safe to drink, clean with, or bathe in after an emergency such as a hurricane or flood because it can become contaminated with bacteria, sewage, agricultural or industrial waste, chemicals, and other substances that can cause illness or death. The Centers for Disease Control and Prevention has information about keeping your food and water safe at www.bt.cdc.gov/disasters/foodwater.

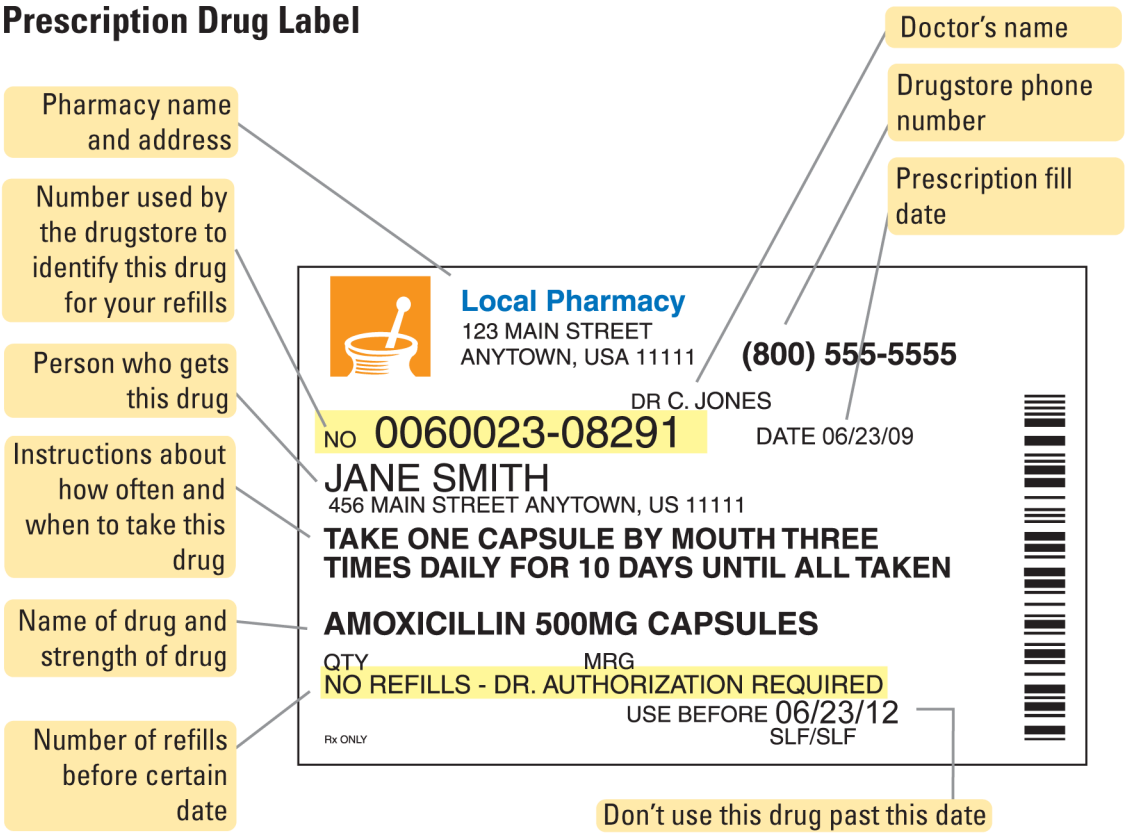
Staying safe from violence during an emergency

After disasters, women are at greater risk of sexual assault or other violence. Visit www.womenshealth.gov/violence for safety tips. ■

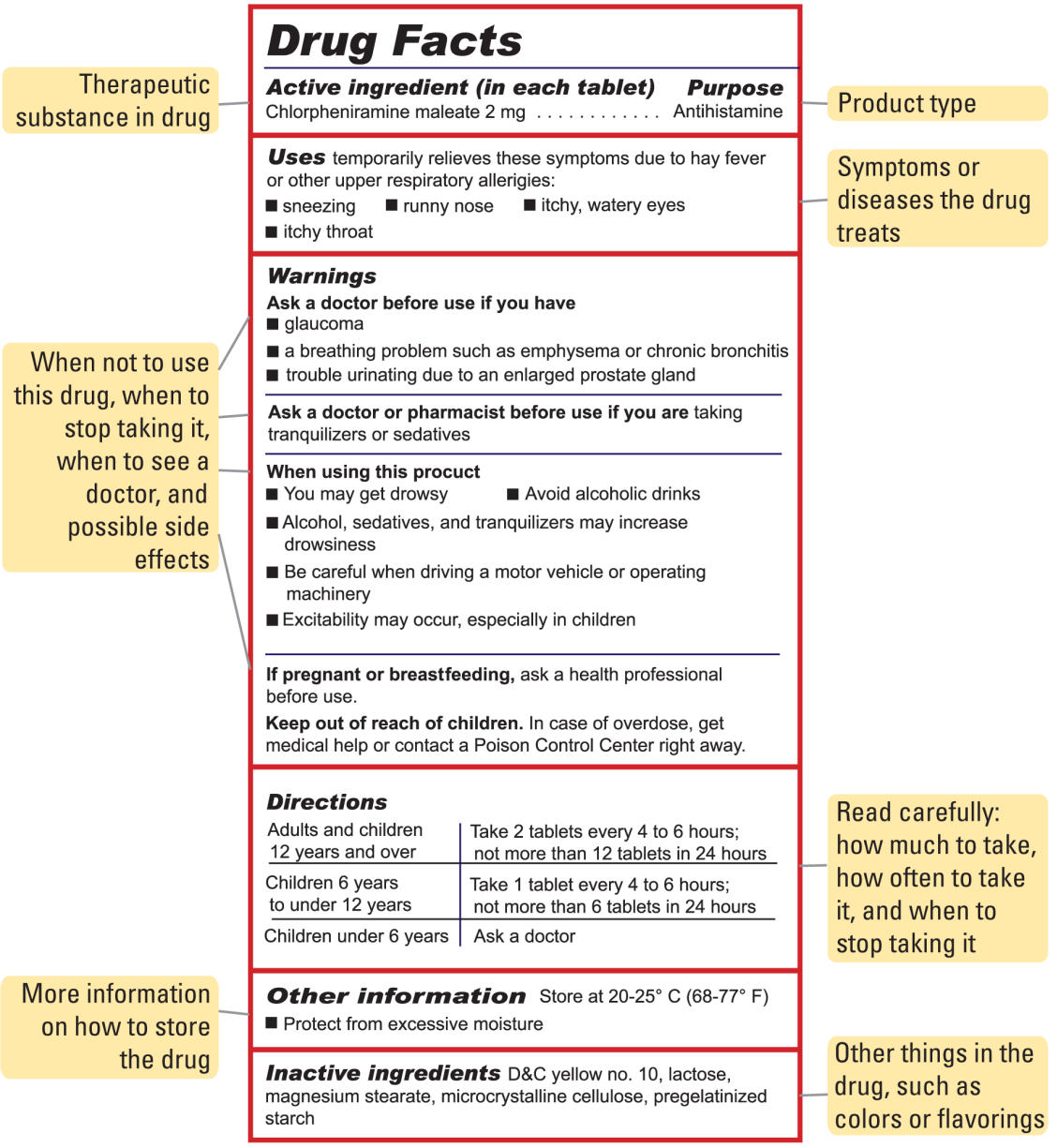
HOW TO
Read Drug Labels

Medicines, or drugs, come as either prescription or over the counter (OTC). Prescription drugs are used under a doctor's care. OTC drugs can be bought and used without a doctor's prescription, and you buy them at a drugstore or grocery store. When using any kind of drug, it's really important to read the drug label for instructions. Not following the instructions can hurt your health. Read the label each time you use a new bottle of a drug, just in case there have been changes to it since the last time you used it. See the drug label below and on the next page to know what to look for. If you read the label and still have questions, call your doctor, nurse, or pharmacist for help. ■

Prescription Drug Label



Over-the-Counter (OTC) Medicine Label



Environmental Health

The quality of the environment can affect women's health. Chemicals and other substances in the air, water, soil, and food may be toxic and cause health problems. The quality of the environment may have a greater impact on children than adults. This is because children are growing quickly and breathe more air, eat more food, and drink more water. Some toxins can be passed from mother to child during pregnancy or breastfeeding. If you are pregnant, nursing, or planning to become pregnant, talk to your doctor about environmental exposures you should avoid.

Outdoor air

There are many sources of pollution outdoors, such as emissions from cars and trucks, power plants that burn fossil fuels, factories, and forest fires.

Outdoor air pollution can irritate your eyes, nose, and throat. At high levels, some outdoor air pollutants may cause more serious health problems like cancer and lung damage. Children, the elderly, and people with heart or lung conditions are more likely to be affected by some types of outdoor air pollution.

The U.S. Environmental Protection Agency (EPA) protects the quality of the air throughout the country. However, some areas may have higher levels of outdoor air pollution than others. Find out about the air quality in your community. Check the daily Air Quality Index (AQI) in your local radio, television, or newspaper forecast. You can also

find your AQI online at the EPA's Web site.

You can reduce your exposure to air pollution by limiting outdoor activities when the AQI is high. By using less energy, you can help reduce the air pollution that comes from burning fossil fuels.

- Replace incandescent lightbulbs with compact fluorescent bulbs.
- Turn off lights and appliances when they're not in use.
- Reuse and recycle to conserve raw materials and energy.
- Buy ENERGY STAR appliances.
- Choose a vehicle with good fuel economy and low emissions.
- Drive less. Carpool, walk, bike, or use public transportation if you can.

Indoor air

Indoor air pollution can irritate your eyes, nose, and throat. It can cause headaches or make you feel dizzy or tired. These symptoms may seem similar to the symptoms of a cold or flu. But if your symptoms disappear when you are away

from home, you may have an indoor air problem.

Indoor air pollution can also lead to serious health problems, such as heart and lung diseases and cancer. These problems may develop many years after exposure or after repeated exposures to indoor air pollutants.

Children, the elderly, and people with heart or lung conditions are more likely to be affected by indoor air pollution.

Some common sources of indoor air pollution include:

- gases from burning oil, gas, coal, wood used for heating and cooking
- smoke from tobacco products
- building materials, such as asbestos insulation and products made from pressed wood
- outdoor pollutants, such as radon, which can build up indoors
- chemicals used for cleaning, pest control, and painting
- personal care products such as hair spray and nail polish remover
- biological pollutants, such as bacteria, molds, mildew, and pet dander

You can improve the air quality in your home:

- Remove sources of pollution.
- Increase the ventilation (flow of air). Run exhaust and attic fans or open doors and windows. This is especially important when using household products that contain harmful chemicals.
- Use a home air cleaner to remove pollutants, if necessary.

Water quality

EPA sets standards for safe drinking water. Public water systems must meet these standards. Tap water, well water, and even bottled water may contain very small amounts of contaminants such as chemicals and bacteria. As long as levels are low enough to meet EPA's safety standards, your water is safe to drink.

You can take steps to make sure your water is safe to drink.

- People with weakened immune systems, infants, children, and the elderly may be more sensitive to some contaminants. Talk to your doctor about whether you need to take extra precautions.
- If your water comes from a private well, have your water tested at least once a year. Contact your local, county, or state health department for more information about water testing. Some health departments may help you with testing. If not, they can recommend a state-certified laboratory in your area.
- If your water comes from a public source, your water supplier is required to send you an annual water quality report.

Lead

Lead exposure can cause reproductive problems, high blood pressure, muscle and joint pain, and problems with memory or concentration. Lead can harm the developing brain and nervous system of children, infants, and unborn children.

Some common sources of lead exposure include:

- lead-based paint in houses built before 1978
- soil and household dust that may contain chips or dust from lead-based paints
- water from lead-lined pipes

You can reduce your exposure to lead.

- Have your home tested for lead.
- If you plan to remove or disturb lead-based paint, hire a contractor with special training. Leave the house until renovations are complete and the house is cleaned to remove any lead dust.
- Use only cold water to cook or to make baby formula.
- Run cold water for at least 1 minute before using it.
- Use a water filter certified by NSF (National Sanitation Foundation) International to remove lead.

Mercury

In both children and adults, high levels of mercury may affect the brain, heart, kidneys, lungs, and immune system. Children, infants, and unborn babies are most sensitive to mercury.

The most common source of exposure to mercury is fish and shellfish, which contain small amounts of mercury. Different kinds of fish contain different amounts. Women who may become pregnant, women who are pregnant or nursing, and young children should follow these guidelines:

- Don't eat shark, swordfish, king mackerel, or tilefish.
- Eat no more than 12 ounces (about 2 meals) of fish low in mercury each week. Low-mercury fish include shrimp, canned light tuna, salmon, pollock, and catfish.
- Eat no more than 6 ounces (about 1 meal) of albacore (white) tuna each week.
- Before eating fish caught in your area, check local fish safety advisories.

Mercury may also be found in thermometers, thermostats, and fluorescent lightbulbs. If these items break, people may be exposed to mercury. Do not use a vacuum to clean mercury spills. Contact

your local health department to find out how to properly clean and dispose of spilled mercury.

Pesticides

Chemicals used to kill pests such as insects, rodents, and mold can also affect human health. At high levels, pesticides may cause birth defects, nerve damage, and cancer.

Small amounts of pesticides may be found in air, water, and food. EPA limits pesticides used in farming to make sure your food is safe. Pesticides used in and around your home may contribute to indoor air pollution.

You can reduce your exposure to pesticides.

- Wash and scrub fruits and vegetables under running water, peel off skins, and trim outer leaves.
- Trim fat from your meat.
- Choose organic foods, grown without the use of synthetic pesticides.
- Eat a variety of foods to avoid high exposure to a single pesticide.
- If you use pesticides in your home, follow the instructions carefully. Keep pesticides out of reach of children. ■

Resources:

U.S. Environmental Protection Agency
Web site: www.epa.gov

Indoor Air Quality Information Clearinghouse: www.epa.gov/iaq
Phone number: (800) 438-4318

National Lead Information Center: www.epa.gov/lead
Phone number: (800) 424-5323

Safe water information where you live: www.epa.gov/safewater/ccr/whereyoulive.html

Food Safety Information Center, USDA
Web site: http://foodsafety.nal.usda.gov
Phone number: (301) 504-6835

National Center for Environmental Health, CDC

Web site: www.cdc.gov/nceh
Phone number: (800) 232-4636

National Institute of Environmental Health Sciences, NIH
Web site: www.niehs.nih.gov

National Poison Control Hotline
Web site: www.poison.org
Phone number: (800) 222-1222

Avian Flu

Avian influenza (flu) is not the same as pandemic flu. A pandemic flu is a global outbreak of a flu. A pandemic can happen when a new virus appears that people have little or no immunity against and for which there is no vaccine. (Having immunity means you are resistant to, or protected against, a disease.) A new virus can spread quickly from person to person around the world, causing severe illness and even death. Although it is hard to know when the next flu pandemic will happen or how dangerous it will be, you can be informed and take steps to prepare your family. Avian flu has received a lot of attention in recent years, raising many questions about the dangers of a flu pandemic.

What is avian flu?

Avian or "bird" flu is caused by influenza viruses that naturally affect birds. Wild birds carry these highly contagious viruses, but they generally do not become sick. Domesticated birds, though, are at great risk. Avian flu can cause serious illness and death for infected chickens, ducks, and turkeys.

Why are health officials concerned about avian flu for humans?

Although people are not usually at risk of getting avian flu viruses, a virus called H5N1 is one of the few strains that has crossed over to infect people. The H5N1 virus is powerful, having caused the deaths of more than half of the people infected. Experts think most of these cases have been caused by contact with infected birds. To date, there has been limited spread of the virus from person to person. The concern is that H5N1 will change into a virus that can pass from person to person more easily and more quickly. An increasing number of human cases have been found in Asian, European, and African countries. Health officials are watching the situation closely to prepare for the possibility that the virus may spread to other parts of the world.

Will getting a seasonal flu shot prevent me from getting avian flu?

No. The flu shot can help protect you only from seasonal flu. No vaccine is available to protect against the H5N1 virus that has been found in people, but researchers are working on making one.

What are the symptoms of avian flu?

Symptoms can include regular flu symptoms such as fever, cough, sore throat, and muscle aches. Other symptoms may include eye infections, pneumonia, and severe respiratory problems. There may be other symptoms that we do not yet know about.

Are there treatments available for avian flu?

The H5N1 virus is resistant to two medicines used to treat the flu: amantadine (uh-MAN-tuh-deen) and rimantadine (rih-MAN-tuh-deen). Two other flu medicines called oseltamavir (o-suhl-TAM-uh-vihr) and zanamivir (zuh-NAM-uh-vihr) may work to treat the

flu caused by H5N1. More research is needed to test these medicines. Health researchers are also working on improving flu testing, to better detect which flu strain you have and where it came from. This will help government officials track dangerous flu viruses and help keep the public informed.

What can I do to help keep my family healthy?

You and members of your family can take steps to help limit the spread of germs.

- Wash your hands with soap and warm water often.
- Use an alcohol-based hand cleanser if you don't have soap handy.
- When coughing or sneezing, cover your mouth and nose with a tissue (or your upper sleeve if you don't have a tissue), throw used tissue away, and wash your hands afterward.
- If you are sick, stay home.
- It is also important to eat a balanced diet, drink plenty of water, get regular physical activity, and get enough rest.

What should I do to help my family prepare for a flu pandemic?

Visit www.pandemicflu.gov to learn how to prepare your family. This Web site provides preparation checklists for families and businesses, information for people who deal with poultry, and the latest information on how avian flu is affecting people around the world. If H5N1 does cause a pandemic flu, this Web site will offer important safety information. You can also call the Centers for Disease Control and Prevention Hotline at (800) CDC-INFO (800) 232-4636) or (888) 232-6348 (TDD) 24 hours a day, 7 days a week. ■

www.pandemicflu.gov
(800) CDC-INFO or
(888) 232-6348 (TDD)

Caregiver Stress

As the U.S. population ages, more people are faced with the responsibility of caring for elderly loved ones with Alzheimer's disease, cancer, or other health problems. Many parents are also raising children with severe disabilities at home. More often today, these caregivers are continuing to care for children with disabilities well into their adulthood.

The people needing care often need help with basic daily tasks. Caregivers help with a wide range of activities, including:

- cooking
- feeding
- giving medicine
- bathing
- running errands

People who do not get paid for providing care are known as informal caregivers or family caregivers. Most informal caregivers are women. Often, these women also have children to take care of and jobs outside the home.

Being an informal caregiver can have many rewards. It can give you a feeling of giving back to a loved one. It can make you feel needed and can lead to a stronger relationship with the person receiving care. However, caregiving can also take a toll on your mental and physical health.

What is caregiver stress?

Caregiver stress is the emotional strain of caregiving. It can take many forms. For instance, you may feel frustrated and angry taking care of someone with dementia (dih-MEN-chuh) who often wanders away or becomes easily upset. Or you may feel guilty because you think that you should be able to provide better care, despite all the other things that you have to do.

How can I tell if caregiving is putting too much stress on me?

Caregiving may be putting too much strain on you if you have any of the following symptoms:

- sleeping too much or too little
- gain or loss of a lot of weight
- feeling tired most of the time
- loss of interest in activities you used to enjoy
- becoming easily irritated or angered
- often feeling sad
- frequent headaches, bodily pain, or other physical problems
- abuse of alcohol or drugs, including prescription drugs

Talk to a counselor, psychologist, or other mental health professional right away if your stress leads you to physically or emotionally harm the person you are caring for.

How can caregiver stress affect my health?

Research shows that, compared with noncaregivers, caregivers:

- are more likely to have symptoms of depression or anxiety
- are more likely to have heart disease, cancer, diabetes, and arthritis

- have a weaker immune response, which can lead to frequent infections and increased risk of cancers
- have higher levels of obesity
- may be at higher risk of mental decline, including problems with memory and paying attention

What can I do to prevent or relieve stress?

First, never dismiss your feelings as "just stress." Caregiver stress can lead to serious health problems and you should take steps to reduce it as much as you can. Tips for reducing caregiver stress:

- Ask for and accept help.
- Say "no" to requests that are draining, such as hosting holiday meals.
- Stay in touch with family and friends.
- Join a caregiver support group.
- Attend a class to learn how to take care of someone with the disease that your loved one has.
- Prioritize, make lists, and establish a daily routine.
- Set realistic goals for each day.
- Get an annual medical checkup.
- Stay active, eat a healthy diet, and try to get enough sleep.

What caregiving services can I find in my community?

Caregiving services include:

- transportation
- meal delivery
- home health care services (such as nursing or physical therapy)
- nonmedical home care services (such as housekeeping or cooking)
- home modification (changes to the home that make it easier for your loved one to perform basic daily tasks, such as bathing, using the toilet, and moving around)
- legal and financial counseling

What can I do if I need a break?

Taking some time off from caregiving can reduce stress. "Respite care" provides substitute caregiving to give the regular caregiver a much-needed break. Respite care may be provided by:

- home health care workers
- adult day-care centers
- short-term nursing homes

How do I find out about caregiving services in my community?

Contact your local Area Agency on Aging (AAA) to learn about caregiving services where you live. AAAs are usually listed in the city or county government sections of the telephone directory under "Aging" or "Health and Human Services." The National Eldercare Locator, a service of the U.S. Administration on Aging, can also help you find your local AAA.

Resources:

Administration on Aging
www.aoa.gov
www.eldercare.gov
Eldercare Locator: (800) 677-1116

Family Caregiver Alliance
www.caregiver.org ■

Understanding Genetics and Your Health

Humans have between 20,000 and 25,000 genes. Most genes are the same in all people. But small differences in these genes give you a one-of-a-kind look and contribute to your personality and talents. Genes also can affect your health. To understand how, it's helpful to learn what genes do.

Genes: Your body's blueprint

Genes, which are made up of DNA, contain the instructions your body's cells need to function. Genes are located on structures called chromosomes. Information from your genes is used to make proteins. Each cell contains thousands of proteins. Each protein has a specific job to do at a specific time for the cell to work properly.

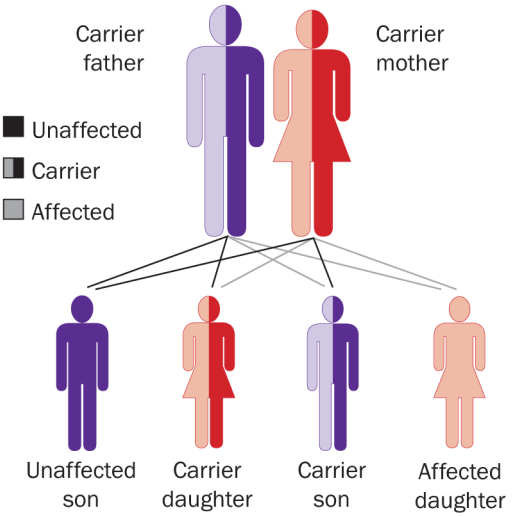
Sometimes, a gene can have something wrong with it. This is called a gene mutation or a mutated gene. A mutation causes the gene to give the wrong instructions for making a protein, so that the protein works improperly or is missing. If the mutation affects a protein that plays an important role in the body, a medical problem could result. Most gene mutations have no effect on health or development.

Genetic disorders: The basics

The genes you are born with can affect your health in these ways:

- **Single gene disorders are caused by a mutation in one gene.** There is a pat-

How sickle cell anemia runs in families



Two unaffected parents each carry one copy of a gene mutation for sickle cell anemia. They have one child with sickle cell anemia and three unaffected children. Two of the unaffected children inherit one copy of the gene mutation—as carriers, they can pass the sickle cell trait on to their children.

We are learning more and more about the role specific genes play in our health. For example, you may have heard about "breast cancer genes," called *BRCA* genes. All people have *BRCA* genes. But only women and men born with mutated *BRCA* genes are at higher risk of breast cancer. Still, some women born with mutated *BRCA* genes don't get breast cancer. And most women who get breast cancer are born with normal *BRCA* genes. Keep in mind that genes themselves do not cause disease, but that mutated genes may cause health problems.

tern to the way these genetic disorders show up in families. Even though the mutated gene is passed down from parent to child, not all family members are affected. Some members are "carriers" of the mutated gene. Examples of single-gene disorders are cystic fibrosis (SISS-tik-feye-BROH-suhss) and sickle cell anemia (uh-NEE-mee-uh).

- **Chromosome disorders occur when all or part of a chromosome is missing or extra, or if the structure of one or more chromosomes is not normal.** This can affect some of the genes. Most chromosome disorders involving whole chromosomes do not run in families. Genes can influence your risk of getting some diseases, such as breast cancer, heart disease, diabetes, and thyroid conditions. But other factors, such as lifestyle and environment, also play a role in developing these conditions. Rarely, single genes are responsible for these diseases; however, most of the time they are due to a combination of genes and environment. The role genes play in developing these conditions often is not known, but our understanding of this continues to grow through research.

Genetic counseling: What it is and who needs it

Genetic counseling gives information and support to people who have, or may be at risk of, genetic disorders. Some reasons a family might seek genetic counseling are:

- a family history of a genetic condition, birth defect, chromosomal disorder, or cancer
- two or more pregnancy losses, a stillbirth, or a baby who died
- a child with a known inherited disorder, birth defect, mental retardation, or developmental delay
- a woman who is pregnant or plans to become pregnant at 35 years or older
- test results that suggest a genetic condition is present
- increased risk of getting or passing on a genetic disorder because of one's ethnic background
- people related by blood who want to have children together

Your doctor can help you find a genetic professional if you might benefit from this service. During a consultation, the genetics professional meets with a person or family to discuss genetic risks or to diagnose, confirm, or rule out a genetic condition. Sometimes, a family chooses to have genetic testing. Most of the time, testing is used to find changes that are linked to genetic disorders. The results can confirm or rule out a condition. Tests also can help to know the chances that a person will get or pass on a genetic disorder. The genetics professional can help a family decide if genetic testing is the right choice for them. ■

Some companies offer genetic tests that you can do yourself through the mail. These tests may not provide true or meaningful information. These tests might even provide harmful information to consumers. Talk to your doctor before using this type of test.

Becoming a Research Volunteer

Today, women are living longer and healthier lives thanks, in part, to medical research. Because of research studies:

- We know what foods to eat to prevent heart disease.
- Doctors have better tools to detect health problems, such as mammograms for breast cancer.
- New drugs are available to treat diabetes, depression, and other diseases.
- We know that women respond differently than men to some drugs and medical treatments.

Important findings like these are not possible without the help of research volunteers. Many volunteers—and especially women—are needed for research studies. Whether to participate in a research study is a personal choice. Getting all the facts about the study will help you decide if volunteering is right for you.

Frequently asked questions about research studies

Are there different kinds of research studies?

Yes. Here are some examples.

- **Observational studies** follow one or more groups of the same people over a period of time to see how their health changes. A recent example is the Women's Health Initiative. This study tracked 93,676 postmenopausal women for about 8 years to learn more about risk factors for heart disease, cancer, and fractures.
- **Intervention studies** seek to improve people's health by finding ways to change behavior. An example would be a study to see whether teaching people how to read food labels leads to a healthier diet.
- **Clinical trials** are research studies that test new medical approaches in people. This includes new drugs and other treatments.

Where do research studies take place?

Research studies take place in doctors' offices, cancer centers, hospitals, and clinics in towns and cities across the United States and around the world. Some studies are held in a single location. Others involve hundreds of locations at the same time. Many types of organizations and individuals sponsor (fund) research studies. Many clinical trials are sponsored by government agencies or pharmaceutical companies. Some studies require you to travel, but sometimes a blood or other sample is all that is needed to participate.

What happens in a research study?

This depends on the type of study. For example, a study might ask you to keep track of how often you eat certain foods. Or a study might involve taking a drug and frequent visits to the doctor for tests. For all studies, you will work closely with the research team. The team will give you specific instructions according to the study's "protocol." The protocol is a carefully controlled study plan.

Who can participate in a research study?

The study's protocol sets guidelines about who can participate. Sometimes, a person who is willing to participate does not qualify. If this happens to you, don't take the rejection personally. Strict participation guidelines are in place to keep participants safe and to ensure that study results are reliable.

Will participation in a research study help me?

Research is not the same as treatment. Sometimes, participation in clinical trials gives you access to new treatments or drugs before they become widely available. These treatments may or may not help you. There also might be unpleasant, serious, or even life-threatening side effects. Or a study could involve not using a drug that can help you. Even if you are not helped personally, the study results could help many others in the future.

How will my safety be protected?

Researchers are required to care for your well-being just like the doctors who provide your regular medical care. Also, medical research studies that involve people have federally controlled safeguards, such as an "institutional review board," or IRB. The IRB is a group of people who make sure that a trial is ethical and the rights of participants are protected. Keep in mind that "protected" doesn't mean the study is risk free.

What is informed consent?

This is the process of learning the key facts about the research study before deciding whether to participate. The research team will explain all the study details to you. This includes the purpose of the study, how the trial might affect your daily life, how long the study will last, and the potential benefits and risks of participating. It's helpful to have a friend or family member with you during this discussion. If you agree to participate after learning all the facts, you will be asked to sign an informed consent form. This is not a contract. By signing the form, you are showing that you understand what is involved.

Who will pay for my medical care during the trial?

This depends on the study and your health insurance plan. Health plans do cover the costs that are part of your routine medical care. Often health plans do not cover the patient care costs related to clinical trials they deem to be "experimental." In many cases, the research team can help by talking with your plan provider. Also, many states require health plans to cover the costs for certain clinical trials, such as for new cancer treatments. There also are some government programs to help pay the costs of care. The research team can help you sort through any cost issues.

Can I quit after the study has begun?

Yes. You can leave a research study at any time. But be sure to tell the research team that you are withdrawing and your reasons why. ■

Where do I find out about research studies?

Talk to your doctor if you are interested in becoming a research volunteer. You also can find out about clinical trials at www.clinicaltrials.gov.

Important Screenings and Tests

Common Screening and Diagnostic Tests Explained

Test name	Definition
Angiography (an-jee-OG-ruh-fee)	Exam of your blood vessels using x-rays. The doctor inserts a small tube into the blood vessel and injects dye to see the vessels on the x-ray.
Barium enema	A lubricated enema tube is gently inserted into your rectum. Barium flows into your colon. An x-ray is taken of the large intestine.
Biopsy	A test that removes cells or tissues for examination by a pathologist to diagnose for disease. The tissue is examined under a microscope for cancer or other diseases.
Blood test	Blood is taken from a vein in the inside elbow or back of the hand to test for a health problem.
Bone mineral density (BMD) test	Special x-rays of your bones are used to test if you have osteoporosis, or a weakening of the bones.
Bronchoscopy (brong-KOSS-kuh-pee)	Exam of the lungs. A bronchoscope, or flexible tube, is put through the nose or mouth and into your trachea (windpipe).
Clinical breast exam (CBE)	A doctor, nurse, or other health professional uses his or her hands to examine your breasts and underarm areas to find lumps or other problems.
Chest x-ray	An x-ray of the chest, lungs, heart, large arteries, ribs, and diaphragm.
Colonoscopy (KOH-luhn-OSS-kuh-pee)	An examination of the inside of the colon using a colonoscope, inserted into the rectum. A colonoscope is a thin, tube-like instrument with a light and lens for viewing. It may also have a tool to remove tissue to be checked under a microscope for disease.
Computed tomography (tuh-MOG-ruh-fee) (CT or CAT) scan	The patient lies on a table and x-rays of the body are taken from different angles. Sometimes, a fluid is used to highlight parts of the body in the scan.
Echocardiography (ek-oh-kar-dee-OG-ruh-fee)	An instrument (that looks like a microphone) is placed on the chest. It uses sound waves to create a moving picture of the heart. A picture appears on a TV monitor, and the heart can be seen in different ways.
Electrocardiography (ih-lek-troh-kar-dee-OG-ruh-fee) (ECG or EKG)	A test that records the electrical activity of the heart, using electrodes placed on the arms, legs, and chest.
Electroencephalography (ih-lek-troh-en-sef-uhl-OG-ruh-fee) (EEG)	A test that measures the electrical activity of the brain, using electrodes that are put on the patient's scalp. Sometimes patients sleep during the test.
Exercise stress test	Electrodes are placed on the chest, arms, and legs to record the heart's activity. A blood pressure cuff is placed around the arm and is inflated every few minutes. Heart rate and blood pressure are taken before exercise starts. The patient walks on a treadmill or pedals a stationary bicycle. The pace of the treadmill is increased. The response of the heart is monitored. The test continues until target heart rate is reached. Monitoring continues after exercise for 10 to 15 minutes or until the heart rate returns to normal.
Fecal occult blood test (FOBT)	Detects hidden blood in a bowel movement. There are two types: the smear test and flushable reagent pads.

Common Screening and Diagnostic Tests Explained

Test name	Definition
Laparoscopy (lap-uh-ROSS-kuh-pee)	A small tube with a camera is inserted into the abdomen through a small cut in or just below the belly button to see inside the abdomen and pelvis. Other instruments can be inserted in the small cut as well. It is used for both diagnosing and treating problems inside the abdomen.
Magnetic resonance imaging (MRI)	A test that uses powerful magnets and radio waves to create a picture of the inside of your body without surgery. The patient lies on a table that slides into a large tunnel-like tube, which is surrounded by a scanner. Small coils may be placed around your head, arm, leg, or other areas.
Mammogram	X-rays of the breast taken by resting one breast at a time on a flat surface that contains an x-ray plate. A device presses firmly against the breast. An x-ray is taken to show a picture of the breast. Mammography is used to screen healthy women for signs of breast cancer. It can also be used to evaluate a woman who has symptoms of disease. It can, in some cases, detect breast cancers before you can feel them with your fingers.
Medical history	The doctor or nurse talks to the patient about current and past illnesses, surgeries, pregnancies, medications, allergies, use of alternative therapies, vitamins and supplements, diet, alcohol and drug use, physical activity, and family history of diseases.
Pap test	The nurse or doctor uses a small brush to take cells from the cervix (opening of the uterus) to look at under a microscope in a lab.
Pelvic exam	A doctor or nurse asks about the patient's health and looks at the vaginal area. The doctor or nurse checks the fallopian tubes, ovaries, and uterus by putting two gloved fingers inside the vagina. With the other hand, the doctor or nurse will feel from the outside for any lumps or tenderness.
Physical exam	The doctor or nurse will test for diseases, assess your risk of future medical problems, encourage a healthy lifestyle, and update your vaccinations.
Positron emission tomography (POZ-ih-tron ih-MISH-uhn tuh-MOG-ruh-fee) (PET) scan	The patient is injected with a radioactive substance, such as glucose. A scanner detects any cancerous areas in the body. Cancerous tissue absorbs more of the substance and looks brighter in images than normal tissue.
Sigmoidoscopy (SIG-moi-DOSS-kuh-pee)	The sigmoidoscope is a small camera attached to a flexible tube. This tube, about 20 inches long, is gently inserted into the colon. As the tube is slowly removed, the lining of the bowel is examined.
Spirometry (spuh-ROM-uh-tree)	The patient breathes into a mouthpiece that is connected to an instrument called a spirometer. The spirometer records the amount and the rate of air that is breathed in and out over a specified time. It measures how well the lungs exhale.
Ultrasound	A clear gel is put onto the skin over the area being examined. An instrument is then moved over that area. The machine sends out sound waves, which reflect off the body. A computer receives these waves and uses them to create pictures of the body.

Note: Anesthesia (medicine to block pain or sedate you) is given during some of these tests to keep you comfortable. Be sure to talk with your doctor or nurse about what to expect during and after tests, and how to prepare for tests.

General Screenings and Immunizations for Women

These charts are guidelines only. Your doctor will personalize the timing of each test and immunization to meet your health care needs.

Screening tests	Ages 18–39	Ages 40–49	Ages 50–64	Ages 65 and older
General health: Full checkup, including weight and height	Discuss with your doctor or nurse.	Discuss with your doctor or nurse.	Discuss with your doctor or nurse.	Discuss with your doctor or nurse.
Thyroid test (TSH)	Start at age 35, then every 5 years	Every 5 years	Every 5 years	Every 5 years
Heart health: Blood pressure test	At least every 2 years	At least every 2 years	At least every 2 years	At least every 2 years
Cholesterol test	Start at age 20, discuss with your doctor or nurse.	Discuss with your doctor or nurse.	Discuss with your doctor or nurse.	Discuss with your doctor or nurse.
Bone health: Bone mineral density test		Discuss with your doctor or nurse.	Discuss with your doctor or nurse.	Get a bone mineral density test at least once. Talk to your doctor or nurse about repeat testing.
Diabetes: Blood glucose test	Discuss with your doctor or nurse.	Start at age 45, then every 3 years	Every 3 years	Every 3 years
Breast health: Mammogram (x-ray of breast)		Every 1–2 years. Discuss with your doctor or nurse.	Every 1–2 years. Discuss with your doctor or nurse.	Every 1–2 years. Discuss with your doctor or nurse.
Reproductive health: Pap test and pelvic exam	Every 1–3 years if you have been sexually active or are older than 21	Every 1–3 years	Every 1–3 years	Discuss with your doctor or nurse.
Chlamydia test	Yearly until age 25 if sexually active. Older than age 25, get this test if you have new or multiple partners.	Get this test if you have new or multiple partners.	Get this test if you have new or multiple partners.	Get this test if you have new or multiple partners.
Sexually transmitted infection (STI) tests	Both partners should get tested for STIs, including HIV, before initiating sexual intercourse.	Both partners should get tested for STIs, including HIV, before initiating sexual intercourse.	Both partners should get tested for STIs, including HIV, before initiating sexual intercourse.	Both partners should get tested for STIs, including HIV, before initiating sexual intercourse.
Mental health screening	Discuss with your doctor or nurse.	Discuss with your doctor or nurse.	Discuss with your doctor or nurse.	Discuss with your doctor or nurse.
Colorectal health: Fecal occult blood test			Yearly	Yearly
Flexible sigmoidoscopy (with fecal occult blood test is preferred)			Every 5 years (if not having a colonoscopy)	Every 5 years (if not having a colonoscopy)

This chart lists recommended screenings and immunizations for women at average risk for most diseases. Citations for these recommendations can be found online at www.womenshealth.gov/screeningcharts/general/citations.cfm.

General Screenings and Immunizations for Women

These charts are guidelines only. Your doctor will personalize the timing of each test and immunization to meet your health care needs.

Screening tests	Ages 18–39	Ages 40–49	Ages 50–64	Ages 65 and older
Colorectal health (continued): Double contrast barium enema (DCBE)			Every 5–10 years (if not having a colonoscopy or sigmoidoscopy)	Every 5–10 years (if not having a colonoscopy or sigmoidoscopy)
Colonoscopy			Every 10 years	Every 10 years
Rectal exam	Discuss with your doctor or nurse.	Discuss with your doctor or nurse.	Every 5–10 years with each screening (sigmoidoscopy, colonoscopy, or DCBE)	Every 5–10 years with each screening (sigmoidoscopy, colonoscopy, or DCBE)
Eye and ear health: Complete eye exam	At least once between the ages 20 and 29 and at least twice between the ages 30 and 39, or any time you have a problem with your eye(s)	Every 2–4 years	Every 2–4 years	Every 1–2 years
Hearing test	Starting at age 18, then every 10 years	Every 10 years	Every 3 years	Every 3 years
Skin health: Mole exam	Monthly mole self-exam; by a doctor every 3 years, starting at age 20	Monthly mole self-exam; by a doctor every year	Monthly mole self-exam; by a doctor every year	Monthly mole self-exam; by a doctor every year
Oral health: Dental exam	One to two times every year	One to two times every year	One to two times every year	One to two times every year
Immunizations: Influenza vaccine	Discuss with your doctor or nurse.	Discuss with your doctor or nurse.	Yearly	Yearly
Pneumococcal vaccine				One time only
Tetanus-diphtheria booster vaccine	Every 10 years	Every 10 years	Every 10 years	Every 10 years
Human papillomavirus (HPV) vaccine	Up to age 26, discuss with your doctor or nurse.			
Meningococcal vaccine	Discuss with your doctor or nurse if attending college.			
Herpes zoster vaccine (to prevent shingles)			Starting at age 60, one time only. Ask your doctor if it is okay to get it.	Starting at age 60, one time only. Ask your doctor if it is okay to get it.

This chart lists recommended screenings and immunizations for women at average risk for most diseases. Citations for these recommendations can be found online at www.womenshealth.gov/screeningcharts/general/citations.cfm.

Recommended Screenings, Tests, and Immunizations for Women With High Risk Factors in the Family

✔ if it applies	Does your family history include?	Then ask your doctor or nurse if you need the following screenings, tests, exams, or vaccines more often or at a younger age:
	High blood pressure	Blood pressure test
	High cholesterol	Cholesterol test
	Heart disease, premature heart disease, or heart attack	Blood pressure test, cholesterol test, exercise stress test
	Diabetes	Blood glucose test
	Breast cancer	Mammogram, ovarian cancer tests
	Endometrial cancer	Colon screening
	Ovarian cancer	Pelvic exam, ovarian cancer tests, colon screening, clinical breast exam
	Osteoporosis, bone fracture in adulthood	Bone mineral density test
	Thyroid disease or thyroid cancer	Thyroid test and/or genetic counseling
	Gum (periodontal) disease	Oral exam
	Hearing problems, deafness	Hearing test
	Vision problems, eye disease, blindness	Vision exam
	Inflammatory bowel disease; colon polyps; colon, ovarian, or endometrial cancer	Colonoscopy, sigmoidoscopy, double contrast barium enema, rectal exam, fecal occult blood test, Pap test, pelvic exam, ovarian cancer tests
	Cancer, heart disease, or any illness at an unusually young age (50 or younger)	Genetic counseling, possible early screening tests
	Two relatives with the same kind of cancer	Genetic counseling, possible early screening tests
	Birth defects or genetic disorder (you or your partner)	Genetic counseling, possible early screening tests. If you want to become pregnant, genetic counseling for you and your partner.

This chart lists screenings, tests, or exams you might need more often or earlier because of having high risk factors or things in your life that increase your chances of developing a condition or disease. Citations for these recommendations can be found online at www.womenshealth.gov/screeningcharts/highrisk/citations.cfm.

Recommended Screenings, Tests, and Immunizations for Women With High Individual Risk Factors

✔ if it applies	Are you?	Then ask your doctor or nurse if you need the following screenings, tests, exams, or vaccines more often or at a younger age:
	African American	Blood pressure test, cholesterol test, blood glucose test, vision exam, colonoscopy, genetic counseling for sickle cell anemia
	Latina	Blood pressure test, cholesterol test, blood glucose test, colonoscopy
	Alaska Native or Pacific Islander	Blood glucose test, pneumococcal vaccine
	American Indian	Blood glucose test, pneumococcal vaccine
	Ashkenazi Jewish descent	Genetic counseling for Tay-Sachs disease, if you want to become pregnant
	Ashkenazi Jewish descent with family history of breast or ovarian cancer	Genetic counseling for possible *BRCA1/2* mutation
	Asian American	Blood glucose test
	Age 65 or older	Bone mineral density test, flu vaccine, pneumococcal vaccine
	Between the ages of 60 and 64, weigh less than 154 lbs, and not taking estrogen	Bone mineral density test
	College age	MMR vaccine, varicella vaccine, human papillomavirus (HPV) vaccine, meningococcal vaccine
	Postmenopausal	Bone mineral density test
	Pregnant	Blood pressure test, blood glucose test, urine test, HIV test, STI tests, MMR vaccine, hepatitis B antigen test
	A nonpregnant woman of childbearing age	MMR vaccine, varicella vaccine
	A smoker	Blood pressure test, cholesterol test, bone mineral density test, oral exam, vision exam
	Overweight	Blood pressure test, blood glucose test, weight
	Living in prison	Tuberculosis (TB) test, HIV test, STI tests, hepatitis A, B vaccines
	Living in long-term care	TB test, influenza vaccine, pneumococcal vaccine
	A health care worker	TB test, influenza vaccine, pneumococcal vaccine, MMR vaccine, varicella vaccine, HIV test, hepatitis test, hepatitis B vaccine if exposed to blood

This chart lists screenings, tests, or exams you might need more often or earlier because of having high risk factors or things in your life that increase your chances of developing a condition or disease. Citations for these recommendations can be found online at www.womenshealth.gov/screeningcharts/highrisk/citations.cfm.

MMR: measles, mumps, and rubella
STI: sexually transmitted infections

Recommended Screenings, Tests, and Immunizations for Women With High Individual Risk Factors

✔ if it applies	Do you have or have you had?	Then ask your doctor or nurse if you need the following screenings, tests, exams, or vaccines more often or at a younger age:
	High blood pressure	Blood pressure test, cholesterol test, blood glucose test
	High cholesterol	Blood pressure test, cholesterol test, blood glocose test
	Heart disease	Blood pressure test, cholesterol test, blood glucose test, influenza vaccine, pneumococcal vaccine
	Diabetes	Blood pressure test, cholesterol test, blood glucose test, vision exam, urine test
	Gestational diabetes (diabetes during pregnancy)	Blood glucose test
	A baby weighing more than 9 lbs	Blood glucose test
	Breast cancer	Mammogram, ovarian cancer tests
	Dense breast	Digital mammogram, clinical breast exam
	Cervical, uterine, endometrial, vaginal cancer	Pap test, pelvic exam, ovarian cancer tests, colon screening
	Ovarian cancer	Pelvic exam, ovarian cancer tests, mammogram, colon screening
	Previous abnormal Pap tests	Pap test, pelvic exam, human papillomavirus (HPV) vaccine
	Early menopause (natural or surgically induced); absent or infrequent menstrual periods; advanced age; a personal history of bone fracture in adulthood; lifelong low calcium intake; lifelong inactive lifestyle or little physical activity; low body weight (less than 154 lbs), or a history of an eating disorder such as anorexia nervosa	Bone mineral density test
	An autoimmune disease (including lupus, rheumatoid arthritis, scleroderma, multiple sclerosis, psoriasis)	Thyroid test, TB test, influenza shot, MMR vaccine, pneumococcal vaccine, autoimmune screening test, bone mineral density test

This chart lists screenings, tests, or exams you might need more often or earlier because of having high risk factors or things in your life that increase your chances of developing a condition or disease. Citations for these recommendations can be found online at www.womenshealth.gov/screeningcharts/highrisk/citations.cfm.

Recommended Screenings, Tests, and Immunizations for Women With High Individual Risk Factors

✔ if it applies	Do you have or have you had?	Then ask your doctor or nurse if you need the following screenings, tests, exams, or vaccines more often or at a younger age:
	Chronic lung disease	Influenza vaccine, pneumococcal vaccine
	Chronic liver disease	Hepatitis A and B vaccines
	Thyroid disease	Thyroid test, influenza vaccine, pneumococcal vaccine, bone mineral density test (if hyperthyroid)
	Gum (periodontal) disease	Oral exam
	Colon polyps; inflammatory bowel disease	Colonoscopy
	Colon cancer	Endometrial cancer screening, colon cancer screening tests
	A developmental delay	Vision exam, hearing test
	Eye injury or disease	Vision exam
	Ear injury or prolonged exposure to loud noise	Hearing test
	HIV/AIDS	Oral exam, vision exam, Pap test, pelvic exam, TB test, thyroid test, STI tests, influenza vaccine, pneumococcal vaccine, hepatitis screening, hepatitis A and B vaccines
	A blood transfusion or solid organ transplant before 1992	Hepatitis C test
	Received clotting factor concentrates made before 1987	Hepatitis C test
	A blood transfusion before 1985	HIV test
	Multiple sex partners (or a partner who has or had multiple sex partners)	STI tests, HIV test, hepatitis B vaccine, Pap test, pelvic exam, human papillomavirus (HPV) vaccine
	Alcoholism	Pneumococcal vaccine, TB test, psychological screening, liver tests
	Injection drug use (IDU) or addiction	Hepatitis A and B vaccines, hepatitis C test, TB test, STI tests, HIV test, psychological screening
	A sexually transmitted infection (STI)	STI tests, HIV test, Pap test, pelvic exam, hepatitis B vaccine, HPV vaccine
	Lived or worked with someone exposed to tuberculosis (TB)	TB test
	A serious injury (cut or laceration)	Tetanus-diphtheria booster vaccine
	A baby recently (within the past few weeks or months)	Postpartum depression screening

This chart lists screenings, tests, or exams you might need more often or earlier because of having high risk factors or things in your life that increase your chances of developing a condition or disease. Citations for these recommendations can be found online at www.womenshealth.gov/screeningcharts/highrisk/citations.cfm.

Health Resources for Women and Families

Health Resources for Women

General health

womenshealth.gov
200 Independence Ave SW, Room 712E
Washington, DC 20201
Web site: www.womenshealth.gov
Illnesses and Disabilities:
www.womenshealth.gov/wwd
Phone number: (800) 994-9662,
(888) 220-5446 TDD

Agency for Healthcare Research and Quality Clearinghouse
PO Box 8547
Silver Spring, MD 20907
Web site: www.ahrq.gov/research/womenix.htm
Phone number: (800) 358-9295,
(888) 586-6340 TDD

ClinicalTrials.gov
ClinicalTrials.gov is a registry of clinical trials. The Web site gives you information about a trial's purpose, who may participate, locations, and phone numbers for more details.
Web site: www.clinicaltrials.gov

Health Resources and Services Administration Information Center
PO Box 2910
Merrifield, VA 22116
Web site: www.hrsa.gov/WomensHealth
Phone number: (888) 275-4772,
(877) 489-4772 TTY

Indian Health Service
801 Thompson Ave, Suite 400
Rockville, MD 20852-1627
Web site: www.ihs.gov/MedicalPrograms/MCH/W

MedlinePlus
MedlinePlus provides health information from the National Institutes of Health and other trusted sources. The Web site also has a medical encyclopedia, information on prescription and nonprescription drugs, and the latest health news.
Web site: www.medlineplus.gov

National Institutes of Health
9000 Rockville Pike
Bethesda, MD 20892
Web site: www.nih.gov

Office of Minority Health Resource Center
PO Box 37337
Washington, DC 20013-7337
Web site: www.omhrc.gov
Phone number: (800) 444-6472

Office of Research on Women's Health, NIH
6707 Democracy Blvd, Suite 400
Bethesda, MD 20892-5484
Web site: http://orwh.od.nih.gov
Phone number: (301) 402-1770

Office of Women's Health, CDC
1600 Clifton Rd, MS E-89
Atlanta, GA 30333
Web site: www.cdc.gov/women
Phone number: (800) 232-4636, (888) 232-6348 TTY

Office of Women's Health, FDA
5600 Fishers Ln
Rockville, MD 20857
Web site: www.fda.gov/womens
Phone number: (888) 463-6332

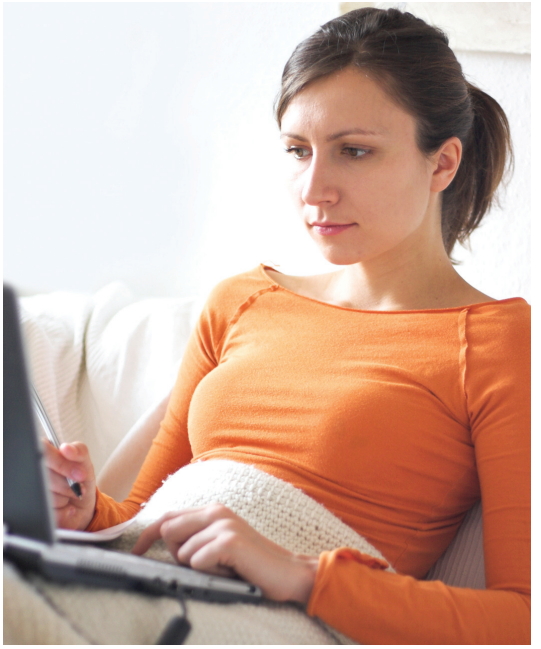
American Academy of Family Physicians
PO Box 11210
Shawnee Mission, KS 66207-1210
Web site: www.familydoctor.org

American College of Obstetricians and Gynecologists
409 12th St SW, PO Box 96920
Washington, DC 20090-6920
Web site: www.acog.org
Phone number: (202) 863-2518
Resource Center

American Medical Women's Association
100 N 20th St, 4th Floor
Philadelphia, PA 19103
Web site: www.amwa-doc.org

Black Women's Health Imperative
1420 K St NW, Suite 1000
Washington, DC 20005
Web site: www.blackwomenshealth.org

National Alliance for Hispanic Health
1501 16th St NW
Washington, DC 20036
Web site: www.hispanichealth.org



National Asian Women's Health Organization
1 Embarcadero Center, Suite 500
San Francisco, CA 94111
Web site: www.nawho.org

National Women's Health Network
514 10th St NW, Suite 400
Washington, DC 20004
Web site: www.nwhn.org
Phone number: (202) 628-7814

National Women's Health Resource Center
157 Broad St, Suite 106
Red Bank, NJ 07701
Web site: www.healthywomen.org
Phone number: (877) 986-9472

Society for Women's Health Research
1025 Connecticut Ave NW, Suite 701
Washington, DC 20036
Web site: www.womenshealthresearch.org

Disease Risk Calculators

Heart Attack/Coronary Heart Disease risk assessment tool
On this Web site, find out if you are at risk of having a heart attack or dying of coronary heart disease in the next 10 years. You can also check to see if you may have a group of risk factors that increase your chances of developing heart disease, stroke, and diabetes.

Web site: www.americanheart.org/presenter.jhtml?identifier=3003499

Your disease risk
This Web site allows you to find out your risk of developing cancer, diabetes, heart disease, osteoporosis, and stroke. You can also get personalized tips for preventing these diseases.

Web site: www.yourdiseaserisk.wustl.edu

Assess your risk of periodontal disease
Find out on this Web site if you are at risk of developing periodontal, or gum, diseases.

Web site: www.perio.org/consumer/4a.html

Health Resources for Men

General health

Men's Health, womenshealth.gov
200 Independence Ave SW, Room 712E
Washington, DC 20201
Web site: www.womenshealth.gov/mens
Phone number: (800) 994-9662,
(888) 220-5446 TDD

U.S. Department of Health and Human Services
200 Independence Ave SW
Washington, DC 20201
Web site: www.hhs.gov/specificpopulations

Divisions of HIV/AIDS Prevention, CDC
1600 Clifton Rd NE
Atlanta, GA 30333
Web site: www.cdc.gov/hiv
Phone number: (800) 232-4636,
(888) 232-6348 TTY

Healthfinder®
PO Box 1133
Washington, DC 20013-1133
Web site: www.healthfinder.gov/justforyou

MedlinePlus
8600 Rockville Pike
Bethesda, MD 20894
Web site: www.nlm.nih.gov/medlineplus/men.html

Men's Health, CDC
1600 Clifton Rd NE
Atlanta, GA 30333
Web site: www.cdc.gov/men
Phone number: (800) 232-4636,
(888) 232-6348 TTY

Men's Health Program, AHRQ
PO Box 8547
Silver Spring, MD 2090
Web site: www.ahrq.gov/path/menpath.htm
Phone number: (800) 358-9295,
(888) 586-6340 TDD

Promoting Responsible Fatherhood, HHS
200 Independence Ave SW
Washington, DC 20201
Web site: www.fatherhood.hhs.gov

Men's Health Network
PO Box 75972
Washington, DC 20013
Web site: www.menshealthnetwork.org

Heart health

National Heart, Lung, and Blood Institute Information Center, NIH
PO Box 30105
Bethesda, MD 20824-0105
Web site: www.nhlbi.nih.gov
Phone number: (301) 592-8573,
(240) 629-3255 TTY

American Heart Association
7272 Greenville Ave
Dallas, TX 75231
Web site: www.americanheart.org
Phone number: (800) 242-8721

Cancer

National Cancer Institute, NIH
6116 Executive Blvd, Room 3036A
Bethesda, MD 20892-8322
Web site: www.cancer.gov
Phone number: (800) 422-6237,
(800) 332-8615 TTY

American Cancer Society
250 Williams St
Atlanta, GA 30303
Web site: www.cancer.org
Phone number: (800) 227-2345,
(866) 228-4327 TTY

Mental health

National Clearinghouse for Alcohol and Drug Information, SAMHSA
1 Choke Cherry Rd
Rockville, MD 20857
Web site: www.ncadi.samhsa.gov
Phone number: (800) 729-6686,
(800) 487-4889 TDD

National Institute of Mental Health, NIH
6001 Executive Blvd, Room 8184,
MSC 9663
Bethesda, MD 20892-9663
Web site: www.nimh.nih.gov
Phone number: (866) 615-6464,
(866) 415-8051 TTY

National Mental Health Information Center, SAMHSA
PO Box 42557
Washington, DC 20015
Web site: http://mentalhealth.samhsa.gov
Phone number: (800) 789-2647,
(866) 889-2647 TDD

Urologic and reproductive health

National Kidney and Urologic Diseases Information Clearinghouse, NIH
3 Information Way
Bethesda, MD 20892-3580
Web site: www.kidney.niddk.nih.gov
Phone number: (800) 891-5390

Health Resources for Children

General health

girlshealth.gov
200 Independence Ave SW, Room 712E
Washington, DC 20201
Web site: www.girlshealth.gov
Phone number: (800) 994-9662,
(888) 220-5446 TDD

Building Blocks for a Healthy Future, SAMHSA
1 Choke Cherry Rd
Rockville, MD 20857
Web site: www.bblocks.samhsa.gov
Phone number: (800) 694–4747 ext.4820

Child and Adolescent Health, AHRQ
PO Box 8547
Silver Spring, MD 20907
Web site: www.ahrq.gov/child
Phone number: (800) 358-9295,
(888) 586-6340 TDD

U.S. Department of Health and Human Services
200 Independence Ave SW
Washington, DC 20201
Web site: www.hhs.gov/specificpopulations

Family Guide to Keeping Youth Mentally Healthy and Drug Free, SAMHSA
1 Choke Cherry Rd
Rockville, MD 20857
Web site: www.family.samhsa.gov

Food and Drug Administration Kid's Page
5600 Fishers Ln
Rockville, MD 20857
Web site: www.fda.gov/oc/opacom/kids/default.htm
Phone number: (888) 463-6332

Girl Power! Campaign
Web site: www.girlpower.gov
Phone number: (800) 729-6686

MedlinePlus
8600 Rockville Pike
Bethesda, MD 20894
Web site: www.nlm.nih.gov/medlineplus/childrenandteenagers.html

My Bright Future: Physical Activity and Healthy Eating for Young Women, HRSA
PO Box 2910
Merrifield, VA 22116
Web site: www.hrsa.gov/womenshealth/mybrightfuture/menu.html
Phone number: (888) 275-4772,
(877) 489-4772 TTY

Safe and Healthy Kids, CDC
1600 Clifton Rd, MS E-89
Atlanta, GA 30333
Web site: www.cdc.gov/women/kids
Phone number: (800) 232-4636,
(888) 232-6348 TTY

VERB™ It's What You Do, CDC
1600 Clifton Rd
Atlanta, GA 30333
Web site: www.verbnow.com
Phone number: (800) 232-4636,
(888) 232-6348 TTY

WISE EARS!®, NIH
1 Communication Ave
Bethesda, MD 20892-3456
Web site: www.nidcd.nih.gov/health/wise
Phone number: (800) 241-1044,
(800) 241-1055 TTY

American Academy of Pediatrics
141 Northwest Point Blvd
Elk Grove Village, IL 60007
Web site: www.aap.org

Kidshealth.org
Web site: www.kidshealth.org

Child abuse

Prevent Child Abuse America
500 N Michigan Ave, Suite 200
Chicago, IL 60611
Web site: www.preventchildabuse.org
Phone number: (800) 244-5373

Cancer

National Cancer Institute, NIH
6116 Executive Blvd, Room 3036A
Bethesda, MD 20892-8322
Web site: www.cancer.gov
Phone number: (800) 422-6237,
(800) 332-8615 TTY

Childhood asthma

American Lung Association
61 Broadway, 6th Floor
New York, NY 10006
Web site: www.lungusa.org
Phone number: (800) 548-8252

Childhood diabetes

National Diabetes Information Clearinghouse, NIH
1 Information Way
Bethesda, MD 20892-3560
Web site: www.diabetes.niddk.nih.gov
Phone number: (800) 860-8747

American Diabetes Association
1701 N Beauregard St
Alexandria, VA 22311
Web site: www.diabetes.org
Phone number: (800) 342-2383

Immunizations

National Center for Immunization and Respiratory Diseases, CDC
1600 Clifton Rd NE, MS E-05
Atlanta, GA 30333
Web site: www.cdc.gov/vaccines
Phone number: (800) 232-4636,
(888) 232-6348 TTY

Childhood Immunization Support Program, AAP
141 Northwest Point Blvd
Elk Grove Village, IL 60007
Web site: www.cispimmunize.org

Immunization Action Coalition
1573 Selby Ave, Suite 234
St Paul, MN 55104
Web site: www.immunize.org

Child nutrition

Powerful Bones. Powerful Girls.
200 Independence Ave SW, Room 712E
Washington, DC 20201
Web site: www.girlshealth.gov/bones
Phone number: (800) 994-9662,
(888) 220-5446 TDD

School Meals, USDA
3101 Park Center Dr
Alexandria, VA 22302
Web site: www.fns.usda.gov/cnd

Safety and injury prevention

U.S. Consumer Product Safety Commission
4330 East West Highway
Bethesda, MD 20814
Web site: www.cpsc.gov
Phone number: (800) 638-2772, (800) 638-8270 TTY

National Center for Injury Prevention and Control, CDC
4770 Buford Highway NE, MS K-63
Atlanta, GA 30341-3717
Web site: www.cdc.gov/ncipc
Phone number: (800) 232-4636,
(888) 232-6348 TTY

National Highway Traffic Safety Administration
1200 New Jersey Ave SE, West Building
Washington, DC 20590
Web site: www.nhtsa.gov
Phone number: (888) 327-4236,
(800) 424-9153 TTY

Take A Stand. Lend A Hand. Stop Bullying Now!, HRSA
PO Box 2910
Merrifield, VA 22116
Web site: www.stopbullyingnow.hrsa.gov
Phone number: (888) 275-4772,
(877) 489-4772 TTY

Safe Kids Worldwide
1301 Pennsylvania Ave NW, Suite 1000
Washington DC 20004
Web site: www.safekids.org

Resources for Health Insurance

Each year, more American families find themselves without health insurance. In 2004, more than 45 million Americans didn't have health insurance. Sixteen million of them were women. These programs and resources may be able to help you and your family.

Government resources that can help

The Centers for Medicare and Medicaid Services (CMS), a federal government agency, administers health insurance programs such as Medicare, Medicaid, and the State Children's Health Insurance Program.

Medicare

Medicare is a health insurance program funded by the U.S. government. To qualify for these benefits, you must be 65 years old or older, or younger than 65 with certain disabilities, or a person of any age who has end-stage renal disease. (A person who has end-stage renal disease has permanent kidney failure that requires dialysis or a kidney transplant.)

Medicare has several parts. Your coverage depends on which parts of Medicare you have. Medicare Part A typically pays for your inpatient hospital expenses. Medicare Part B typically pays for your outpatient health care expenses, including doctor fees. You usually have to pay a monthly premium to be covered by Medicare Part B.

Beginning January 1, 2006, everyone who has Medicare is now eligible for prescription drug coverage through the new Medicare Part D. This coverage is available regardless of your income and resources, your health status, or how much your prescriptions cost. It covers both brand-name and generic prescription drugs at participating pharmacies in your area. Medicare prescription drug coverage provides protection for people who have very high drug costs.

For general information, 24 hours a day, 7 days a week,

- Call toll free at (800) MEDICARE (800-633-4227) or TTY (877) 486-2048.
- Web site: www.cms.hhs.gov/home/medicare.asp
- Web site: The Official U.S. Government Site for People with Medicare: www.medicare.gov

If you have a limited income and resources, you may be eligible for extra help with your prescription drug costs. Almost 1 in 3 people with Medicare

qualify for having almost all of their prescription drug costs paid for by the program. To find out if you are eligible for extra help, contact the Social Security Administration.

- Call the U.S. Social Security Administration toll free at (800) 772-1213 (TTY 800-325-0778).
- Web site: www.socialsecurity.gov

Medicaid

Medicaid is a health insurance program jointly funded by states, counties, and the U.S. government. Medicaid provides medical benefits to groups of low-income people that meet certain age, income, and resource requirements. People who have certain medical conditions such as blindness or who are pregnant may also qualify. Whether a person is eligible for Medicaid depends on the state where he or she lives.

In general, you should apply for Medicaid if your income is low and you or someone in your family needs health care. A qualified caseworker in your state can give you guidance about your situation. Your child may be eligible for coverage, even if you are not.

To find out more about Medicaid in your state,

- Call the toll free number for your state. A list of toll free numbers is on the CMS Web site at www.cms.hhs.gov/medicaid/consumer.asp.

State Children's Health Insurance Program (SCHIP)

Like Medicaid, the State Children's Health Insurance Program (SCHIP) is a partnership between the federal government and the states. SCHIP is designed to provide health insurance coverage to specific groups of low-income children. Families who earn too much money to be eligible for Medicaid but not enough money to purchase private health insurance may be eligible to get health insurance for their children.

Each state determines how its program is designed, who is eligible, what the benefits are, how costs are shared, and other features. For little or no cost, this insurance pays for children's doctor visits, immunizations, hospitalizations, and emergency room visits.

For more information about SCHIP, go to www.cms.hhs.gov/home/schip.asp.

To learn whom you should contact in your state or to read specific information about eligibility in your state, go to Insure Kids Now at www.insurekidsnow.gov.

Other government programs and benefits

To learn about the government benefits you may be entitled to,

- Call toll free (800) FED-INFO (800-333-4636). Calls are answered Monday through Friday, 8 AM to 8 PM, Eastern Standard Time.
- Web site: www.govbenefits.gov

Other public government and private resources that can help

For women who make too much money to qualify for these federal and state programs but who can't afford to pay for health insurance or costly health services, the choices are limited and difficult. Public and private resources may be able to help.

- **"Safety-net" facilities.** Community health centers, public hospitals, school-based centers, public housing primary care, and special-need facilities. Contact your local or state health department for more information or go to ask.hrsa.gov/pc.
- **Free clinics.** Free clinics provide health care services for the uninsured.
- **Prescription drug assistance.** Some states provide prescription drug assistance to women who cannot get Medicaid. Many drug companies will work with your doctor to provide free medicines to those in need. A list of resources can be found at www.disabilityresources.org/RX.html.
- **Women with cancer.** Women with cancer can find help through a variety of government-sponsored and volunteer organizations. For accurate, up-to-date information on cancer and resources for people dealing with cancer, go to the Web site of the National Cancer Institute (www.cancer.gov). You can also visit the Cancer Information Service of the National Cancer Institute on the Internet (http://cis.nci.nih.gov). To get answers to specific questions about cancer, call (800) 4-CANCER (800-422-6237), Monday through Friday, 9:00 AM to 4:30 PM to speak with a cancer information specialist. Deaf and hard-of-hearing callers with TTY equipment can call (800) 332-8615.
- **Women with HIV.** The federal Ryan White CARE Act funds health care services for women with HIV/AIDS who do not have health insurance or the financial resources to pay for care. To locate a CARE provider, contact

your local or state health department or call (800) 994-9662.

- **Group health insurance.** Some states and localities, labor unions, professional clubs, associations, and organizations offer low-cost group health insurance to their members. These plans usually cost less than individual insurance and can be worth considering.
- **Temporary insurance.** Some individuals who have been denied health insurance because of a medical condition may be able to obtain coverage through their state's "risk pools." More than 30 states provide this temporary insurance assistance. For more information, go to the Web site of the Health Insurance Resource Center at www.healthinsurance.org/risk_pools.

Protect your health insurance coverage

If you have health insurance, you should know how to protect that insurance coverage. If you are losing your health insurance because you have lost your job, have reduced hours at work, have gotten a divorce, or have had your spouse die, you have certain rights and protections. These rights are described in the Health Insurance Portability and Accountability Act of 1996, or HIPAA.

Tips: What to do

- Obtain proof that you had previous health insurance coverage from your employer.
- Apply for COBRA, which stands for the Consolidated Omnibus Budget Reconciliation Act of 1985. COBRA requires most employers that have 20 or more employees to allow you to continue your health insurance for 18 months, but you must pay the full premium cost of the insurance. Ask your employer's human resources office about when and how you should apply for these benefits.
- Consider your health insurance situation carefully before agreeing to certain terms and conditions. It is especially important to think about your health care needs when you are separated from your spouse, divorced, or are a retiree with annuities.
- In a legal separation or divorce proceeding, you can get a court order to provide your children with health insurance under the health plan of the noncustodial parent. This act is called a qualified medical child support order.
- Act quickly to get the right information to protect you and your family. File any required forms promptly. Strict time limits often apply.

For more information about HIPAA,

- Call (866) 627-7748
- Web site: www.cms.hhs.gov/HIPAAGenInfo

For more information on health insurance choices, go to the Web site of the Agency for Healthcare Research and Quality at www.ahrq.gov/consumer. ■