

Chapter 15**Vocabulary**

axial skeleton
 appendicular skeleton
 cartilage
 ossification
 ligament
 tendon
 osteoporosis
 scoliosis

repetitive motion injury
 smooth muscles
 skeletal muscles
 flexors
 extensors
 cardiac muscle
 muscle tone
 tendonitis

hernia
 neurons
 cerebrum
 cerebellum
 brain stem
 reflex
 epilepsy
 cerebral palsy

Directions: Many of the words in the list above are related in some way. Look at the headings below. Then list the vocabulary words that fit under each heading.

Types of Muscles	Parts of the Brain	Disorders of the Nervous System	Problems of the Muscular System

Activity 54**Applying Health Skills**

FOR USE WITH CHAPTER 15, LESSON 1

Fabulous Functions

Directions: The skeletal system serves five main functions in the human body. You have learned about these functions while reading the lesson. Read the paragraphs below. Which functions of the skeletal system are being discussed? On the spaces provided, list the function(s) of the human skeletal system that is(are) discussed in the paragraph.

1. Julie and her mom spent Saturday shopping. As they walked around the mall, they saw several friends and neighbors. At 3:00, Julie's mom mentioned they needed to leave so she would have time to take Julie home before she went to donate blood at the Red Cross.
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2. Tia and Keyona are members of the track team. Both girls enjoy running the 100-meter dash. After practice they enjoy sitting down for dinner together at the sandwich shop.
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3. Jeremy's dad fell while playing hockey. He was wearing his pads, but he still got pretty banged up. Some of his bruises were terrible! Luckily, he didn't receive any major injuries and was back to work two days later.
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Activity 55**Applying Health Skills**

FOR USE WITH CHAPTER 15, LESSON 2

Physician's Assistant

Directions: The waiting room at the doctor's office is full. Can you assist the doctor? Review the notes below. For each patient, decide on a possible diagnosis. Then, suggest a treatment for the patient.

1. Juan, an office worker who does a lot of computer work, complains of tingling, pain, and weakness in his hands.

Diagnosis: _____

Treatment: _____

2. Stephanie, a sixth grade student, has been brought in by her mother. Stephanie's mother reports that Stephanie doesn't seem to stand up straight, in fact, one of Stephanie's shoulders appears to be higher than the other.

Diagnosis: _____

Treatment: _____

3. Maria limped in after a tennis match. She had twisted her knee and is complaining of severe pain. She's sure that the injury occurred while she was playing tennis.

Diagnosis: _____

Treatment: _____

Activity 56**Applying Health Skills**

FOR USE WITH CHAPTER 15, LESSON 3

Strong Words

Directions: Imagine that the muscles in your body wanted to advertise their importance and their specific function in the body. What slogans might an advertising agency develop to “advertise” each of the three types of muscles in the human body? In the spaces below, help the advertising agency develop three slogans for each muscle type. Be creative, but make sure the slogans accurately describe the type of muscle or its function.

1. Cardiac Muscle

2. Skeletal Muscle

3. Smooth Muscle

Activity 57**Applying Health Skills**

FOR USE WITH CHAPTER 15, LESSON 4

Act on Impulse

Directions: Imagine that the nerve impulses in your body kept a travel journal. What would they describe? What “sites” would they see as they travel through your body? What destinations do they visit? On what type of neuron do they travel? Read the two situations below. Then, write a travel journal for the nerve impulses involved.

1. Latasha’s hand comes in contact with the hot stove, then quickly jerks away.

2. Marcos is backstage at the piano recital, waiting for his turn to perform. His heart is beating quickly, and he is breathing rapidly.

Activity 58**Applying Health Skills**

FOR USE WITH CHAPTER 15, LESSON 5

Poster Project

Directions: Paul and Michelle have decided to do a health-education project for middle school. As a part of their project they are making posters that illustrate ways to keep the nervous system healthy and protected from injury. Each poster will have a specific topic, an illustration, and a slogan. Help Paul and Michelle develop slogans for the following posters. Make sure the slogan tells how to protect the health of the nervous system in a catchy way. Make sure the slogans are short enough to fit on a poster.

Poster 1: Topic—Horseback Riding

Poster 2: Topic—Riding in a Car

Poster 3: Topic—In-Line Skating

Poster 4: Topic—Diving

Poster 5: Topic—Bike Riding

Poster 6: Topic—Playing Football

Poster 7: Topic—Playing Hockey

Poster 8: Topic—Hanging Out with Friends

Chapter 15

Study Guide

- STUDY TIPS:**
- Read *You'll Learn To* for each lesson.
 - Look up the meaning of any unfamiliar vocabulary terms.
 - Read the questions below before you read the chapter.

Directions: As you read the chapter, answer the following questions. Later, you can use this guide to review the information in the chapter.

Lesson 1

1. Name five functions of the skeletal system.

2. Identify four types of bones, and give an example of each.

3. Define *ossification*.

Lesson 2

4. Describe three ways to care for your skeletal system.

5. Identify and describe two types of injuries to joints.

6. Define *carpal tunnel syndrome*. What type of injury is it?

Lesson 3

7. Identify one body function performed by muscles under involuntary control.

Study Guide, Chapter 15 (Continued)

8. Identify and describe the three types of muscles.

9. Describe muscle strain and muscular dystrophy.

10. Define *tendonitis*.

Lesson 4

11. What is the function of sensory neurons?

12. Identify the two organs that make up the central nervous system.

13. What is the function of the sympathetic nervous system?

Lesson 5

14. Name three ways to avoid injury to the nervous system.

15. Name and describe two types of head injuries.

16. Describe *cerebral palsy*.
