

Healthy Teeth, Skin, Hair, and Nails

Guide to Reading

● Building Vocabulary

The prefix *epi-* means "above" and the root *derma-* means "skin." Choose two terms from the list below that you think describe two layers of skin. Identify which layer is the outermost layer of skin. Add formal definitions for these terms to your notes as you read the lesson.

- | | |
|----------------------|---------------------------|
| ■ fluoride (p. 329) | ■ hair follicles (p. 330) |
| ■ plaque (p. 329) | ■ ultraviolet (UV) |
| ■ tartar (p. 329) | ■ trays (p. 331) |
| ■ pores (p. 350) | ■ melanin (p. 331) |
| ■ dermis (p. 350) | ■ acne (p. 332) |
| ■ epidermis (p. 350) | ■ dandruff (p. 332) |

● Focusing on the Main Ideas

In this lesson, you will be able to

- explain how to keep your teeth and gums healthy.
- describe ways to clean and protect your skin.
- identify how to care for your hair and nails.

● Reading Strategy

Organizing Information As you read the lesson, write down the functions of each body part discussed.

FOLDABLES Study Organizer Use the Foldables® on p. 327 as you read this lesson.

Quick Write

Write down three reasons why personal hygiene is an important part of health.

Healthy Teeth

Healthy teeth give you a great-looking smile. Teeth do more than help you look good, though. You need them to chew your food for digestion. You also need healthy teeth to speak clearly. Each tooth has a root that goes into your jawbone. Roots are surrounded by pink flesh called gums. The top of the tooth is the crown, which is covered with a layer of hard, white enamel.

Your teeth and gums need to last a lifetime. It makes sense to take good care of them. Limit sugary foods and soft drinks. Brush and floss often. Fruits, vegetables, and calcium-rich foods such as milk and yogurt will help you avoid tooth decay and prevent gum disease.

Tooth Care

The keys to having healthy teeth and gums are proper brushing and flossing. Brush after every meal (or at least twice a day) with toothpaste and a soft-bristled toothbrush. Rinse with warm water or with mouthwash. Use dental floss daily to remove plaque caught between your teeth, such as bits of food your toothbrush can't reach. Flossing also keeps gums healthy and prevents gum disease. **Figure 11.1** shows the right way to brush and floss.

Be sure to use a toothpaste or mouthwash that contains fluoride. **Fluoride** is a chemical that helps prevent tooth decay. In many areas, fluoride is added to tap water.

Tooth Decay

Brushing and flossing also remove plaque. **Plaque** is a thin, sticky film that builds up on teeth and leads to tooth decay. Bacteria in plaque feed on the carbohydrates—sugars and starches—in the foods you eat. These bacteria produce acids that can break down tooth enamel leading to tooth decay and holes, or cavities.

Plaque also causes tartar. **Tartar** is hardened plaque that hurts gum health. You can't just brush away tartar. A dentist or dental hygienist must remove it with special tools that clean and polish surfaces of the teeth.

Reading Check Compare How does plaque differ from tartar?

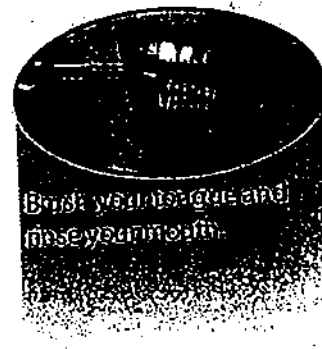
▼ FIGURE 11.1

BRUSHING AND FLOSSING THE RIGHT WAY

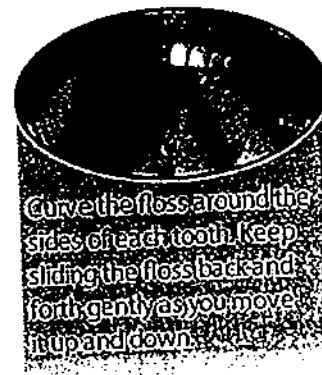
Brushing and flossing regularly helps prevent tooth decay and other health problems. How else can you improve the health of your teeth?

How to Brush

Be sure to brush your teeth for at least two minutes—30 seconds for each area of your mouth.



How to Floss



Healthy Skin

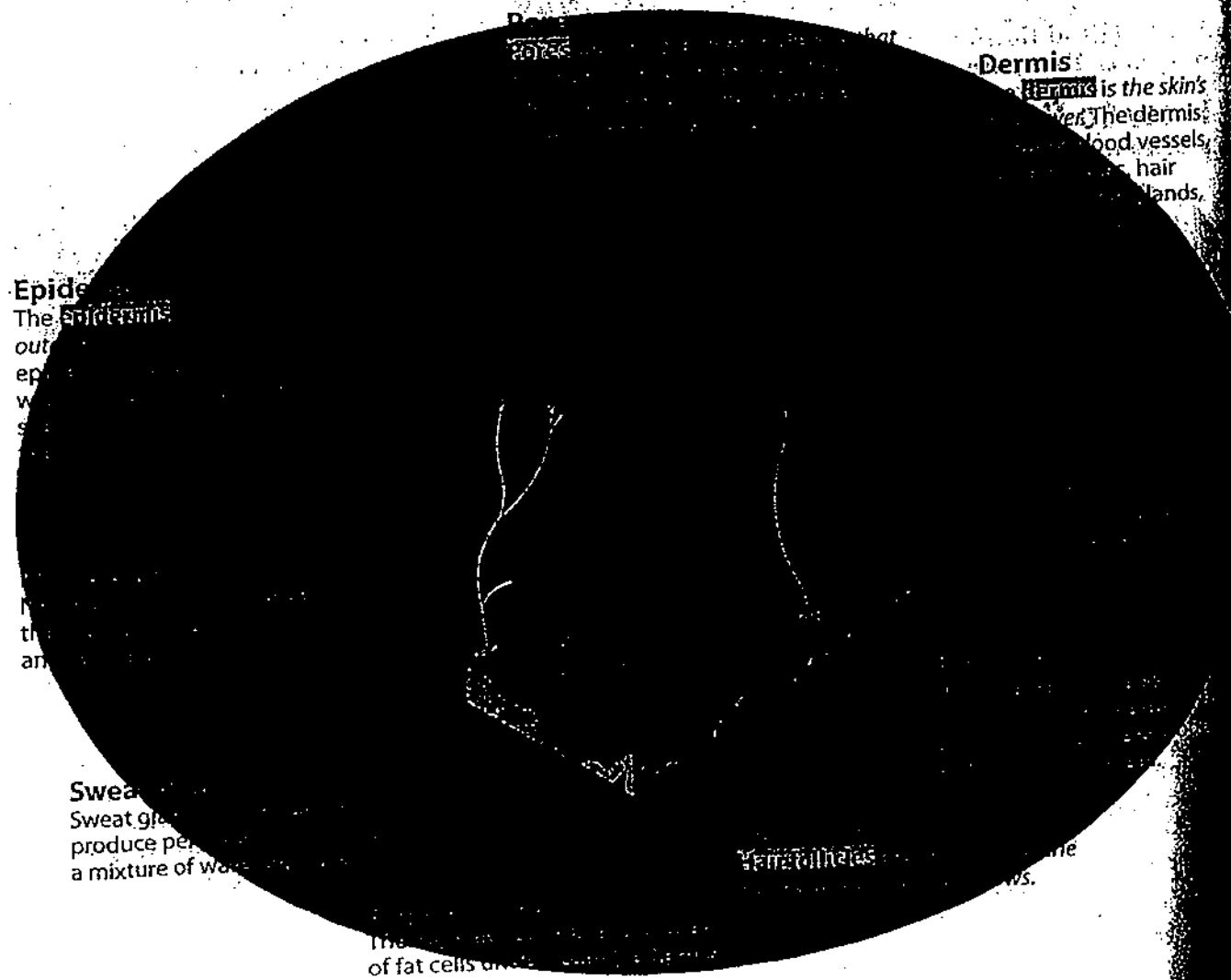
When you think of an organ, you might think of something like your heart or your stomach. You might overlook your body's largest organ, which doesn't lie beneath your skin—it is your skin! **Figure 11.2** shows the different layers that make up the skin.

Your skin has many jobs. It gives you a sense of touch and of temperature. Skin is the first line of defense against infection. It keeps germs from getting into the body. When you sweat, your skin gets rid of water and salts and cools your body. The blood vessels in your skin allow your body to control its temperature. Finally, your skin uses energy from sunlight to make vitamin D, which helps keep your bones and teeth healthy.

▼ FIGURE 11.2

PARTS OF THE SKIN

Each layer of the skin has a different function. What layer of the skin has structures that keep the skin from drying out?



Skin Care

Keeping your skin healthy can help you feel, look, and smell good. Try these tips for taking care of your skin:

- Take a bath or shower every day. Use soap to wash away dirt, sweat, oils, and bacteria that collect on your skin.
- Moisturize dry skin with lotion. Dry or cracked skin can itch or become irritated.
- Limit time spent in the sun, and avoid tanning beds. When you go outdoors, wear sunscreen to protect your skin from the sun's rays.
- Avoid tattoos and piercings. Permanent body decoration can put you at risk for disease and scarring.

Sun Damage

Factors in the environment can affect your personal health. The sun gives off **ultraviolet (UV) rays**, an invisible form of radiation that can enter skin cells and change their structure. Sunburn happens when UV rays damage skin cells. You might think soaking up lots of UV rays will give you a nice tan, but it will also wrinkle your skin. Even worse, too much time in the sun increases the risk of skin cancer. Be smart; protect yourself from UV rays by limiting your sun exposure and by using sunscreen.

Special cells in the epidermis make **melanin**, the substance that gives skin its color. Darker skin has more melanin than paler skin. Melanin can block some, but not all, UV rays from reaching the lower layers of skin.

Being outdoors in the sun isn't the only way you can be exposed to UV rays. What about indoor tanning beds? Many people use them to stay tan year-round. Tanning beds also give off UV rays. They can damage the skin, lead to skin cancer, and hurt the eyes and immune system. The healthful choice is to stay out of tanning beds.

- Ultraviolet rays from the sun can harm skin cells. How can you protect yourself from ultraviolet rays and reduce your risks for developing skin cancer?

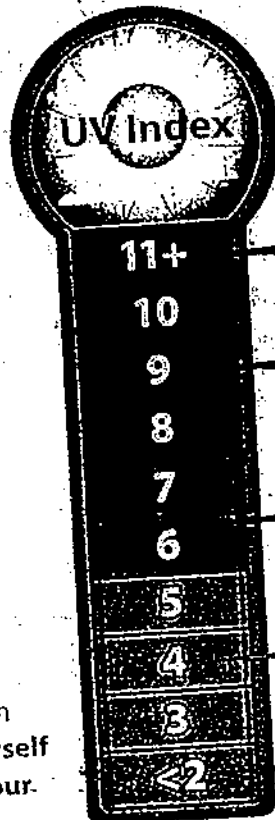


Connect To... Science

The Dangers of Body Decoration

Tattoos and piercings are created with needles or equipment that leave a pattern of permanent dye in the skin or punch holes in the skin. Dirty equipment and needles can spread serious infections such as HIV and hepatitis. Even with sterile needles, a tattoo or piercing can cause scarring.

Write a story about a teen whose friend wants to get a tattoo. In the story, show how the main character positively influences his or her friend to make a healthful choice about body decoration.



Levels 11 and higher: Extremely high risk. Avoid the sun between 10 A.M. and 4 P.M. Use sunscreen with an SPF of 15 or higher, and wear protective clothing and sunglasses.

Levels 8 through 10: Very high risk. Avoid the sun between 10 A.M. and 4 P.M. Use sunscreen with an SPF of 15 or higher. Wear protective clothing and sunglasses.

Levels 6 and 7: High risk. Cover up, wear a hat with a wide brim, and use sunscreen with an SPF of 15 or higher.

Levels 3 through 5: Moderate risk. Stay in the shade around midday.

Level 2 or below: Low risk. Wear sunglasses on bright days, cover up, and use sunscreen.

▼ FIGURE 11.3

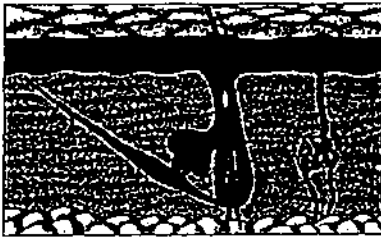
How ACNE FORMS

Whiteheads, blackheads, and pimples are all forms of acne that commonly affect teens. **What structure in the skin becomes clogged to form acne?**



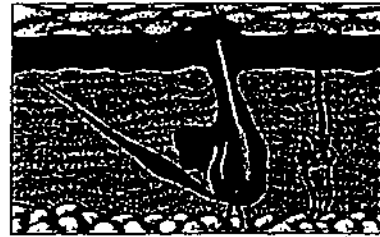
Whiteheads

A whitehead forms when a pore gets plugged up with the skin's natural oils and dead skin cells.



Blackheads

When a whitehead reacts to the air and darkens, it becomes a blackhead.



Pimples

A clogged follicle can burst, which lets in bacteria. The follicle becomes infected and a pimple forms.

Acne

Did you ever wake up on an important day, only to see a huge pimple? One skin problem experienced by many teens and some adults is acne. **Acne** is a skin condition caused by active oil glands that clog hair follicles. The openings of these hair follicles onto the skin are called pores. Bacteria gathers in the clogged pores, making them swell up. If you have a bad case of acne, you may need to see a dermatologist, a doctor who specializes in problems of the skin.

Figure 11.3 shows how acne forms. If you get acne, don't pick at it or try to pop the clogged pores. In fact, try not to touch your skin at all. Instead, wash the area with a mild soap and warm water. Be gentle, and don't scrub too hard. Washing helps remove the dirt, oil, sweat, or makeup that can cause pores to clog.



Go Online

Topic: Acne from A to Z

Visit glencoe.com for Student Web Activities where you can get the facts about the causes of and treatments for acne.

Activity: Using the information provided at the link above, create a fact sheet that contains information on acne myths and facts as well as acne treatments.

Reading Check

Identify What is acne?

Healthy Hair and Hair Care

You might spend a lot of time and money to give your hair "life" and "body." Hair grows from hair follicles in the scalp. The scalp is the skin beneath the hair on your head. Your hair contains a protein called keratin. Keratin gives hair strength and allows it to bend without breaking.

Caring for your hair keeps your scalp from getting irritated. Brushing your hair daily removes dirt from your hair and scalp. It also spreads oils throughout your hair. These natural oils help keep hair healthy and whole. Wash your hair with shampoo to clean away dirt and extra oil, leaving it looking and smelling clean.

Hair and Scalp Problems

One common problem with the hair and scalp is dandruff. **Dandruff** is a condition that results when too many dead skin cells flake off the outer layer of the scalp. Dandruff can happen due to certain skin diseases. It can also result from a fungus. Using a special dandruff shampoo can help control and prevent dandruff.

Head lice can also cause problems for the hair and scalp. Head lice are tiny insects that live and feed on strands of hair and can make a person's scalp itch. Anyone can get head lice. They spread when people share combs, brushes, hats, or other personal items. You can use a special shampoo to treat head lice.

Reading Check

Identify What protein is found in hair and nails?

Healthy Nails and Nail Care

Nails protect sensitive fingertips and the tips of toes. To care for your nails, wash your hands regularly. Use hand lotion to keep nails and skin moist. Clip nails to keep them trimmed and neat. Use a nail file to smooth any rough edges on your nails so they won't catch on objects and rip. Don't bite, tear, or pick at your nails. The same goes for your cuticles, the thin layers of skin-like tissue at the base of each nail. Otherwise, germs can invade the weakened tissue and infect it.

Go Online

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

Lesson 1 Review

After You Read

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

What I Learned

1. **Describe** Name two healthful behaviors that keep your teeth and gums healthy.
2. **Give Examples** Describe three functions of the skin.
3. **Vocabulary** Define *dandruff*. Describe how to treat it.
4. **Identify** What are ultraviolet rays?

Thinking Critically

5. **Analyze** How can the foods you eat affect the health of your teeth and gums?
6. **Apply** What can you do to care for your nails and cuticles?

Applying Health Skills

7. **Practicing Healthful Behaviors** Tisha's friends have invited her to join them at the beach. They plan on lying out in the sun to tan. How can Tisha protect her skin from the sun's UV rays?

Healthy Eyes and Ears

Guide to Reading

● Building Vocabulary

As you read the lesson, write down each highlighted term and its definition.

- optometrist (p. 336)
- ophthalmologist (p. 336)
- cataract (p. 336)
- glaucoma (p. 336)
- astigmatism (p. 337)
- tinnitus (p. 338)
- deafness (p. 338)
- decibel (p. 338)

● Focusing on the Main Ideas

In this lesson, you will be able to

- identify ways to keep your eyes healthy.
- explain why people wear glasses or contact lenses.
- describe ways to care for your ears.

● Reading Strategy

Organizing Information. As you read the lesson, create a chart that describes the functions of each body part discussed in the lesson and how to care for it.

| Body Part | Function | Care |
|-----------|----------|------|
| Eyes | | |
| Ears | | |

Quick Write

Make a list of five ways you have used your sense of hearing today. How would these activities be different if you could not hear very well?

Healthy Eyes

Like a camera, your eyes focus light in order to give your brain a picture of the world around you. Eyes allow you to see shapes, colors, and motion. Each part of the eye plays an important role in how you see. **Figure 11.4** shows the parts of the eye and explains how each one works.

Eye Care

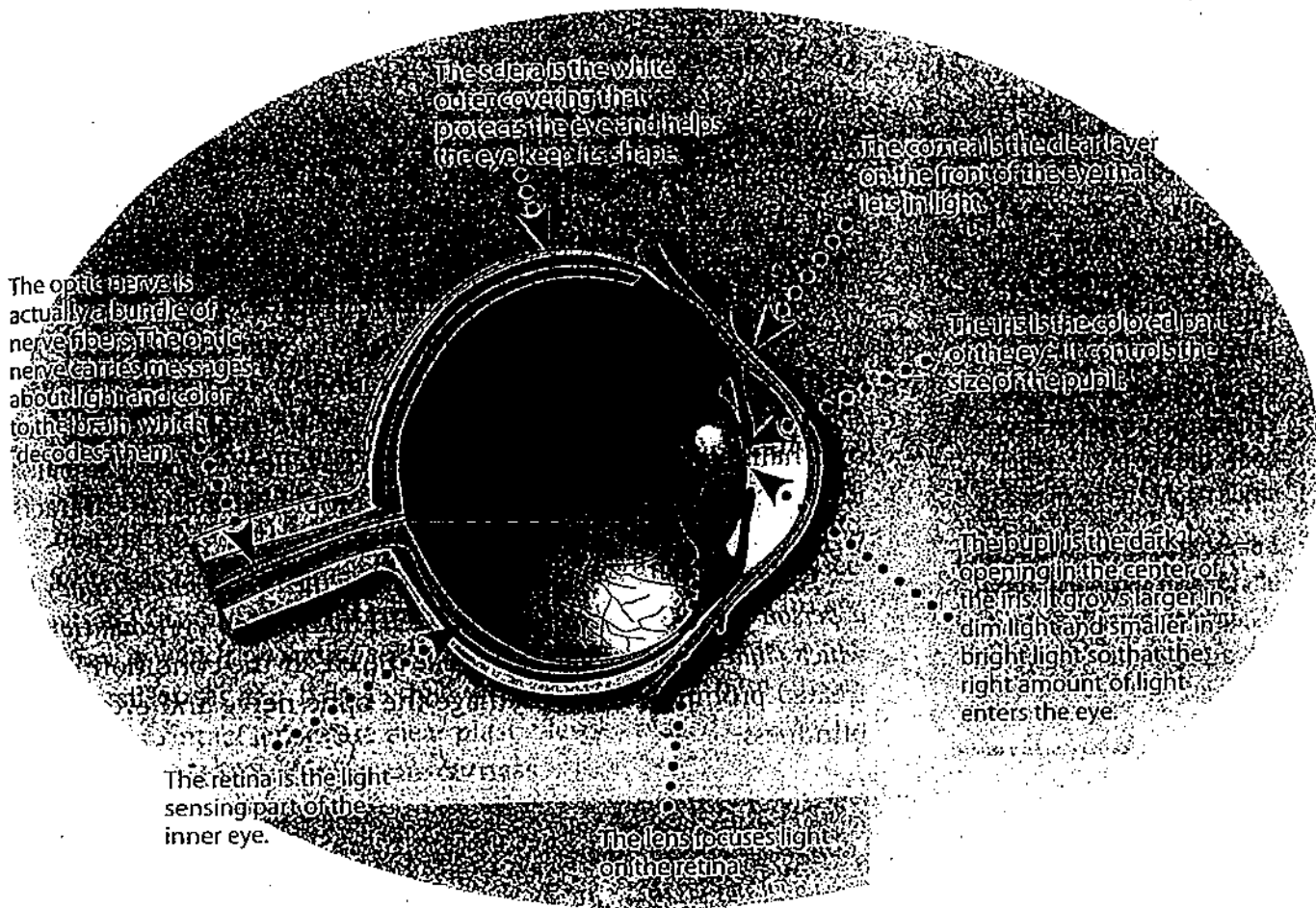
Your eyes need light to see. However, too much light can hurt them. The sun can be very hard on your eyes. For example, you should never look directly at the sun. In addition, UV rays can damage eye cells. You can solve this problem by wearing sunglasses that block UV rays.

Sitting too close to the television can cause eyestrain and headaches. Sit at least 6 feet away. If you get eyestrain while sitting at a computer, change the monitor position to cut down on the glare. Reading in dim light can also cause eyestrain. To reduce your risk for eyestrain and to protect your eyes, be sure you have adequate lighting while you read, work, or watch TV.

FIGURE 11.4

PARTS OF THE EYE

Here are some of the major structures in the human eye. Through what opening does light enter the inner part of the eye?



In many ways, your eyes are more delicate than your skin. Protect your eyes when you are doing yard work, handling power tools, or playing sports that involve flying objects. Wear glasses or goggles designed for these activities. Wear goggles when you work with strong chemicals, too. These chemicals could splash into your eyes. Chemical gases in the air or tiny bits of other material could blow into your eyes. Even small particles and dust can scratch your cornea and cause painful injury.

Don't rub your eyes if something gets in them. Don't use your hand to remove whatever is bothering them. Instead, flush particles out with clean water or eyedrops.

Diseases such as conjunctivitis, or pinkeye, can bother your eyes and make them very red. If your eyes feel painful for more than a short time, see a doctor right away. Also see a doctor if you have watery or crusty eyes.



Connect To... Science

Correcting Vision Problems with Lasers

Laser surgery can help correct vision problems such as nearsightedness. In this type of surgery, a doctor uses a special beam of light called a laser to reshape the cornea. This allows the cornea to focus light differently so that a person can see more clearly. Laser surgery is not for people under the age of 20, as their vision might still be changing.

Do research to find out more about laser surgery to correct vision problems. Prepare a one-page report of your findings.

Eye Examinations

Do you have trouble reading tiny print on a page? Does the writing on the chalkboard look blurry or fuzzy if you sit in the back of the room? If you answered yes, you might need corrective lenses: glasses or contacts. You can find out by having an optometrist check your vision.

An **optometrist** (ahp-TAH-muh-trist) is a health care professional who is trained to examine the eyes for vision problems and to prescribe corrective lenses. If you already wear glasses or contacts, visit an optometrist regularly. Schedule a routine visit at least once a year. Also see the optometrist any time you feel that your eyesight might be getting worse.

An optometrist might do initial tests for serious eye diseases. He or she may then send you to an ophthalmologist. An **ophthalmologist** (ahf-thahl-MAH-luh-jist) is a physician who specializes in the structure, functions, and diseases of the eye. An ophthalmologist fits people with corrective lenses. He or she also identifies and treats more serious eye problems, such as cataracts or glaucoma.

Cataract is an eye condition in which the lens becomes cloudy as a person ages. **Glaucoma** (glah-COH-mah) is an eye condition in which fluid pressure builds up inside the eye. If the condition is not treated promptly, it can damage the optic nerve and even cause blindness.



▲ Some activities put you at risk for splashing harmful chemicals into your eyes. What activities might put you at risk for this?

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◀ An optometrist can tell you if you need vision correction. **What are some signs that you may need to see a vision specialist for corrective lenses?**

Correcting Your Vision

Vision specialists often treat people who are nearsighted, farsighted, or have astigmatism. A nearsighted person can clearly see objects only if they are up close. A farsighted person can clearly see objects only if they are at a distance. Many people become farsighted as they get older. They may need reading glasses to see objects up close. **Astigmatism** (uh-STIG-muh-tiz-uhm) is *an eye condition in which images appear wavy or blurry*. Corrective glasses or contact lenses can help people with all three of these vision problems. Contact lenses are clear plastic lenses placed directly in the eyes. They rest on top of the corneas.

Academic Vocabulary

vision (VIZH uhn) (*noun*)
the act or power of seeing, sight. *Looking through another person's glasses can make your vision blurry.*

Reading Check

Explain What are three types of vision problems?

Healthy Ears

You probably know that your ears let you hear sound. Did you know that your ears also give you your sense of balance? **Figure 11.5** explains how ears control your senses of hearing and balance.

Ear Care

To care for your ears, wash and dry them regularly. Your ears produce earwax, which helps trap dirt and carry it out of the ear opening, or auditory canal. Use a wet washcloth to wipe off dirt and earwax on the outside of your ears. Do not insert anything inside your auditory canal. If you get water in your ears, use special ear drops to help dry out the water and prevent an infection. Protect your ears from the cold by wearing a hat or scarf that covers your ears, or earmuffs. See a doctor if any parts of your ears hurt or become infected.

Smart Consumer Choices

Guide to Reading

● Building Vocabulary

Read each of the words below. If the word is familiar, write down what you think it means. If it's not, guess at its meaning using word clues. For example, the word *infomercial* is a combination of the words *information* and *commercial*.

- consumer (p. 340)
- advertisement (p. 341)
- fraud (p. 342)
- endorsement (p. 342)
- infomercials (p. 342)
- comparison shopping (p. 343)
- generic products (p. 343)
- warranty (p. 344)

● Focusing on the Main Ideas

In this lesson, you will be able to

- explain what it means to be a consumer.
- describe what influences your buying decisions.
- evaluate media messages about consumer choices.
- apply accessing-information skills when making a consumer choice.

● Reading Strategy

Predicting Look at the main headings, figures, and captions before you read this lesson. Predict the kinds of information you might learn from the lesson. After you have read the lesson, look back to see if your predictions were correct.

Quick Write

List two products you buy regularly. Now list two services you pay for regularly. How often do you make each type of purchase? How do you decide which product or service you want?

Being a Responsible Consumer

A **consumer** is a person who buys products and services. You are a consumer when you buy products like a snack or a movie ticket. You are also a consumer when you pay for services such as a haircut.



- ▶ You make consumer choices all the time. What types of consumer choices can affect your health?

Most times, you can choose among products and services to buy. For example, when you shop for shampoo, many brands fill the store shelves. They have different prices and are designed to target different areas of your personal health. **Figure 11.6** discusses factors that might affect consumer choices. Be smart about which products and services you choose.

Reading Check

Describe What are two situations in which you are a consumer?

Advertising

You face choices every day about how to spend your money. One strong influence on what you choose to buy is advertising. An **advertisement** is a message designed to influence consumers to buy a product or service. It describes why the product might be good for you. Always remember, though, that advertisers spend billions of dollars to sell products and services. As a result, they may not explain a product's drawbacks or how it compares to competing products.

▼ FIGURE 11.6

INFLUENCES ON CONSUMER CHOICES

Teens often tell their friends about products and services they have bought and liked. How can your friends' buying tips help you make a wise purchase?

Personal Factors

You buy many products based on your personal interests and tastes. You may have had good or bad experiences with certain brands or products in the past.

Family Background

You might choose certain products or services because your family members always have, or because of cultural preferences.

Peers

Your friends may tell you to try certain products or brands. They may also tell you some are a waste of money. These opinions may affect your consumer choices.

Cost

Sometimes you make a consumer choice based on how much a product or service costs.


Salespeople

Salespeople often suggest certain products once you explain what you are looking for or what you need.

Advertising

Advertisers use many approaches to sell their products.


What Teens THINK



How do companies make their products look appealing to you?

Companies make their products appealing to me with commercials. If the coloring catches my eye, I always like it. If the company can prove that their product works, then there is a higher chance of me wanting it.

Bailey R.
Monument, CO



Evaluating Advertising

It helps to be able to judge an advertiser's claim. Before you decide to make a purchase based on an ad, ask yourself a few questions. Does the ad present facts or opinions? Does the product seem too good to be true? It might be fraudulent. **Fraud** is a calculated effort to trick or fool others.

Selling medicines that have not been proven to work is a form of *medical quackery*, or health fraud. These medicines may offer fast or painless cures, but they can be noneffective or harmful. They can even keep a person from getting the medical treatment they really need. Talk to a health care professional or other adult if you are unsure about a medicine or other health care product.

Types of Advertising

Companies use different techniques to sell products. Some ads focus on people's wish to be noticed. These ads claim that a brand name or designer product will make you popular.

Some ads suggest that a product will make you successful or beautiful, like the people shown in the ad. Many ads include celebrity endorsements. An **endorsement** is a *statement of approval*. Often, advertisers will pay actors or athletes large amounts of money to endorse a product.

Some ads show a group of teens having fun. These ads suggest that other teens use the product, so you should, too. It also sends the message that you'll have good times if you use the product.

Ads called **infomercials** are *long television commercials whose main purpose seems to be to present information rather than to sell a product*. An infomercial may look like a news story or even a TV show. However, an infomercial is really an ad. It always features some sort of product.

Reading Check

Explain How might a celebrity endorsement affect what you buy?

Think Before You Buy

So how can you be a smart shopper? Take some time to make an informed decision. **Figure 11.7** lists some questions to consider before buying a product or service. The Health Skills Activity on page 346 will help you become an intelligent health consumer.

Comparison Shopping

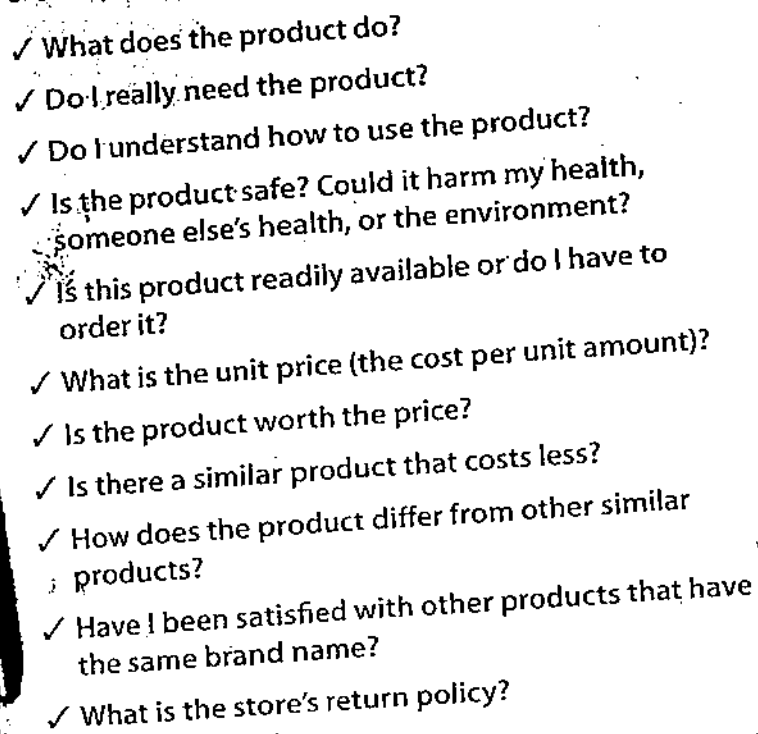
One way to make smart purchases is to comparison shop. **Comparison shopping** is collecting information, comparing products, evaluating their benefits, and choosing products with the best value. Different brands may differ in features, quality, or price. Some products may even have generic varieties.

Generic products are products sold in plain packages at lower prices than brand-name products. Many generic products have the same ingredients and produce the same results as similar brand-name products. Before buying, read the label and compare the ingredients to those found in a similar product. Make sure the generic variety has the same amount of active ingredient found in the brand-name product. This can help you determine whether the product will be as effective as the brand-name product.

▼ **FIGURE 11.7**

SHOULD I MAKE THIS PURCHASE?

Before you make a purchase, ask yourself several questions to help you make a healthful choice. **Where can you find answers to consumer questions?**

- 
- ✓ What does the product do?
 - ✓ Do I really need the product?
 - ✓ Do I understand how to use the product?
 - ✓ Is the product safe? Could it harm my health, someone else's health, or the environment?
 - ✓ Is this product readily available or do I have to order it?
 - ✓ What is the unit price (the cost per unit amount)?
 - ✓ Is the product worth the price?
 - ✓ Is there a similar product that costs less?
 - ✓ How does the product differ from other similar products?
 - ✓ Have I been satisfied with other products that have the same brand name?
 - ✓ What is the store's return policy?

Health Skills Activity

Accessing Information

Choosing the Right Product

When you plan to buy a health-related product or service, learn as much as you can about it. A poor decision can cost you money or even harm your health. Here are some ways to research all your options before buying.

- Compare labels.
- Do research at the library or on the Internet.
- Talk to others. Get advice from friends and family, as well as from experts.

With a Group

Choose a health care product or service. Make a list of at least ten questions about the product or service that you would like answered. Find at least four different brands of the product or four different service providers. Do research to answer the questions on your list. Which product or service would you choose?

Lesson 3 Review

After You Read

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

What I Learned

1. **Vocabulary** Define *fraud*.
2. **List** Name three of your rights as a consumer.
3. **Contrast** How does an endorsement differ from an infomercial?

Thinking Critically

4. **Analyze** Lotion A costs 20 cents per ounce. Lotion B costs \$3.20 for 15 ounces. Compare the costs of these health products in order to assess which is the better value.

5. **Apply** The label for Product A lists the following ingredients: 98 percent isopropyl alcohol and boric acid. Product B contains isopropyl alcohol and 4 percent boric acid. The active ingredient is isopropyl alcohol. Which product has a greater percentage of the active ingredient?

Applying Health Skills

6. **Decision Making** Imagine that you buy an electric toothbrush from a local store. When you first try to brush your teeth, it doesn't work properly. Using the decision-making steps on page 40, show how you would handle the situation.

Using Medicines Safely

Guide to Reading

● Building Vocabulary

As you read this lesson, write down each new highlighted term and its definition.

- medicine (p. 347)
- prescription medicine (p. 348)
- pharmacist (p. 348)
- over-the-counter (OTC) medicine (p. 348)
- side effect (p. 349)

● Focusing on the Main Ideas

In this lesson, you will be able to

- identify different types of medicines.
- describe the proper use of medicines.
- explain how to avoid misusing medicines.
- practice good decision-making skills when using medicines.

● Reading Strategy

Identifying Cause-and-Effect Look at the headings in this lesson. List three ways that medicines can help you. Then list three ways that medicines might harm you if used improperly.

Drugs and Medicines

If you feel a cold or cough coming on, you might head to the drugstore to buy medicine. Remember that a drug is a substance other than food that changes the structure or function of the body or mind. A **medicine** is a drug that prevents or cures an illness or eases its symptoms. Medicines can help your body in many ways. **Figure 11.10** on page 348 gives some examples.



Quick Write

Write about a time when you took medicine prescribed by a doctor because you were ill.

- ◀ You make important consumer choices when you buy medicine. How can choosing the wrong kind of medicine affect your health?

Types of Medicines

There are two main types of medicines: prescription medicines and over-the-counter medicines. A **prescription medicine** is a medicine that can be obtained legally only with a doctor's written permission. When you go to the doctor, he or she may order, or prescribe, medicine. Your doctor will write out instructions that explain how much medicine you should take and how often you should take it. You can fill this prescription at a pharmacy. A **pharmacist** is a person trained to prepare and distribute medicines. **Figure 11.11** shows a prescription medicine label.

An **over-the-counter (OTC) medicine** is a medicine that you can buy without a doctor's permission. Over-the-counter medicines are products found in grocery and drugstores. They commonly include pain relievers and cold medications. Always be careful when you use OTC medicines. Follow the directions on the label. If you have questions, contact your doctor or pharmacist. Both OTC and prescription medicines can cause serious problems if you don't use them properly.

 **Reading Check** Identify What is an OTC medicine?

▼ **FIGURE 11.10**

WHAT MEDICINES DO

Medicines keep people healthy in many ways. How can medicines contribute to good health?

Prevent disease. Medicines called vaccines protect against diseases that can spread from person to person. When you have been vaccinated, your body can make substances that will fight off the germs that cause a disease.

Relieve pain. Aspirin, ibuprofen, and acetaminophen are three types of medicines that help reduce pain and fever. Aspirin can also reduce swelling.

Kill germs. Medicines called antibiotics kill disease-causing bacteria. Antibiotics should be used with caution because improper use can lead to the development of antibiotic-resistant bacteria. If that happens, when you really need an antibiotic, it might not be able to stop an infection.

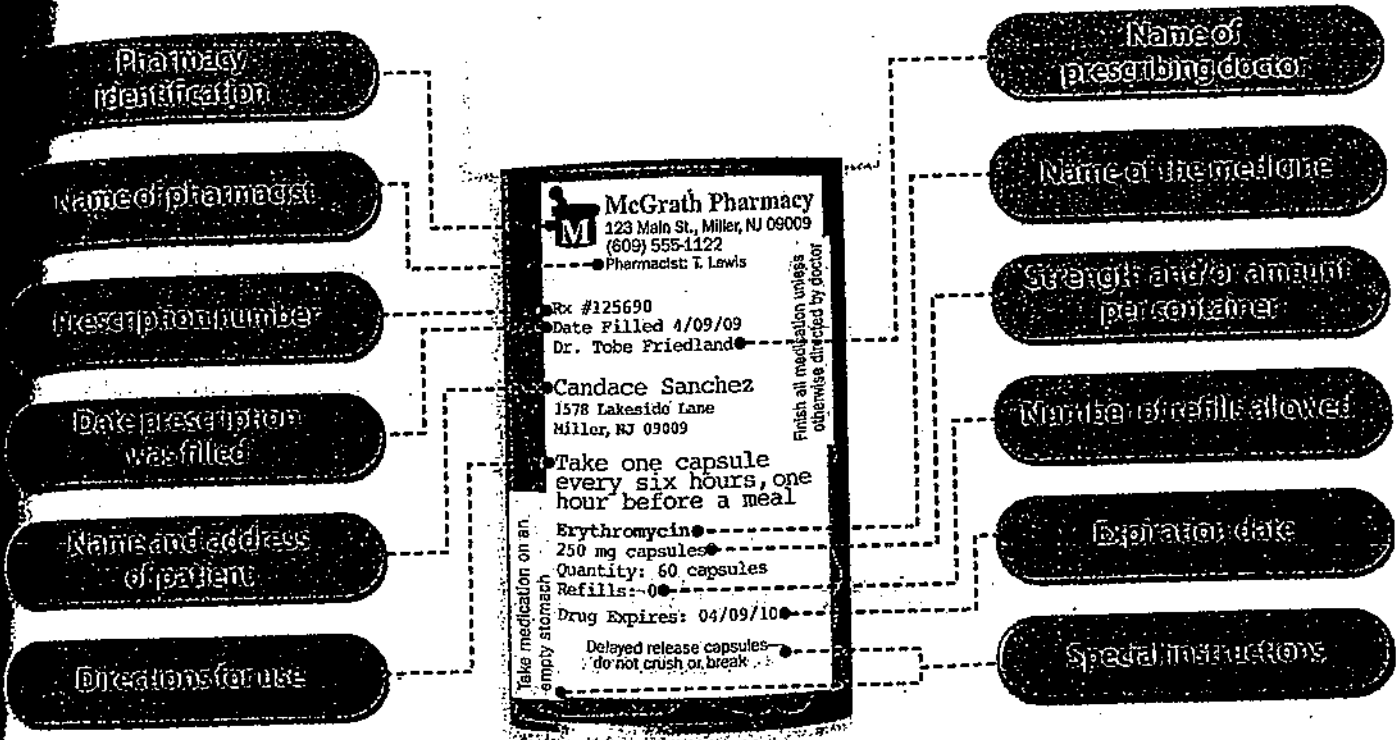
Treat conditions and diseases. Some conditions and diseases can be treated with medicines. For example, people with diabetes take insulin to control the disease. People with allergies can take antihistamines to treat allergy symptoms.



FIGURE 11.11

PRESCRIPTION MEDICINE LABEL

Your doctor or pharmacist can help you understand a prescription medicine label.
What types of information can you find on a prescription medicine label?



Guidelines for Safe Use of Medicines

Medicines can fight disease, but if you don't use them properly, they can hurt you. One way this happens is through side effects. A **side effect** is a reaction to a medicine other than the one intended. Some side effects are simply unpleasant. For example, a medicine might make you feel thirsty or sick to your stomach. A more serious side effect is an allergic reaction, which may require immediate medical attention from professional health services. Other side effects are dangerous because they might lead to injury. For example, medicines might make you sleepy or dizzy.

You can avoid some side effects if you follow the instructions from your doctor and pharmacist and always inform your doctor of any known allergies to medicines. Read the label on any kind of medicine you use. It explains when and how to take the medicine. Some medicines cannot be taken together. Also, some activities are dangerous when you take certain medicines. Ask your doctor or pharmacist if you don't understand the label.

Reading Check Identify Name one example of a side effect.

Health Skills Activity

Decision Making

Scheduling a Dosage

Jason is on summer vacation. He starts feeling sick, and his doctor prescribes medicine for him. The problem is that the medicine makes Jason feel sleepy and light-headed for a few hours after he takes it. The label on the bottle says these are common side effects. It warns patients not to use heavy machinery within four hours of taking the medication. It also suggests eating a small meal with every dose. Jason is supposed to take the medicine once a day. He usually mows lawns every day after lunch. He's worried about using the lawn mower while on the medication.

What Would You Do?

Apply the six steps of the decision-making process to Jason's problem to help him make a healthful choice.

1. State the situation.
2. List the options.
3. Weigh the possible outcomes.
4. Consider your values.
5. Make a decision and act on it.
6. Evaluate the decision.

Misuse and Abuse of Medicines

Medicines are drugs. If misused, they can be as harmful as illegal drugs. They can cause addiction, injury, and even death. If you misuse medicines when you're young, you can have health problems later in life. For example, your liver or kidneys might fail. Certain medicines can also be very dangerous to unborn babies, newborns, or young children. A woman who is pregnant or plans to become pregnant should talk to a doctor before she takes any medicine. **Figure 11.12** lists some ways to avoid problems when using medicines.



Reading Check

Compare How are medicines and illegal drugs similar?

◀ Some medications have to be taken at certain times of the day. How can you remember when to take a medication?

FIGURE 11.12

TIPS FOR USING MEDICINES CORRECTLY

You can use medicines properly by following these guidelines. What are some resources you can use if you do not understand how to take a medicine?

- Follow label instructions or directions from your doctor or pharmacist.
- Take the correct dosage or amount set by your doctor or pharmacist.
- Do not take the medicine for any length of time longer or shorter than your doctor tells you to. Even after you feel better, some medicines continue to work to prevent a second infection. If you don't feel well after you finish your medication, see your doctor.
- Do not take any medicine after the expiration date.
- Do not give your prescription medicines to other people or take other people's medications.
- Keep all medicines out of the reach of children.
- If you take too much medicine or have an allergic reaction to a medicine, see a doctor right away.

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

- Contrast** How do prescription medicines differ from over-the-counter medicines?
- Vocabulary** Define *side effect*.
- Give Examples** Name three ways you can avoid side effects.

Thinking Critically

- Analyze** A certain medication makes you feel dizzy and affects your balance. What activities should you avoid while you are taking that medicine?

- Apply** Latrice's doctor gave her a six-day prescription of an antibiotic for her sore throat. After only three days, all of her symptoms are gone. Should Latrice continue taking the antibiotic? Explain why or why not.

Applying Health Skills

- Refusal Skills** Min's friend has offered her some of her prescription medication just to try it out. What are some ways that Min could refuse the offer?



For more Lesson Review Activities, go to glencoe.com.

Choosing Health Care

Guide to Reading

● Building Vocabulary

Think about the terms *HMO*, *PPO*, and *POS*. Write the definitions of each term. Then rewrite the definitions to include the words that each of their abbreviations stands for.

- primary care provider (p. 353)
- specialist (p. 353)
- health insurance (p. 354)
- managed care plans (p. 354)
- health maintenance organization (HMO) (p. 354)
- preferred provider organization (PPO) (p. 355)
- point-of-service (POS) plan (p. 355)

● Focusing on the Main Ideas

In this lesson, you will be able to

- describe the goals of health care.
- identify the types of health care providers and facilities.
- explain the types of insurance that help pay for health care.

● Reading Strategy

Comparing and Contrasting As you read this lesson, make a chart to compare and contrast the three different types of managed care plans.

Quick Write

Imagine that you are choosing a health care specialist for an injury or disease. Make a list of questions you might ask him or her about your health.

The Goals of Health Care

What would you do if you got the flu or broke a bone while playing sports? You would visit a doctor. The doctor can help you feel better. He or she can also treat you to prevent further infection or injury.

The goals of health care are to prevent disease and injury as well as cure them. Visit a doctor once a year as part of your health care routine. During these visits, the doctor will examine you to see if you have any conditions that might lead to disease or injury. He or she might also talk to you about any problems that you may

- ▶ Patients often receive vaccines and other forms of preventive care from primary care providers. How does a primary care provider differ from a specialist?



have. You might talk about how well you sleep, or how nutritious your eating plan is. The doctor might ask you how much physical activity you get on a daily basis. During a checkup, you might also receive care to prevent disease. For example, you might get your vaccinations updated.

Health Care Providers

Doctors are not the only **professionals** who can help you care for your health. Pharmacists, nurses, health educators, counselors, mental health specialists, dentists, and nutritionists also provide health care services. Health care providers are any professionals who help prevent and treat injury and illness.

A **primary care provider** is a health care professional who provides checkups and general care. Examples of primary care providers include your family physician or a nurse practitioner. A primary care provider might send you to a specialist. A **specialist** is a health care professional trained to treat a special category of patients or specific health problems. **Figure 11.13** lists several specialists and their areas of specialty.

Academic Vocabulary

professional (pruh FESH uhn uhl) (*noun*) a person who trains for and practices a particular career. *John's dad is a business professional who helps companies create Web sites.*

Reading Check Name Give examples of three specialists and a problem that each one might treat.

▼ FIGURE 11.13

TYPES OF MEDICAL SPECIALISTS

There are many different kinds of medical specialists. What type of specialist would you see if you had blurred vision?

Below is a list of medical specialists and descriptions of their specialties.

| | |
|------------------|--|
| Allergists | treat people with allergies and asthma |
| Cardiologists | specialize in heart and circulatory system problems |
| Dermatologists | specialize in skin disorders |
| Gynecologists | specialize in problems of the female reproductive system |
| Ophthalmologists | specialize in disorders of the eye |
| Orthopedists | specialize in bone, joint, and muscle problems |
| Pediatricians | treat infants, children, and young teens |
| Plastic surgeons | perform plastic surgery to repair injuries or improve appearance |
| Psychiatrists | specialize in mental and emotional problems |
| Urologists | specialize in kidney, bladder, and urinary problems |
| Orthodontists | specialize in straightening the teeth |

- ▶ Health care professionals work to help people stay healthy. What are the goals of health care?



Health Care in Your Community

Where you go for health care depends on your individual needs. In your community, you'll find doctors, dentists, and other health care professionals. You will also find a range of other health services provided by the government or other community agencies. These include the public health department, fire department, police, family resource centers, hospitals, and pharmacies. Other resources include nonprofit organizations, such as the American Heart Association and the American Cancer Society.



Careers for the 21st Century

Pharmacists

Pharmacists fill prescriptions given to patients by their doctor or other health care professionals. They also provide information to patients on both prescription and over-the-counter medications. Pharmacists are now becoming more involved in talking to patients about their medications and making recommendations. You can start preparing for a career as a pharmacist by taking math and science classes.

What skills does a pharmacist need? Go to Career Corner at glencoe.com to find out.

Health Insurance

Health care can be very expensive, especially in the case of serious disease or injury. Health insurance can help pay for health care costs. **Health insurance** is a plan in which a person pays a set fee to an insurance company in return for the company's agreement to pay some or all medical expenses when needed. There are several different types of health insurance plans. Each one covers health-related expenses differently. It is important to learn about the types of health insurance plans available before choosing the one that is right for you.

Private Health Care Plans

Managed care plans are health insurance plans that emphasize preventative medicine and work to control the cost and maintain the quality of health care. These include the following. A **health maintenance organization (HMO)** is a health insurance plan that contracts with selected physicians and specialists to provide medical services. HMO members pay a fixed monthly rate.

Preferred provider organization (PPO) is a health insurance plan that allows its members to select a physician who participates in the plan for a reduced cost or to visit the physician of their choice. PPO members who use their own doctors must pay full price for services until a certain amount of money has been paid. A **point-of-service (POS) plan** is a health insurance plan that combines the features of HMOs and PPOs. Members can see participating physicians at a reduced cost or see nonparticipating physicians for a higher cost.

Government Public Health Care Programs

The government has passed health care laws at the federal, state, and local levels that protect people who use and deliver health care services. Public health departments regulate how clean restaurants and other businesses must be to operate safely. Some government programs provide health information to the community. Others offer free or low-cost health care.

Go Online

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. **Vocabulary** Define *primary care provider*.
2. **Identify** What kind of managed care plan offers a fixed monthly payment but limits which health care providers it covers?
3. **Give Examples** What kinds of services do government health care programs provide?

Thinking Critically

4. **Apply** How might seeing a health care provider for regular checkups keep a person's medical costs down?
5. **Analyze** Compare and contrast the similarities and differences of an HMO, PPO, and POS plan.

6. **Synthesize** How can understanding the coverage limits of different health care plans help you choose the best plan for yourself?
7. **Analyze** Why are community health resources and organizations important to healthful living?

Applying Health Skills

8. **Accessing Information** Charles and his family have moved to a new town. His parents have asked him to find out about health services in their community. What resources can Charles use to find out what health services are offered in his community?

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 1–9. After each number, write the term from the list that best completes each statement.

- consumer
- melanin
- advertisement
- acne
- astigmatism
- fraud
- fluoride
- tinnitus
- cataract

Lesson 1 Healthy Teeth, Skin, Hair, and Nails

1. _____ is a chemical that helps prevent tooth decay.
2. Skin gets its color from _____.
3. _____ is a skin condition caused by active oil glands that clog hair follicles.

Lesson 2 Healthy Eyes and Ears

4. An eye condition in which the lens becomes cloudy as a person ages is called _____.
5. _____ is an eye condition in which images of objects appear wavy or blurry.
6. A condition in which there is a constant ringing in the ears is called _____.

Lesson 3 Smart Consumer Choices

7. An infomercial is a type of _____ shown on television.
8. When an ad contains deliberate trickery, the advertisers are guilty of _____.
9. The rights to safety, to be informed, to choose, and to be heard are all _____ rights.

On a sheet of paper, write the numbers 10–15. Write **True** or **False** for each statement below. If the statement is false, change the underlined word or phrase to make it true.

Lesson 4 Using Medicines Safely

10. You must get a doctor's permission in order to take an OTC medicine.
11. A pharmacist is a person trained to prepare and dispense prescription medicines.
12. Drowsiness and nausea are examples of side effects that you could have from taking medicine.

Lesson 5 Choosing Health Care

13. A specialist is a health care professional who provides checkups and general care.
14. A cardiologist is a kind of health care specialist who treats eye disorders.
15. HMOs, PPOs, and POS plans are all types of managed care plans.

Applying Technology

Personal Health

Using Microsoft Word®, create a poster to showcase the variety of choices available to help foster good personal hygiene.

- Open a new Microsoft Word® project with a landscape view and insert a table with 2 columns and 6 rows.
- Add the captions: *Teeth, Skin, Hair, Eyes, and Ears*, by clicking Insert- Picture- WordArt. Adjust the caption font size to 16 and drag them to the top of your poster.
- Using either Clip Art or digital media files, insert an image for each section of your poster. Highlight the image and drag the corner toward the center to size.
- Place your cursor in the box and add details under each caption on how to care for that part of your personal health.
- To remove outside lines of the table, click on Toolbar view-Formatting-Tables and charts. Then select the border button that reflects the desired highlighting: grid outside, grid all boxes, or no grid at all.

Thinking Critically

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

16. **Interpret** How do government requirements for drug labels protect your consumer rights?
17. **Apply** A prescription medicine causes Damien to feel nauseated. What should Damien do?

Write About It

18. **Descriptive Writing** A new brand of underarm deodorant causes your skin to break out in a rash. Write a detailed plan you could follow to help you find the cause of the rash.
19. **Expository Writing** Write a letter to your friend who has just moved to a new town. Describe how your friend might get information to help him or her choose a new primary care physician.

Standardized Test Practice

Writing

Read the prompts below. On a separate sheet of paper, write an essay that addresses each prompt. Use information from the chapter to support your writing.

1. A person is experiencing deafness due to problems with his inner ear. Explain how a person with healthy ears is able to hear. Be sure to describe the role that hair cells play in hearing. Then, predict how damage to hair cells could cause deafness.
2. Imagine that you have a company that makes sunscreen. How would you convince buyers to

choose your product? Write a script for a television or radio advertisement that sells your product. What health concerns could you address in your advertising?

TEST-TAKING TIP

Find out how much time you have to write your essay. Plan to spend part of that time at the beginning of the test organizing your thoughts and writing a rough outline. Plan to spend another part of that time at the end revising your essay and checking for errors in spelling and grammar.