

## Lesson 4

# Sports Conditioning and Avoiding Injury

## Guide to Reading

### ● Building Vocabulary

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

- conditioning (p. 222)
- PRICE formula (p. 224)
- dehydration (p. 225)
- heat exhaustion (p. 225)

### ● Focusing on the Main Ideas

In this lesson, you will learn to

- **describe** the benefits of conditioning.
- **develop** nutrition habits for athletes.
- **identify** ways of minimizing injury risks during sports or activities.
- **show** how to treat sports-related injuries.

### ● Reading Strategy

**Identifying Problems and Solutions** As you read the lesson, identify injuries described and ways of dealing with each.

## Sports Conditioning

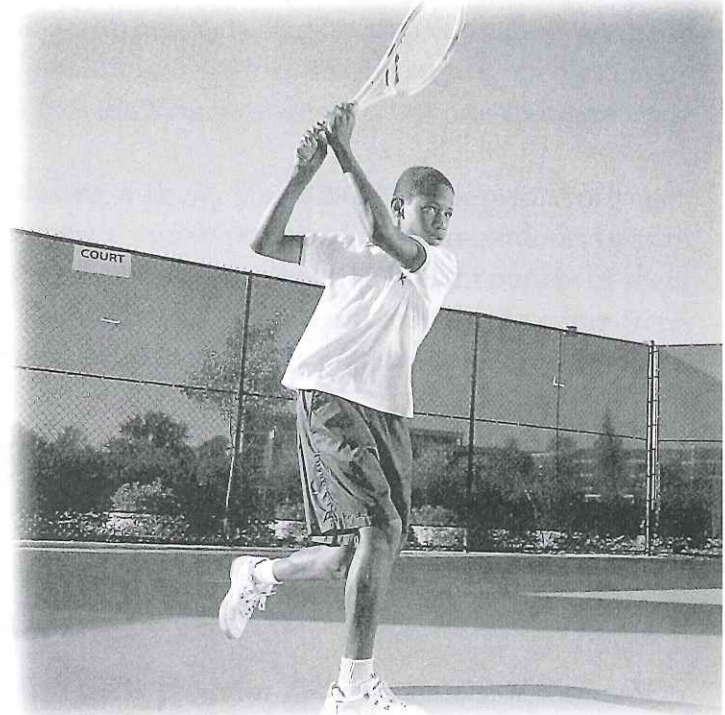
Standing behind the center, Evan barked signals. Everyone in the stands sat silently, breathlessly watching. There was one second left on the clock, time for one last play. North High was down by four points. The game—and season—was on the line.

“Hut! Hut! *Hut!*” Evan called. He took the snap from the center and moved back in the pocket. Out of the corner of his eye he saw a large linebacker barreling toward him from the right. Evan scrambled left and threw the ball as he skillfully dodged the tackler. Time seemed to stand still as the ball floated down-field. It fell gracefully into the hands of Evan’s target. “Touchdown!” the official shouted. The North High fans went wild. “Evan!” they cheered. “Evan! Evan! Evan!”

- Proper conditioning will strengthen your muscles so you can play your best when you compete. **What type of conditioning exercises do you think the tennis player in this picture practices?**

## Quick Write

Describe an injury you had while playing a physical game or sport. Tell how this injury was treated.





▲ Drinking water before and during a game is a good sports nutrition habit. **What is another?**

Playing a sport can seem glamorous, especially when you are a star quarterback. It is also a fun way to make physical activity part of your life. Playing a sport involves much more than showing up for games, however. Athletes devote many hours off the field to physical **conditioning**, *a regular activity and exercise that prepares a person for a sport*. Some conditioning takes place right before a game. Baseball players, for example, practice batting and fielding. Basketball play-

ers do passing drills and take practice shots from different spots of the court. Conditioning may also include weight training and other exercises. Additionally, maintaining a healthy diet and getting enough rest are important aspects of conditioning.

### Reading Check

**Identify** Besides practice and exercise, what are two conditioning practices every athlete should follow?

## Sports Nutrition

Everyone needs proper nutrition. The term *nutrition* refers to a person's eating habits. For athletes, good nutrition includes following specific guidelines on and off the field.

One common guideline is to eat carbohydrates before a game or event. Whole-grain products, fruits, and vegetables are good energy sources. Avoid foods high in simple sugars, such as candy bars. These will provide a burst of energy, but one that lasts only briefly.

Before and during a game, you should drink plenty of water. Your body loses water through perspiration, even outdoors in winter. Health authorities advise drinking at least eight ounces of water before a game. Then take sips periodically during the game to replenish your fluids. Drinking water is important for any strenuous workout.

### Reading Check

**Give Examples** Name specific foods that athletes might eat before a game for added energy.

## Minimizing Risk

Whether your fitness program includes sports or some *other* activity, safety should be your first concern. You have already

## DEVELOPING Good Character

### Being a Team Player

When you play a team sport, you owe it to your team to be your best. Being your best means showing up, and on time, for practice. It means following team rules on and off the playing field. In what ways is being a good team player important even if you do not play a sport?

learned some guidelines for minimizing the risk of an activity-related injury. These guidelines include progressing gradually, warming up, and cooling down. Other guidelines include using the right equipment and knowing your limits.

## Proper Gear

In sports, proper gear starts with equipment used in your game. For some team sports, you wear cleats. These are shoes with spikes on the bottom that grip the ground and provide traction. Whatever shoes you wear should be suitable to your activity or game. Shoes should also fit properly, feel comfortable, and provide adequate support.

For games played in bright sunlight, a good pair of sunglasses is more than a fashion statement. It is a necessity. Choose shatterproof glasses with lenses that offer UV protection. UV protection will shield your eyes from the same harsh rays that cause sunburns on unprotected skin.

Other protective gear includes athletic supporters, knee pads, elbow pads, and helmets. Specific needs and equipment will depend on your activity or sport. You want to be sure to choose the appropriate gear in order to reduce your risk of injury.

For non-sports activities, wear clothing that is loose-fitting or stretchable. This type of clothing will give you freedom of movement and help you stay cool in warm weather. In cool weather, dress in layers to trap warm air against your body.

## Know Your Limits

As Rod stood in his outfield position, his shoulder hurt from where a ball had struck it earlier. The game was important, however, so Rod decided to play through the pain. When Rod learned later that he had separated his shoulder, he felt bad in more than one way. He would be on the bench for the rest of the baseball season.

Do not make the same mistake Rod did. Learn to listen to your body whether you play a sport or exercise. If someone tells you "No pain, no gain," do not believe them. Pain is your body's way of telling you to slow down or stop, if you have been injured. If you experience pain, you should take the appropriate health care measure to protect yourself from further injury.

▼ You should remember to use appropriate athletic gear. **What are some features to consider when buying shoes for a sport or physical activity?**



## Treating Injuries

Sometimes even when you are cautious, injuries can occur, especially when you are playing *contact sports*. This term is used for any sport where physical contact between players is normal. Football, hockey, and boxing are examples of contact sports.

Even if you are not injured through contact, you might experience muscle soreness. When a muscle stiffens or aches, the **PRICE formula** will provide some relief. The letters stand for *Protect, Rest, Ice, Compress, and Elevate*. Apply the following treatment as soon as possible after the game, event, or activity:

- **Protect** the injured part from further injury by keeping it still. Try not to move it too much. Moving it may make the pain worse.
- **Rest** the injured part.
- **Ice** the part using an ice pack.
- **Compress**, or put pressure on, the part using an elastic bandage. This will keep the injury from swelling. It will also help keep that part of your body motionless. Just be careful not to wrap the bandage too tightly. This could cut off the flow of blood.
- **Elevate** the injured part above the level of the heart.

### Reading Check

**Explain** What do the letters in the PRICE formula stand for?

## Weather-Related Injuries

Some sports and activities, such as ice hockey, skiing, and ice skating, are done in cold weather. Other activities tend to be played

- Treat an injury such as muscle soreness as soon as possible after it occurs. Which steps in the PRICE formula is this teen demonstrating?



in hot weather. Temperatures at both extremes pose a health risk to the body. You should follow practices that will reduce your risk of injury.

When the temperature rises in the summer, so does your body's. You perspire more, which is your body's way of cooling you down. If you are not careful to replace this lost water, you risk **dehydration**. This *condition caused by excessive water loss* can lead to other, more serious health problems. One of these is **heat exhaustion**—*an overheating of the body that can result from dehydration*. People with heat exhaustion often feel dizzy and have a headache. Their skin feels clammy when touched. Anyone who shows the symptoms of heat exhaustion needs to be taken to a cool, shady spot. The person should receive plenty of fluids. If the symptoms do not go away, call for help immediately.

Cold weather can bring its own share of problems, including frostbite and hypothermia. Chapter 20 will discuss weather-related risks in further detail.

### Reading Check

Define What is *dehydration*?

### Health Online

Visit [health.glencoe.com](http://health.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. **Vocabulary** What is *conditioning*? What are some specific practices that are part of conditioning for most sports?
2. **Identify** Name two ways to minimize the risk of injury during sports or activities.
3. **Recall** What type of treatment is used for an exercise-related or sport-related injury such as muscle soreness?

#### Thinking Critically

4. **Analyze** Mel has tried on several pairs of cleats. The only pair he thinks look good on him are a size too small. He plans to buy the shoes anyway. How could you help Mel make a healthful decision if you were the salesperson?

5. **Apply** Angela has one more lap to run around the track to finish her routine for the day. She is feeling light-headed and dizzy. What steps would you take to help Angela if you were there at the track?

#### Applying Health Skills

6. **Communication Skills** Working with a small group, develop a public service announcement for teens. Your announcement should communicate ways to avoid injury and minimize other risks while being physically active.