

Personal Care and Consumer Choices

Chapter Preview

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▲ Working with the Photo

Learning how to evaluate consumer products will help you become a smart shopper. **What kinds of things do you consider when choosing a health care product?**

Start-Up Activities

Before You Read

Do you have good personal hygiene? Do you make good consumer choices every time you go to the store? Take the short health inventory below. Keep a record of your answers.

HEALTH INVENTORY

- I wear sunscreen and protective clothing if I go outside between 10:00 A.M. and 4:00 P.M.
(a) always (b) sometimes (c) never
- I always listen to music softer than 80 decibels.
(a) always (b) sometimes (c) never
- I consider the source of all health claims made in advertisements.
(a) always (b) sometimes (c) never
- I read labels carefully before taking any medicine.
(a) always (b) sometimes (c) never

FOLDABLES® Study Organizer

As You Read

Make this Foldable® to help you organize what you learn about personal care. Begin with a plain sheet of $8\frac{1}{2}'' \times 11''$ paper.

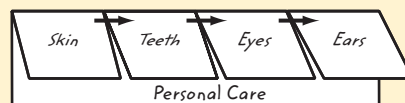
- 1 Fold the sheet of paper along the long axis, leaving a 2'' tab along the side.



- 2 Fold in half, then fold again into fourths.



- 3 Unfold and cut along the three fold lines on the front flap. Label as shown.



Under the appropriate tab, write down what you learn about caring for your skin, teeth, eyes, and ears.

Go Online

Visit glencoe.com and complete the Health Inventory for Chapter 15.

Lesson 1

Personal Health Care

Guide to Reading

Building Vocabulary

As you read this lesson, write each new highlighted term and its definition in your notebook.

- epidermis (p. 373)
- dermis (p. 373)
- dandruff (p. 374)
- plaque (p. 375)
- tartar (p. 375)
- decibel (p. 377)

Focusing on the Main Ideas

In this lesson, you will learn to

- **identify** common skin and hair problems.
- **explain** functions of the mouth and teeth.
- **describe** how to protect your eyes and ears.

Reading Strategy

Classifying Make a chart with four columns, one each for skin, mouth, eyes, and ears. Identify ways of caring for each of these.

FOLDABLES® Study Organizer Use the Foldable® on p. 371 as you read this lesson.



Quick Write

Write a short description of your daily hygiene routines.

Functions of Skin

The skin is your body's largest organ. Like other organs of the body, it has several important functions. It is a watertight barrier when you swim or take a shower. It also helps control your body temperature. It releases perspiration when you are hot and tells your brain to slow blood circulation when you are cold.

The skin also allows you to feel textures, such as rough and smooth, and alerts you when something is hot, cold, or painful. Your skin also protects you from germs.

- ▶ Your skin enables you to experience the sense of touch: the roughness of tree bark, the smooth, silky feel of satin, or the softness of a rabbit. **What are some other functions of the skin?**



Parts of the Skin

The skin is composed of three main layers. The *outermost layer of the skin* is the **epidermis** (e-puh-DER-mis). The *thick inner layer of skin* underneath it is the **dermis**. This is where nerve endings, blood vessels, and oil and sweat glands are found. The innermost layer of skin, the *subcutaneous* (sub-kyoo-TAY-nee-uhs) *layer*, connects your skin to muscle and bone.



Reading Check

List Name the three main layers of the skin.

Skin Problems

Oil glands help the skin stay soft. During the teen years, too much oil can cause clogged pores, which leads to acne. Acne sores include whiteheads, blackheads, and pimples.

Minor acne can be treated with over-the-counter products and good hygiene. More serious cases may require visits to a dermatologist (DER-muh-TAHL-uh-jist), a physician who specializes in skin problems.

Other skin problems are caused by sun exposure. Exposure to the sun's ultraviolet (UV) rays increases the risk of developing skin cancer. Sun exposure also damages the skin, causing wrinkles and premature aging.

Viruses can also affect the skin. Cold sores and warts are both caused by viruses. Both can be treated but are contagious. Contagious means the virus can be spread to others. Anyone with a wart or cold sore should avoid skin contact with others, and should wash his or her hands often.

Skin Care

Having clean, healthy skin is part of your overall appearance. During the teen years, you may notice an odor in areas where you sweat heavily. The odor is caused by bacteria. Bathing or showering regularly and using antiperspirants and deodorants can eliminate body odor.

If you have acne, gently wash the affected area with mild soap and warm water. Repeat this twice a day. Never scrub the skin. This can cause even more acne by opening pimples and spreading the bacteria all over your face.



▲ It is healthy to be involved in outdoor activities, but measures must be taken to protect yourself from the sun's harmful rays. **What are some of these protective measures?**



MediaWatch

Deodorants

Have you ever seen a deodorant ad that claimed “superior protection” or “extra-long-lasting formulas?” As a health consumer, you need to learn to cut through the media “hype.” In Lesson 2, you’ll learn how to read product ingredient labels. This will help you compare products to see whether there is really a difference.

Do you use a deodorant or an antiperspirant? Have you seen ads for the product? What claims did the ads make about the product?



Wear sunscreen and protective clothing when you’re in the sun between 10:00 A.M. and 4:00 P.M. Make sure you use a sunscreen with at least an SPF (sun protection factor) 15 and UVA/UVB protection. UVA and UVB are harmful sun rays that can damage your skin. Avoid body piercings and tattoos. Even under sterile conditions, the skin is exposed to germs.



Reading Check

Describe Why should you avoid fads like body piercings and tattoos?



Your Hair and Nails

Your hair and nails are composed of a tough substance called keratin. Both grow out of living tissue located in the dermis. Each nail is surrounded by a fold of epidermis called a *cuticle* (KYOO·ti·kuhl).

Hair and Nail Problems

The same oil glands that cause acne can also affect hair, making it look and feel greasy. Another common hair problem is **dandruff**, *a flaking of the outer layer of dead skin cells*. Try using shampoos made for oily hair or flaking scalp.

Head lice is another common hair problem. Lice are tiny insects that live in hair and spread easily. To prevent the spread of lice, avoid sharing combs, brushes, and hats. If you get lice, you can treat it with a medicated shampoo. You will also need to wash all bedding, towels, combs, brushes, and clothing. Your family will need to do the same.

Your nails can have problems as well. A hangnail is a split in the cuticle near the fingernail’s edge. You can treat hangnails by carefully trimming the skin. The cuticle should heal in a few days. An ingrown toenail occurs when the toenail pushes too far into the skin along the side of the toe. This can result from trimming the nail on a curve rather than straight across or wearing shoes that are too tight. See a doctor if your toe becomes inflamed and sore as it may be infected.



Reading Check

Identify What substance makes up your hair and nails?

- ◀ Brushing or combing your hair regularly can keep it looking healthy. **What are some other things you can do to take care of your hair?**



Your Teeth

Like your skin, your teeth are vital to your appearance and health. They chew and grind food, making it easier to digest. They are also necessary for proper speech.

Tooth and Gum Problems

Taking care of your teeth and gums can prevent tooth decay.

Figure 15.1 shows the stages of tooth decay.

The gums serve as anchors for your teeth. Like the teeth, they can also develop problems. One problem is gingivitis (jin·juh·VY·tis). This is a condition in which the gums become inflamed and bleed easily. If left untreated, gingivitis can cause tooth loss.

Tooth and Gum Care

Caring for the teeth and gums is essential. Make it a habit to floss and gently brush the teeth and gums for at least two to three minutes, twice a day. Brushing and flossing clean the teeth and **remove** plaque.

Academic Vocabulary

remove (rih MOOV) (verb)
to take off; to take away.
Guests are required to remove their shoes before they enter some Asian households.

▼ **FIGURE 15.1**

THE PROCESS OF TOOTH DECAY

When teeth are not cared for properly, tooth decay results. **What regular habits can help you prevent tooth decay?**

Stage 1

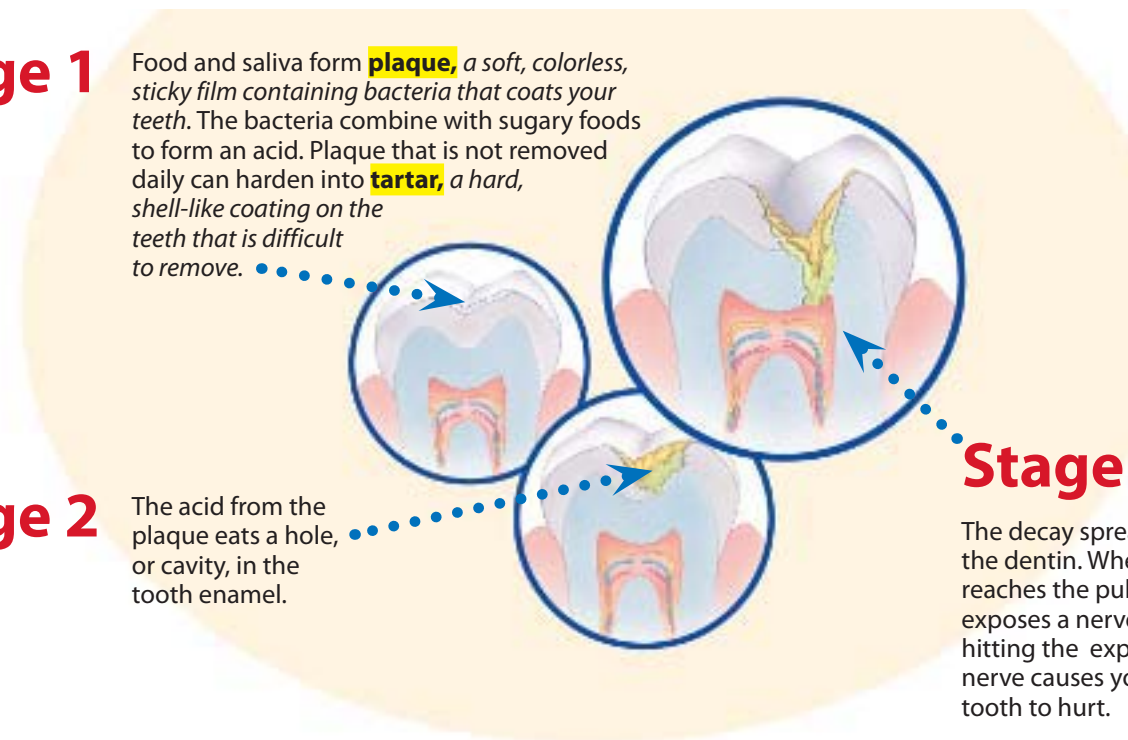
Food and saliva form **plaque**, a soft, colorless, sticky film containing bacteria that coats your teeth. The bacteria combine with sugary foods to form an acid. Plaque that is not removed daily can harden into **tartar**, a hard, shell-like coating on the teeth that is difficult to remove.

Stage 2

The acid from the plaque eats a hole, or cavity, in the tooth enamel.

Stage 3

The decay spreads to the dentin. When it reaches the pulp, it exposes a nerve. Air hitting the exposed nerve causes your tooth to hurt.





▲ Your smile is an important part of your appearance. **What steps can you take to keep your smile bright and your teeth healthy?**

Good eating habits also help keep your teeth healthy. Dairy products and other foods high in calcium will help keep teeth strong. You should also limit the number of sugary foods you eat.

You should see a dentist twice a year. The dentist or a dental hygienist will clean and remove hard-to-reach plaque and tartar. The dentist can also treat any cavities and gum problems. If your teeth are growing in crooked, your dentist may recommend that you see an orthodontist. An orthodontist may put braces on your teeth to straighten them.



Reading Check

Describe Tell how tooth decay occurs.



Your Eyes

Your eyes are your organ of sight. The main parts of the eye are shown in **Figure 15.2**.

Vision Problems

There are several common vision problems. Nearsightedness is when a person can see nearby objects clearly, but distant objects are blurred. With farsightedness, faraway objects are clear, but nearby objects are blur. With astigmatism (ah-STIG-muh-tizm), images appear blurred or distorted due to an irregularly shaped lens or cornea. Most vision problems can be corrected by using eyeglasses, contact lenses, or laser correction surgery.

Eye Care and Protection

It is important to protect your eyes from injury, dust, and overexposure to sunlight. Wear sunglasses that have lenses with UV protection. Wear protective goggles when doing any activity that could injure your eyes. Watch television or use a computer in a well-lit room. Avoid rubbing your eyes. This can irritate them and spread bacteria. If you wear contact lenses, always wash your hands before putting in or taking out your lenses. Change your lenses regularly according to your eye doctor's instructions.

Regular vision screenings and eye exams are also important. See an eye doctor for an exam every two years if you don't wear corrective lenses, yearly if you do.



Reading Check

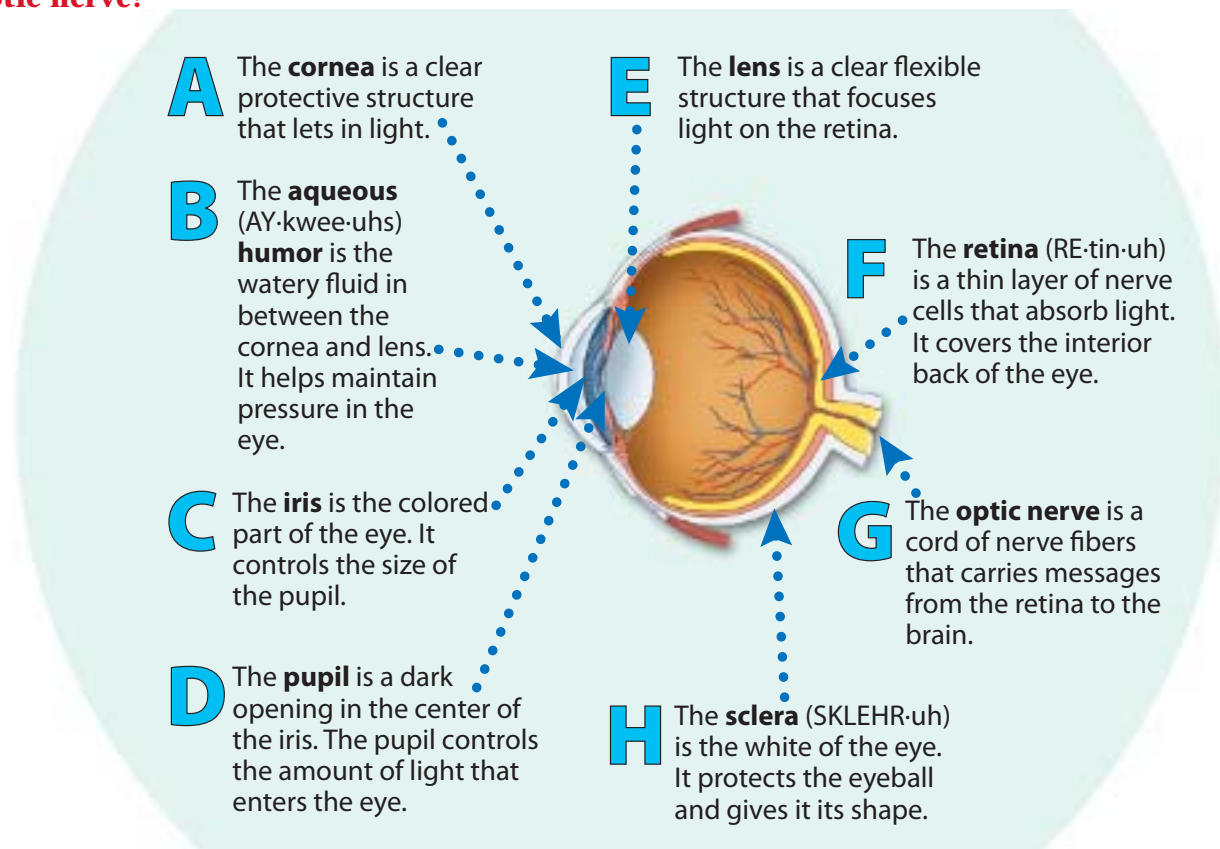
Explain What is an astigmatism?



▼ FIGURE 15.2

PARTS OF THE EYE

Each part of the eye has a specific function. **What is the function of the optic nerve?**



Your Ears

Your ears interpret sound. Your ears also enable you to control your balance. Fluid and tiny hair cells inside your ears send messages to your brain when you move or shift positions. The brain interprets the messages and tells your body what adjustments it needs to make. **Figure 15.3** on the next page shows the different parts of the ear.

Hearing Problems

The most common ear problem is hearing loss, caused by middle ear infections and punctured eardrums. Loud noises can also cause hearing loss. Any noise above 80 decibels can be harmful. A **decibel** is a measure of the loudness of sound.

Prolonged exposure to loud noise can also lead to *tinnitus* (TIN-uh-tuhs). This is a constant ringing in the ears.

Ear Care and Protection

To protect your ears, never insert anything into the ear. Avoid loud noises. Cover the ears in cold weather to avoid frostbite. Wear earplugs to reduce noise or keep water out. See a doctor for an earache or to treat ringing in the ears.



Visit glencoe.com and complete the Interactive Study Guide for Lesson 1.

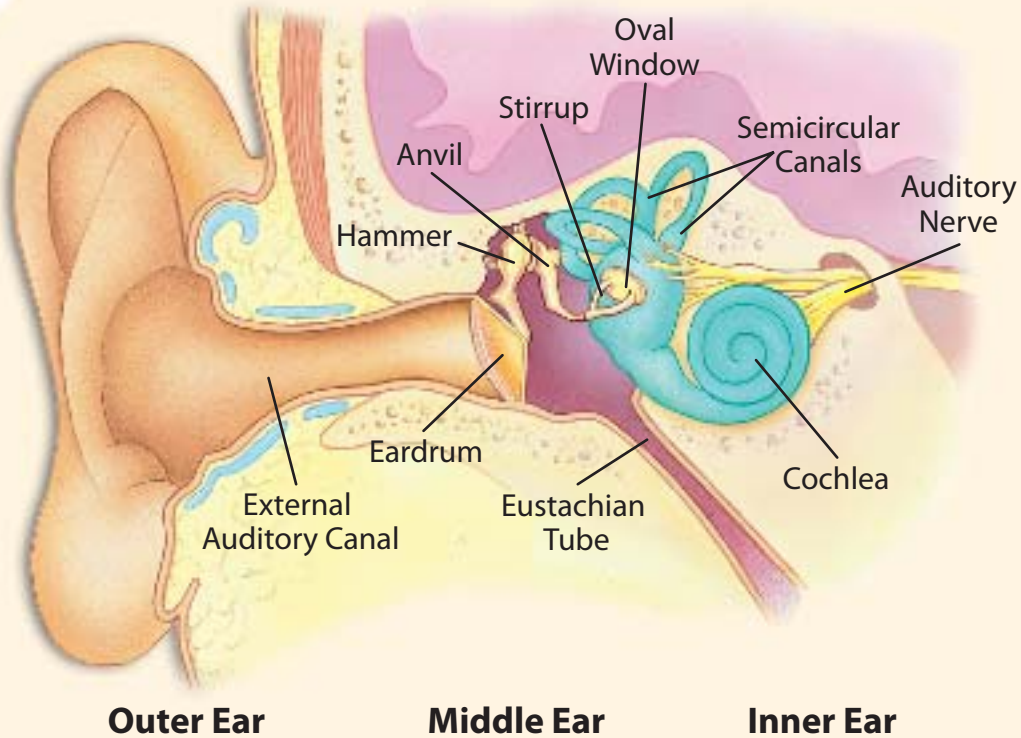


▶ **FIGURE 15.3**

PARTS OF THE EAR

The ear has three main parts: the outer ear, the middle ear, and the inner ear.

What are the functions of the ear?



Lesson 1 Review

After You Read

Review this lesson for new terms, major headings, and Reading Checks.

What I Learned

1. **Identify** What are the functions of the skin?
2. **Vocabulary** What is *plaque*? Why should plaque be removed?
3. **Recall** Name two ways of caring for and protecting the ears.

Thinking Critically

4. **Apply** A friend of yours is planning to get a pierced lip. What potential risks does this plan involve?

5. **Analyze** Tim likes playing handball. However, he doesn't like the way the protective goggles look. What decision does Tim need to make?

Applying Health Skills

6. **Accessing Information** Choose one of the body areas discussed in this chapter. Using reliable sources, find out four new facts about the care of this part of the body. Share your findings with classmates.

Lesson 2

Being a Smart Health Consumer

Guide to Reading

● **Building Vocabulary**

Identify the terms you think you know. Define these in your notebook.

- consumer (p. 379)
- consumer skills (p. 379)
- comparison shopping (p. 381)
- warranty (p. 381)
- health fraud (p. 381)

● **Focusing on the Main Ideas**

In this lesson, you will learn to

- **identify** skills of an informed consumer.
- **describe** factors that play a role in comparison shopping.
- **explain** how to resolve problems with purchases.
- **analyze** advertisements for health products or services.

● **Reading Strategy**

Finding the Main Idea For each main heading in this lesson, write one sentence that states the main idea.

Becoming an Informed Consumer

Each day American consumers spend millions of dollars for goods or services. A **consumer** is *anyone who uses products or services*.

As a teen you are making more consumer decisions on your own. As you grow older, you will be responsible for more consumer choices. Learning **consumer skills**, *techniques that enable you to make wise, informed purchases*, will help you become a smart shopper. Smart shoppers know how to compare products in terms of quality, effectiveness, safety, and cost. They also know how to resolve problems with purchases.

Reading Check

Define What is a consumer?

- ▶ Consumer skills help you to make wise, informed purchases. **What are some examples of consumer skills?**

Quick Write

Write a letter to the maker of a product you bought that doesn't work. Explain the problems you had.





Health Skills Activity

Analyzing Influences

Reading Between the Lines

As a consumer you can use ads to your advantage. This means cutting through what the advertiser wants you to hear or see and getting to the information you need. Here are some ways for doing that:

- **Consider the source.** Where is the information in the ad from? When possible, trace a health claim back to its source. Claims like “nine out of ten doctors recommend” are meaningless. Also, beware of *infomercials*, ads meant to look like impartial TV programs.
- **Consider the approach.** What techniques are being used to attract your attention or appeal to you? Some advertisers use celebrities to promote their products. Admiring a person’s talents or looks is not a good reason for choosing a product. Another technique advertisers use is hidden messages. These are often pictures showing seemingly happy, attractive people. The message implies that the product will make you happier and healthier. One last advertising approach is the “testimonial.” Ordinary-looking people claim to have gotten great results, but they may be paid actors. Learning to identify these techniques will help you avoid being swayed by them.

On Your Own

Analyze an ad for a health product or service. What technique did the advertiser use? Are the health claims in the ad from a reliable source?

Influences on Your Buying Decisions

Informed consumers are aware of the many factors that play a role in their buying decisions. One factor is personal taste. Many of the products people buy are items they have tried and liked. Another factor is personal need.

One of the most important influences on your buying decisions is media messages. Each day you receive hundreds of messages from TV, radio, the Internet, newspapers, and magazines. Advertising is a strong influence. According to one industry source, around 3,000 ads a day are seen by the average American. Informed consumers know how to analyze information in ads. The Health Skills Activity above gives some useful tips for evaluating ads.

Comparison Shopping

“Compare and save!” You’ve probably seen lines like this in ads or on store displays. This advice relates to the consumer skill of **comparison shopping**, or a method of judging the relative benefits of competing products or services based on quality, effectiveness, safety, and cost. Suppose you want to purchase a sunscreen that offers maximum protection against the sun’s UV rays. You might compare different brands, read the ingredients, and the application instructions. Look for one that has a *sun protection factor* (SPF) of at least 15. This will help protect you against the sun’s harmful rays.

How about cost? Some brands may have identical volume and ingredients but vary in cost.

Another factor that may affect your purchase is whether an item carries a **warranty**. This is a *promise to refund your money if the product doesn’t work as claimed*. A warranty shows that a company stands behind its product.



Reading Check

List What factors are evaluated in comparison shopping?

Managing Consumer Problems

Products usually work as advertised. Unfortunately, some people and businesses sell products or services that don’t work. When this is done purposefully to deceive the buyer, the seller has committed *fraud*. This is a crime punishable by law.

One of the most serious kinds of fraud is **health fraud**. This is the *selling of products or services to prevent diseases or cure health problems which have not been scientifically proven safe or effective for such purposes*. Making inaccurate claims about a health product can give false hope to people who are seriously ill. Some products may even pose a risk to your health. If you believe you have been a victim of health fraud, contact the Food and Drug Administration. You will learn more about this agency in the next lesson.



Connect To... Math



Unit Price

Understanding *unit price* is important when comparison shopping. This is cost per unit of weight or volume. To figure out unit price, first find the weight or volume given on a product container. (Make sure that both products are measured in the same type of units.) Next divide the price of the product by its weight or volume. The amount you end up with is the unit price.

An 8 fl. oz. bottle of lotion costs \$3.89. What is its unit price?

What Teens THINK

How do companies make their products appealing to you?

In my opinion, what makes a product appealing is how it looks. That says a lot. If it is clothes, it is usually the way they look on and the brand name of the item that counts. If it is a game, it is usually the way the box describes the game. So many things make a product appealing.

Mikel H.
Sandy, UT



Problems with Products

In spite of a manufacturer's best efforts, a particular product may be defective. Sometimes, the store where you bought the item will be willing to take it back. For example, you may have bought a bottle of aspirin and opened it to find they were all stuck together. With your receipt, a reputable store will have no problem returning your money. A good consumer habit is to keep your sales receipts until you are certain you are satisfied with the product. You should also ask about the store's return policy before purchasing from a store. In some cases, your only remedy will be to send the product back to its manufacturer.

Online Shopping

Buying over the Internet can be fun, easy, and convenient. However, just like buying in a store, consumers need to be aware and take precautions to prevent problems.

When buying online, know who you are dealing with. Anyone can set up a shop online. Confirm the seller's physical address and phone number in case you need to get in touch with him or her.

Check different Web sites and compare prices of the same item including shipping costs. Find out what their return policies are and whether or not you will have to pay shipping costs to return the item. Always pay by credit card, never send cash. Print and save records or receipts of your online purchases.

Go Online

Visit glencoe.com and complete the Interactive Study Guide for Lesson 2.



Lesson 2 Review

After You Read

Review this lesson for new terms, major headings, and Reading Checks.

What I Learned

1. **Vocabulary** What are *consumer skills*?
2. **Recall** Name two factors a comparison shopper evaluates.
3. **Describe** What should you do if a product you purchased is defective?

Thinking Critically

4. **Evaluate** Which factor(s) most influence your shopping decisions—price, quality, effectiveness, or safety? Explain.

5. **Analyze** Why are consumer skills important? Explain your answer.

Applying Health Skills

6. **Analyzing Influences** One influence on teen buying habits is peer pressure. Think about brands of clothing or footwear popular among your peers. Why are these items appealing to teens? Share your thoughts in class.

Lesson 3

Using Medicines Wisely

Guide to Reading

Building Vocabulary

Organize the terms into a word web. Decide which term is central to all other terms.

- medicines (p. 383)
- prescription medicines (p. 383)
- over-the-counter (OTC) medicines (p. 384)
- vaccine (p. 384)
- antibiotics (p. 385)
- side effect (p. 386)

Focusing on the Main Ideas

In this lesson, you will learn to

- **identify** types of medicines.
- **explain** ways medicines are taken into the body.
- **describe** factors that determine how medicines affect the body.

Reading Strategy

Classifying Make a chart of the kinds of medicines mentioned in the lesson.

Medicines

When sickness or injury occurs, medicines can often help a person feel and/or get better. **Medicines** are *drugs that are used to treat or prevent diseases and other conditions*. Medicines in the United States are carefully controlled. The Food and Drug Administration (FDA) sets standards for medicine safety and effectiveness. Before a medicine can be manufactured and sold, it must be approved by the FDA.

Prescription and Nonprescription Medicines

One of the FDA's roles is to evaluate a new medicine based on research provided to the agency by the drug manufacturer. The FDA evaluates medicines in two forms:

- **Prescription medicines** are *medicines that can be sold only with a written order from a physician or nurse practitioner*. The FDA requires standard information to appear on the label of any prescription medicine. This information includes instructions on how much medication to take, how often, and how long to continue taking the medicine. A sample label appears in **Figure 15.4** on the next page. As a smart health consumer, you should always read these labels carefully before taking any medicine.

Quick Write

Describe a time when you took a medicine. State what the medicine was meant to treat and how you took it.

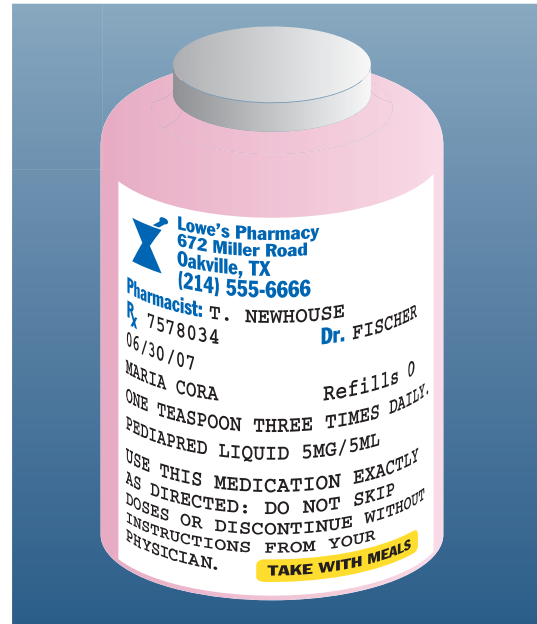


▶ **FIGURE 15.4**

PRESCRIPTION MEDICINE LABEL

Medicine labels provide important information.

How many times can this prescription be refilled?



▼ There are different medicines for many types of illnesses and conditions.

What kinds of nonprescription medicines do you have in your house?

- **Nonprescription medicines.** Some medicines are less risky than others. They are sold as nonprescription, or **over-the-counter (OTC) medicines.** These are *medicines that are safe enough to be taken without a written order from a physician.* Even OTC medicines can be harmful if used incorrectly. You should read OTC labels as carefully as you would prescription labels.

Reading Check

Identify What is another name for over-the-counter medicines?



Types of Medicines

Relieving symptoms of a chronic condition is one function of medications. Others include preventing disease, fighting infection, and easing pain.

Medicines to Prevent Diseases

A **vaccine** is a *medicine that prevents a disease from developing.* Vaccines are made from dead or weakened germs that cause the immune system to produce antibodies. *Antibodies* are proteins that attack and kill or disable specific germs that cause disease. Some vaccines provide protection over a number of years. Others, such as the flu vaccine, are given once a year. The chart in **Figure 15.5** shows some common vaccines given today.



▼ FIGURE 15.5

TYPES OF MEDICINES

Different types of medicines treat or prevent different illnesses.
Which of these medicines have you been given?

| Type of Medicine | Some Examples | Disease or Problem |
|------------------|--------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Vaccines | <ul style="list-style-type: none"> • MMR vaccine • Varicella vaccine • HPV vaccine • Pertussis vaccine | <ul style="list-style-type: none"> • Measles, mumps, and rubella • Chicken pox • Human Papillomavirus • Whooping Cough |
| Antibiotics | <ul style="list-style-type: none"> • Penicillin • Cephalosporin • Tetracycline • Macrolides | <ul style="list-style-type: none"> • Strep throat, pneumonia, STDs • Meningitis, skin rash • Urinary tract infections, Rocky Mountain spotted fever • Given to patients allergic to penicillin |
| Pain Relievers | <ul style="list-style-type: none"> • Aspirin, acetaminophen, ibuprofen, codeine | <ul style="list-style-type: none"> • General pain relief |

Medicines to Fight Infection

When a person develops a bacterial infection, his or her doctor may prescribe an antibiotic to treat the infection. **Antibiotics** are *medicines that reduce or kill harmful bacteria in the body*. Several common classes of antibiotics appear in Figure 15.5. Each type of antibiotic fights specific strains of bacteria.

Medicines to Relieve Pain

Have you ever had a sore back, toothache, or headache? If you took medicine to feel better, it was most likely a pain reliever. Some common pain relievers are shown in Figure 15.5. Pain relievers block or lessen pain signals sent through the nervous system. Many pain relievers are available over-the-counter. Some are used to treat more serious pain and are available only with a prescription.



Reading Check

List Name three different types of medicines.




How Medicines Enter the Body

There are several common ways medicines enter the body. Swallowing, or ingestion, is the most common way medicines are taken. Pills, tablets, capsules, and liquids are taken this way. The medicine moves through the stomach and small intestine. From



Speech Therapist

 Speech therapists work with people who have hearing or speech impairments to find possible causes and treatments. There will always be a need for speech therapists because not all people can communicate in the same way. If you would like to become a speech therapist, you should practice your communication skills. You should also study the parts of the body that contribute to hearing and speaking.

What kinds of treatments are available for people with hearing and speaking problems? Go to Career Corner at glencoe.com to find out.

there it passes into the bloodstream and circulates throughout the body. Cold medicines and pain relievers are often delivered this way.

Injection, or shot, is another way in which medicines are given. Injected medicines enter the bloodstream and begin to work more quickly.

Medicine can also be inhaled as a mist or fine powder. Inhalation is a relatively new delivery system. People with asthma often use an inhaler. Cold or sinus medication can be breathed in through the nostrils.

Medicines are also given topically, or applied to the skin. Creams and ointments are often applied this way. Skin patches that release medicine over time are a fairly new delivery method.



Reading Check

Describe What types of medicines are swallowed?



Medicine in the Body

How medicines affect the body depends on the type and amount of medicine taken. The individual's chemical makeup, age, gender, and body size also matter. An allergic reaction to a medicine is an unwanted effect that can be deadly.

In general, *any effect of a medicine other than the one intended* is considered a **side effect**. Typical side effects include headache, upset stomach, and drowsiness. Commonly reported side effects of a medicine are listed on or inside the product's packaging. Any reaction that is unexpected or unwanted should be reported to the doctor or pharmacist.

- ▶ When using medicines, it is important to keep them out of reach of young children.
Why is it important to be responsible when using medicines?



Risks of Medicines

When a person uses a particular medication for a long period of time, he or she may develop a tolerance. This is a process in which your body needs more and more of a medicine to get the same effect. In some cases, the medicine loses its effectiveness altogether and the doctor will need to prescribe a different medication.

Overuse is another problem. The more an antibiotic is used, the less effective it becomes. Why? Bacteria build up a resistance to antibiotics with frequent exposure. They adapt to—or overcome—the antibiotic. Bacteria can also develop a resistance when antibiotics are not taken as prescribed. For example, if the prescription label says to take the medicine for 14 days and you stop after 7 days, the bacteria may still be present and could make you feel sick again. Medicines should always be used wisely and only as directed.

Finally, taking two or more medicines at once can be dangerous. Always let your doctor and pharmacist know what other medicines you are taking before starting a new medicine.

Go Online

Visit glencoe.com and complete the Interactive Study Guide for Lesson 3.



Reading Check

Identify Name two risks of medicines.

Lesson 3 Review



As You Read

Review this lesson for new terms, major headings, and Reading Checks.

What I Learned

1. **Vocabulary** What type of medicine prevents a disease from developing?
2. **List** Name two ways medicines are taken into the body.
3. **Describe** What factors determine a medicine's effect on the body?

Thinking Critically

4. **Analyze** A friend of yours on the football team wants an energy burst before a game. He wants to take a handful of vitamins. When you express concern, he says, "They're over-the-counter vitamins." Respond to this comment.

5. **Hypothesize** Laura's doctor has prescribed a medicine to treat a case of poison ivy. She also regularly takes medicine because she has trouble concentrating. Should Laura tell her doctor what medicine she is already taking? Why or why not?

Applying Health Skills

6. **Accessing Information** The Internet makes it easier than ever to get information about medications. As part of a group, use the Internet to research a popular drug that you have seen advertisements for. What condition does the drug treat? What are its side effects? Share your findings with other groups.

Lesson 4

Choosing Health Services

Guide to Reading

Building Vocabulary

Divide the terms into two lists—one for doctors, one for groups or organizations.

- health care system (p. 388)
- preventive care (p. 388)
- specialist (p. 389)
- allied health professionals (p. 389)
- health insurance (p. 391)
- managed care (p. 391)

Focusing on the Main Ideas

In this lesson, you will learn to

- **identify** different kinds of health care providers.
- **explain** changes in health care settings.
- **describe** ways people pay for health care.

Reading Strategy

Classifying As you read the lesson, list the different health care options. Find examples of each in your own community.

Quick Write

Write a brief description of your health care team. Name all the doctors and other people who provide health care services to you.

The Role of Health Care

When Rick fell and hurt his leg, his mom took him to the hospital emergency room. There, a nurse wrote down information about Rick's health and medicines he was taking. Rick was taken to another room, where a technician took X rays. A doctor looked at the X ray, examined his leg, and told him it was broken.

The people Rick saw at the hospital are part of our **health care system**. This term refers to *the medical services available to a nation's people and the manner in which these services are paid for*. Different countries have different kinds of health care systems. Originally, health care in America served people who were sick or injured. Today the system also provides preventive care. **Preventive care** is *the steps taken to keep disease or injury from happening or getting worse*.

- ◀ Health care includes diagnosing illnesses and treating injuries. **When was the last time you were treated by a health care professional?**





Health Care Providers

Rick was treated by a team of health professionals. Your health care is probably also a “team” effort. The leader of your personal health care team is your primary care physician. This is the medical professional who provides physical checkups and general care.

Sometimes a problem will be beyond your primary care physician’s specific training or experience. When this happens, she or he will refer you to a **specialist**. This is *a doctor trained to handle particular kinds of patients or medical conditions*. An allergist is one type of specialist. A dermatologist, or skin doctor, is another. **Figure 15.6** lists different kinds of specialists and the conditions they treat.

Still other medical professionals you routinely see may include a dental hygienist. If you wear glasses or contacts, you may have your eyes checked by an ophthalmic (oph·THAL·mik) technician. Professionals like these are known as **allied health professionals**. They are *medical professionals who perform duties which would otherwise have to be performed by doctors or nurses*.



Types of Health Care

Rick’s treatment at the hospital was as an *outpatient*. In outpatient care, the person receives treatment and then returns home. *Inpatient* care involves staying at a hospital or other health care facility. Many surgeries are done on an inpatient basis, though some minor surgeries are being done at outpatient surgical centers.

| Specialist | Conditions They Treat |
|--------------|---------------------------------------------------------------------------------------------------|
| Cardiologist | Treats diseases and conditions of the heart. |
| Psychiatrist | Treats and prescribes medication for patients who have mental, behavioral, or emotional problems. |
| Osteopath | Treats disorders of the human body, related to bones, muscles, and nerves. |
| Oncologist | Treats patients with all types of cancer. |
| Dietitian | Treats nutrition-related diseases, works with patients to develop nutritious eating habits. |
| Neurologist | Treats diseases of the brain and nervous system. |

FIGURE 15.6

HEALTH CARE SPECIALISTS

Health care specialists treat specific conditions to provide patients with the best care.

What conditions do oncologists treat?



In these facilities, the person is operated on and released the same day. An example of a surgery done at an outpatient center is the repair of a hernia.



Reading Check

Identify Name two types of health care professionals.

Changes in Health Care Settings

Health care used to be delivered mainly in doctor's offices or hospitals. Over the years, additional types of health care delivery settings have been created.

- **Surgery centers** are facilities that offer outpatient surgical care. For general outpatient care, many people go to clinics. Clinics often have primary care physicians and specialists on staff.
- **Hospice care** provides a place where terminally ill patients can live out the remainder of their lives. Hospice workers are experts at pain management. They are also skilled at giving emotional support to the patient and family. Terminally ill patients can also receive hospice care in their own homes.
- **Assisted living communities** offer older people an alternative to traditional nursing homes. In assisted living communities, older adults are permitted to select the services they need. For example, they may only need help with transportation, remembering to take their medicines, or making meals. As long as they are able, residents live in their own private living quarters. A medical staff is available if and when residents need help.



- ▶ This teen is visiting a grandparent at an assisted living center. **How do these communities differ from traditional nursing homes?**

Covering the Costs of Health Care

Another area of health care that is changing is the way in which costs are covered. Many people have health insurance to help cover costs. **Health insurance** is a plan in which private companies or government programs pay for part of a person's medical costs. Traditional health insurance plans may pay up to 80 percent of the cost of outpatient care. They pay an even greater percentage of inpatient care. Many businesses pay a portion of their employees' and their families' health insurance costs.

With recent increases in the cost of health insurance, the insurance industry and care providers have worked to develop lower-cost alternatives, such as **managed care**. This is a plan that saves money by limiting the choice of doctors to patients who are members. People pay a monthly fee called a *premium* to the insurance company for health insurance. They are able to save money by seeing doctors and other health care providers who participate in the managed care plan.

Other health insurance alternatives available to some Americans are two government insurance programs, Medicaid and Medicare. The first is designed to assist people with limited income. The second is for adults over the age of 65, and for those with certain disabilities.

Reading Check

Compare Tell how traditional health insurance differs from managed care.

Go Online

Visit glencoe.com and complete the Interactive Study Guide for Lesson 4.

Lesson 4 Review

After You Read

Review this lesson for new terms, major headings, and Reading Checks.

What I Learned

1. **Recall** Name two types of health care providers.
2. **Give Examples** Name two types of health care settings.
3. **List** What are some ways in which people pay for health care?

Thinking Critically

4. **Evaluate** How does managed care help reduce health care costs?

5. **Synthesize** How might an assisted living community affect the health of a senior citizen?

Applying Health Skills

6. **Practicing Healthful Behaviors** One way of reducing health care costs in America is developing positive health behaviors. What are some behaviors that you could do to stay healthy? Make a list of these.

Lesson 5

Public Health

Guide to Reading

Building Vocabulary

As you read this lesson, write each new highlighted term and its definition in your notebook.

- public health (p. 392)
- recall (p. 393)
- famine (p. 395)

Focusing on the Main Ideas

In this lesson, you will learn to

- **explain** the role of government agencies in public health.
- **identify** the health-related jobs done by nongovernment agencies.

Reading Strategy

Organizing Information Using headings from this lesson, create a graphic that shows different ways in which public health is protected.

Quick Write

State what you think the term *public health* means. Then add a short explanation of why public health is important.

What Is Public Health?

Tim had been running nonstop for a half hour. He stopped at a water fountain in the park and took a drink. Tim assumed that the water was safe to drink. Who is responsible for the safety of your drinking water? How about the food you eat or medicines you take?

You can be confident your food, medicine, and water are safe because Americans have systems for public health.

Public health involves efforts to monitor and promote the welfare of the population.

Public health occurs on many levels. Every county in every state has its own public health department. The nation as a whole has agencies to protect the well-being of the American people. The world also has organizations that monitor the health of the “global community.”

Reading Check

Define What is public health?

- ◀ Each community maintains its own safe water supply. This includes the water that comes out of the faucets at your home, school, and from public fountains.

Do you know where the water that comes through your tap originates?





Federal Health Agencies

At the federal level, public health is overseen by the Department of Health and Human Services (HHS). HHS includes more than 300 programs in a variety of health areas. Among these programs are research, disease prevention, and food and drug safety. HHS is also responsible for the Medicare and Medicaid systems, as well as abuse prevention. **Figure 15.7** shows a list of the main agencies of HHS.

The Consumer Product Safety Commission (CPSC) works to reduce risks from unsafe products. If a product is found to cause health problems, or injury, the CPSC will issue a **recall**—*an announcement that informs the public that a product has been determined unsafe*. This is done through media announcements and by direct mail. The recall will list specific model numbers and the addresses where the defective goods should be returned.

FIGURE 15.7

MAIN AGENCIES OF THE DEPARTMENT OF HEALTH AND HUMAN SERVICES

There are several government agencies that work to protect public health. **What is the function of the Centers for Disease Control and Prevention?**

| | |
|--------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------|
| National Institutes of Health (NIH) | World's premier medical research organization. Supports over 38,000 research projects nationwide in diseases. |
| Food and Drug Administration (FDA) | Assures the safety of foods, cosmetics, medicines, and medical devices. |
| Centers for Disease Control and Prevention (CDC) | Provides a system of health monitoring to prevent disease outbreaks and maintain national health statistics. |
| Indian Health Service (IHS) | Provides health services to American Indians and Alaska natives of federally recognized tribes. |
| Health Resources and Services Administration (HRSA) | Provides access to essential health care services for people who are low-income, uninsured, or live in areas where health care is scarce. |
| Substance Abuse and Mental Health Services Administration (SAMHSA) | Works to improve the quality and availability of substance abuse prevention, addiction treatment, and mental health services. |
| Agency for Healthcare Research and Quality (AHRQ) | Supports research on health care systems, health care quality and cost issues, access to health care, and effectiveness of medical treatments. |



Health Skills Activity

Accessing Information

International Red Cross

The Red Cross is an international agency that helps people worldwide during times of war or disaster. The Red Cross was started in Switzerland during the 1800s. Its goal then was to care for wounded soldiers. Today, the Red Cross has chapters in nearly 200 nations.

In times of need, the International Red Cross provides medical treatment, food, clothing, and shelter. It also sponsors classes in first-aid and cardiopulmonary resuscitation (CPR). You may also know the American Red Cross for its blood donation work in the United States. Like the International Red Cross, the agency collects blood from volunteers. After processing, this blood is used for blood transfusions where needed.

On Your Own

Find out what services your local chapter of the American Red Cross provides. Share your findings with the class.

Nongovernment Health Organizations

Federal agencies are paid for by tax dollars. Other health organizations exist purely through donations of money and/or time. The American Heart Association and American Cancer Society are two such organizations. Staffed by employees and volunteers, these organizations provide important health information. They help the public to keep informed about research and new developments to treat these diseases. They also help fund research efforts for ways to prevent and cure diseases and respond to sudden illness and injury. Finally, nongovernment health organizations provide programs that teach prevention of disease and respond to health emergencies and disasters.

Reading Check

Explain How are organizations like the American Heart Association funded differently than government organizations?



Public Health at the International Level

Americans have a vast network of health agencies to rely on. The same is not true for people throughout the world and especially those in developing nations. A lot of diseases that no longer



Go Online

Topic: Knowing Community Resources

Visit glencoe.com for Student Web Activities to learn about different kinds of public health information and services available.

Activity: Using the information provided at the link above, make a list of public health resources that are available in your community.

pose a health threat to Americans are still problems in developing countries. In many places throughout the globe, populations are faced with **famine**, a widespread shortage of food. Famine leads to starvation and death.

Fortunately, the international community has made world health a priority. International organizations that head this effort include the World Health Organization (WHO). WHO is an agency of the United Nations with members in 200 countries and territories. Another organization, Doctors Without Borders, is a group of physicians, allied health professionals, and other volunteers. Doctors Without Borders provides care to people in 70 countries who are affected by disasters, medical emergencies, or wars. These groups provide information and aid to struggling communities and nations. Like the nongovernment agencies mentioned earlier, they rely on donations to continue their efforts.

Reading Check

List Name an international organization that does public health work in developing countries.



Visit glencoe.com and complete the Interactive Study Guide for Lesson 5.

Lesson 5 Review

After You Read

Review this lesson for new terms, major headings, and Reading Checks.

What I Learned

1. **Describe** What are some agencies of the Department of Health and Human Services? What kinds of efforts do these groups make in support of public health?
2. **Vocabulary** What is a *recall*? What information is included in a recall?
3. **Recall** Name two nongovernment health organizations. Tell what types of help these organizations offer.

Thinking Critically

4. **Analyze** Look again at Figure 15.7. Tell which of these agencies look after the well-being of less fortunate Americans. Briefly explain your answer.

5. **Synthesize** Imagine that a river floods halfway around the world, destroying farms and homes. Which public health organizations would be most likely to spring into action? What steps might they take to help the people of this region?

Applying Health Skills

6. **Advocacy** Some Americans may not be aware of the role public health agencies play in protecting our health. Working in a group, develop a public service announcement (PSA) that highlights the work of two public health agencies. Share your PSA with other groups.

Building Health Skills

Accessing Information

Practicing Healthful Behaviors
Stress Management
Analyzing Influences
Communication Skills
Refusal Skills
Conflict Resolution
Decision Making
Goal Setting
Advocacy

What Does Accessing Information Involve?

Accessing information involves finding reliable information to make healthy choices. When looking at a source of information, ask yourself these questions:

- Is it scientific?
- Does it give more than one point of view?
- Does it agree with other sources?
- Is it trying to sell something?

Finding Reliable Online Information

Follow the Model, Practice, and Apply steps to help you master this important health skill.

1 Model

Read how Judy uses the skill of accessing information to do Internet research for her health class report.

Judy needed to do a report for health class on recent research about vaccines. She knew the Internet would be a good source for finding the latest information.

Judy remembered that government agencies, professional organizations, and universities provide the most valid sources of information. She did a search for vaccines and scanned the pages for links that ended in **.gov, .org, and .edu**. Judy clicked on the link that took her to the home page of the Centers for Disease Control and Prevention (CDC). At the CDC Web site, Judy found a listing of current links that gave her everything she needed for her report.



2 Practice

Read how Blair uses the skill of accessing information to do research for her report on bone health.

For her report on bone health, Blair tried the CDC Web site. The site directed her to information that was too technical to understand. What Blair needed was a site designed for teens. She tried typing the word *teen* into the CDC internal search engine. She discovered a whole page with the heading “Health Topic: Adolescents and Teens.” She clicked the link to bone health and scrolled down to the bottom of the page.

1. Identify the things Blair did that helped her get reliable information.
2. What problem did Blair encounter? How did she solve the problem?
3. If the CDC site did not provide the information Blair needed, what else could she do?



3 Apply

Use what you have learned about accessing information to complete the activity below.

Work with a small group to prepare a short report on insects, ticks, and disease. Use your textbook to find basic information, then visit a valid Internet site to find four interesting facts about this topic. List the facts you discover and the Web address of the Internet site you visited. Record the date your sources were reviewed. Share your report with the class and explain why your Internet source is a valid source of information.

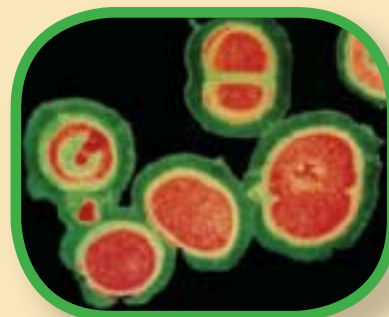
Self-Check

- Did we provide basic information?
- Did we include four facts?
- Did we use a valid source?
- Was our source current?

DANGER

In the Locker Room

A strain of antibiotic-resistant bacteria is striking athletes at an increased rate.



Twelve-year-old Nicolas Johnson scraped his shoulder during football practice. Infection from the wound spread to his lungs, and Nicolas spent five weeks recovering in a Texas hospital.

What turned this simple scrape into a dangerous illness? The culprit was the bacterium called *methicillin-resistant staphylococcus aureus*—or MRSA for short. It is a highly contagious bug that is resistant to most commonly used antibiotics.

STUDENT OR PRO ATHLETES—THIS BUG DOESN'T CARE



MRSA is infecting the world of sports, from high school wrestling mats and neighborhood health clubs to the locker rooms of colleges and professional teams.

“We’re seeing it more and more,” says Ron Courson, head athletic trainer at the University of Georgia. “You would be hard-pressed to find a football team at any level that hasn’t had to deal with it one way or another.”

In some people, the bacteria causes a minor infection. In others, it can lead to more severe illness. When a staphylococcus infection does develop, it’s usually treatable with powerful antibiotics.

KEEP IT CLEAN

The Centers for Disease Control and Prevention estimates that roughly 130,000 people are hospitalized with MRSA each year. Why is MRSA difficult to control? Its early symptoms are so tame that people

with the infection often don’t seek medical attention until it has begun to spread. Plus, MRSA can be passed easily from one person to another.

For example, scrapes on the skin from artificial turf can provide the entry point into an athlete’s body. Then the germ can be passed around in any number of ways—by sharing towels, for instance, or using locker room facilities that aren’t completely disinfected.

PREVENTING INFECTION

Some simple steps to keep MRSA from spreading:

- ▶ Wash hands regularly. Soap and water can effectively remove the bacteria before it causes trouble.
- ▶ Cover all wounds, even small ones. This closes off the potential entry points for MRSA.
- ▶ See a doctor at the first sign that a boil or welt seems to be worsening.
- ▶ Don’t share towels or other gear, and wipe down heavily used equipment such as weight machines before and after use.





Visit glencoe.com to download quizzes and eFlashcards for Chapter 15.



FOLDABLES® Study Organizer

Foldables® and Other Study Aids Take out the Foldable® that you created for Lesson 1 and any graphic organizers that you created for Lessons 1–5. Find a partner and quiz each other using these study aids.

Lesson 1 Personal Health Care

Main Idea It is important for you to know how to take care of your personal health.

- Skin problems include acne, sunburn, cold sores, and warts. Hair problems include oily hair, dandruff, and head lice.
- Nail problems include a hangnail or an ingrown toenail.
- Caring for your teeth and gums involves brushing, flossing, and visiting your dentist.
- Protecting your eyes includes wearing sunglasses, avoiding rubbing your eyes, and getting regular eye exams.
- Protecting your ears involves avoiding loud noises and using earplugs.

Lesson 2 Being a Smart Health Consumer

Main Idea Smart shoppers compare products for quality, effectiveness, safety, and cost.

- Factors that influence your buying decisions include personal tastes, need, and media messages.
- When businesses knowingly sell health-related products or services that don't work, they are committing health fraud.

Lesson 3 Using Medicines Wisely

Main Idea Using medicines wisely is a sign of good personal and consumer health.

- Prescription medicines are medicines ordered for you by a health professional.
- Nonprescription medicines (over-the-counter medicines) are medicines that you can buy without your doctor ordering it.
- Factors that determine how medicines affect the body include type and amount of medicine taken and the individual's chemical makeup, age, gender, and body size.
- Types of medicines include vaccines, antibiotics, and pain relievers.

Lesson 4 Choosing Health Services

Main Idea A health care system includes medical services available and the manner in which these services are paid for.

- The steps taken to keep disease or injury from happening or getting worse are known as preventive care.
- Health care providers include primary care physicians, specialists, and allied health professionals.
- Health insurance and managed care are two ways to cover the costs of health care.

Lesson 5 Public Health

Main Idea Public health involves efforts to monitor and promote the welfare of the population.

- A recall informs the public that a product is unsafe.
- Both government and nongovernment agencies work to protect the health and safety of the public.

After You Read

HEALTH INVENTORY

Now that you have read the chapter, look back at your answers to the Health Inventory on the chapter opener. Is there anything that you should do differently?

Reviewing Vocabulary and Main Ideas

On a sheet of paper, write the numbers 1–6. After each number, write the term from the list that best completes each sentence.

- consumer skills
- health fraud
- decibel
- lens
- dermis
- plaque
- epidermis
- warranty

Lesson 1 Personal Health Care

1. The outermost layer of the skin is the _____.
2. _____ is a soft, colorless, sticky film containing bacteria that coats your teeth.
3. A(n) _____ is a measure of the loudness of sound.

Lesson 2 Being a Smart Health Consumer

4. A(n) _____ is a promise to refund your money if the product doesn't work as claimed.
5. The selling of products or services that claim to prevent diseases or cure health problems which have not been

scientifically proven safe or effective for such purposes is known as _____.

6. _____ are techniques that enable you to make wise, informed purchases.



On a sheet of paper, write the numbers 7–15. Write **True** or **False** for each statement below. If the statement is false, change the underlined word or phrase to make it true.

Lesson 3 Using Medicines Wisely

7. Over-the-counter (OTC) medicines are medicines that can be sold only with a written order from a physician.
8. A medicine that prevents a disease from developing is called an antibiotic.
9. Medicines applied to the skin are said to be taken topically.

Lesson 4 Choosing Health Services

10. Preventive care is medical care that keeps disease or injury from happening or getting worse.
11. Outpatient care involves a stay at a hospital or some other health care facility.
12. In managed care, the health consumer pays a small fee known as a co-pay.

Lesson 5 Public Health

13. A recall will generally be issued by the HHS.
14. A famine is a widespread shortage of food.
15. The World Health Organization is one international organization that has made world health a priority.



Applying Technology

Thinking Critically

Using complete sentences, answer the following questions on a sheet of paper.

- 16. Synthesize** One skill emphasized in the chapter was learning to analyze advertising claims for health care products. How can this skill benefit you when you are making purchases?
- 17. Analyze** How can taking care of your teeth, hair, skin, and nails affect your total health?

Write About It

- 18. Persuasive Writing** Imagine you are teaching a younger sibling about personal care. Write a dialogue between you and your sibling in which you explain how to care for the eyes, teeth, ears, and skin.

Personal Care Movie

Using iMovie®, you and a partner will make a movie that teaches younger students about personal health care.

- Pick one of the following topics: skin, ears, teeth, eyes, hair, or nails.
- Write a two to three-minute script that discusses your topic. What is it? Where can it be found on the body? What does it do? How do you care for it?
- Include diagrams and pictures. Make your movie colorful and appealing to younger students.
- Edit for time and clarity. Make sure to use language that the students will understand.
- Arrange to show your movie to a class of younger students.

Standardized Test Practice

Math

Read the following statistics on hearing loss. Then answer the questions that follow.

- A survey by the National Center for Health Statistics reveals 23.3 million Americans have hearing loss.
- About 1.3 million of these people are 18 years old or younger.
- The National Institutes of Health reports that one-third of all hearing loss results from loud noises. Sources of these noises include power lawn mowers, jet engines, city traffic, loud appliances, and loud music.

1. What percentage of hearing loss cases reported by the National Center for Health Statistics involves teens?
 - A. 1.3 percent
 - B. 5.6 percent
 - C. 23.3 percent
 - D. None of the above
2. What approximate percentage of all hearing loss results from loud noises?
 - A. 33.3 percent
 - B. 25.5 percent
 - C. 55 percent
 - D. 80.5 percent

TEST-TAKING TIP

Make sure you understand the relationship between integers and percentages in number statements.