Lesson 5

Weight Training and Sports

Guide to Reading

- **Building Vocabulary**
  As you read this lesson, write down each new highlighted term and its definition.
  - dehydration (p. 88)
  - anabolic steroids (p. 88)
  - conditioning (p. 90)
  - overworking (p. 90)

- **Focusing on the Main Ideas**
  In this lesson, you will be able to
  - recognize the benefits of weight training.
  - discuss the advantages of individual and team sports.
  - describe various kinds of protective gear for sports.
  - identify eating habits that can improve athletic performance.
  - recognize why it is harmful to take drugs or supplements to improve sports performance.
  - practice mental conditioning for sports.

- **Reading Strategy**
  **Predicting** Look over the headings in this lesson. Then write a question that you think the lesson will answer. After reading, check to see if your question was answered.

Quick Write

Have you ever felt sore the day after you tried a new physical activity? Explain in a few sentences why you think this happened.

Weight Training Basics

Weight training is a form of resistance training, which means that muscles must resist a force, such as gravity. Weight training does more than make you stronger. It also tones muscles, strengthens bones, and helps you manage your weight.

Learn how to use weights correctly. If you are just getting started, get help from a coach or physical education teacher. He or she can help design a program that fits your needs. Light weights or resistance bands, which look like large rubber bands, work best for beginners. Most people should wait until they are at least 15 years old or until their bodies are mature before trying to lift heavy weights.

This teen includes weight training as part of a fitness program. What other types of activities should go into an overall fitness plan?
If you want to succeed at fitness, start by setting a goal. Training for a particular sport might be different from training for overall fitness. You might want to concentrate part of your fitness training on lifting weights. If you do, be sure to lift the proper amount of weight. Try several different weights. A weight that tires your muscles after 10 to 12 repeated moves is about right. You only need to do one set to the point of muscle fatigue in order to benefit. When lifting that amount of weight becomes easy, you can move on to heavier weights. Always rest at least one full day between training days.

You might have heard that females who train with weights will develop large muscles. This is not true. Sports such as gymnastics and ice skating take a lot of strength. Lifting weights can help females build the strength to participate in sports and other physical activities they enjoy.

**Sports for Fun and Wellness**

Sports offer a great way to get fit. Some people are serious about sports and work hard to develop their skills. Others participate just for fun. Either way, participating in a sport is a positive health behavior that can help you increase your level of fitness. Muscular strength and endurance, flexibility, and body composition may also improve. Being fit can help you prevent health problems.

You'll get the most out of a sport that you enjoy. Take a moment to think about what sports you like the most. Do you like the excitement of competition? Do you like the challenge of mastering a skill? Even if you are not confident in your abilities, remember that practice will help you improve your skills and achieve consistency in sports or other physical activities.

![Image of students signing up for sports](image-url)
What Sports Type Are You?

There are plenty of individual sports to enjoy. For example you can swim, run, bike, hike, ski, surf, golf, play tennis, and horseback ride. You can do these sorts of activities by yourself or with others, whether or not you are part of a team. If you play individual sports, you can probably set your own schedule and pace. Unless you compete, you don’t have to be compared to anyone else.

Volleyball, soccer, baseball, basketball, and field hockey are just a few popular team sports. Team sports are usually organized and have set rules. When playing a team sport, remember that not everyone on the team has the same level of skill. Show respect for individual differences. Encourage those with diverse backgrounds and abilities to join your team. Be sensitive to the feelings of others and don’t criticize or put others down. Play fair, show good sportsmanship, and encourage each other. This will help you and your teammates have fun and get along better.

Reading Check: Compare and Contrast How do individual sports differ from team sports?

Gearing Up for Sports

Protective gear is personal equipment you wear so you don’t get injured. The type of protective gear you wear depends on the sport you play. Some sports, such as track, require special shoes to give you traction and support. Other sports, especially contact sports, require a helmet and elbow, knee, and shin protection. Males who play contact sports also need to wear an athletic cup to protect the groin area. Figure 3.12 shows some important kinds of protective gear.

Reading Check: List Name two pieces of equipment needed by teens who participate in contact sports.

Both team sports and individual sports have benefits. What are some benefits of each?


**FIGURE 3.12**

**Protective Equipment for Sports**

There are different pieces of protective gear for different sports. **Which sports might require the use of some of the equipment pictured here?**

- **Mouth guards.** These soft plastic shields protect your mouth, teeth, and tongue. Wear one for any sport where your mouth could be hit. Examples include baseball, football, and hockey. If you wear a retainer, take it out before you play.

- **Face and throat protection.** A face mask with a throat guard protects the face and throat from being hit by a ball or puck.

- **Helmets.** Always choose a helmet made for the sport you’re playing. It should fit snugly but comfortably on your head. Be sure it doesn’t tilt backward or forward. Never wear a cap under a helmet.

- **Chest Protectors.** A padded chest protector keeps the torso from being injured in sports such as baseball.

- **Pads.** Pads are used to protect bones and joints from fractures and bruises.

- **Elbow, knee, wrist, and shin guards.** Elbow and wrist guards can prevent arm and wrist fractures. Knee and shin guards can protect these areas during falls.

**Eating Right for Sports**

Your body burns a lot of energy when you play sports. You want to eat foods that provide the best fuel for your body. This may mean changing what and when you eat.

**What You Eat**

To get enough fuel for energy, eat a variety of foods each day. Follow guidelines for eating food from the major food groups. This will provide you with the nutrients and energy you need. If you play high-energy sports for long periods of time, you may need to eat more food. You will learn more about nutrition in Chapter 4.
The harder you play, the more you sweat! If you don’t replace the water you lose, dehydration occurs. **Dehydration** is the excessive loss of water from the body. It can cause muscle cramps and heatstroke. It can harm body systems. Drink water before, during, and after you play a sport. Don’t wait until you’re thirsty.

**When You Eat**

You know you have to eat right to enjoy physical activities. Did you know that *when* you eat is as important as *what* you eat? Here are some Do’s and Don’ts to remember.

- Don’t eat a heavy meal right before physical activity. Instead, eat a light snack one or two hours before. An apple, banana, glass of fruit juice, or a bagel are all good snack choices.
- Do drink enough fluids before you play. In general, drink about two cups (16 ounces) of water about two hours before. Then drink another two cups about 15 minutes before.
- Do drink water during the activity. Water helps control your body temperature and cools your muscles.
- Do drink water and other fluids after you play. Keep track of your weight before and after the event. For every pound lost, drink 2 cups of water.
- Don’t forget to refuel. After the activity, eat a hearty, balanced meal.

**Avoiding Dangerous Substances**

Athletes may be tempted to try substances to boost performance. Many of these substances are illegal and dangerous. Some harmful effects appear right away. Others show up later in life. Using these substances is a risk factor for many health problems. **Anabolic steroids** (a-nuh-BAH-lik STAIR-oydz) are substances that cause muscle tissue to develop at an abnormally high rate. Steroids do have approved medical uses. Using steroids to improve athletic performance, however, is illegal.

Steroids can block teens’ normal growth and development. They weaken tendons and bones, which may break more easily. Steroids can cause heart rate and blood pressure to become irregular. The risk of heart attack increases, as does the risk for brain and liver cancer. Acne is another common side effect. Steroid use can even cause changes in sexual characteristics. Females may grow facial hair. Males may develop breasts. Users may suffer from depression, irritability, anxiety, mistrust, mood swings, or sudden rage.
Health Skills Activity

Practicing Healthful Behaviors

Mental Conditioning for Sports
Have you ever heard a sports figure say he or she was “in the zone”? This means that the mind and body are working together. Being in the zone is part of being successful at many sports. You are calm yet full of energy, challenged yet confident, focused yet able to trust your body’s responses. Training your mind helps you get in the zone. It also helps you manage stress and use your abilities more effectively. Here are some tips that might help.

- Relax. Focus on enjoying the game, and don’t worry about what might go wrong.
- Picture yourself doing everything correctly and with skill.
- Set some goals that relate to your personal best. They should have nothing to do with whether you win or lose a game.
- Think positively. Telling yourself “Don’t miss that shot!” makes you freeze up. Instead, tell yourself, “I’m going to do well.”

On Your Own
Think of a skill you would like to improve. Find a quiet spot, close your eyes, and picture yourself performing that skill correctly. Repeat this several times. Then perform the skill.

Some athletes have used a number of other substances to aid performance. Creatine is a compound naturally produced in the body and used by the body for short bursts of power. However, there is no proof that taking a creatine supplement improves sports performance. Creatine products can hurt your heart, kidneys, and liver. Other side effects include diarrhea, nausea, vomiting, and cramps.

Stimulants such as caffeine can make you feel more alert. They do so by making your central nervous system work harder. Your heart rate and blood pressure go up as a result. Stimulants have side effects that may actually hurt performance. They can make you nervous and crabby. You may have trouble concentrating. Even worse, you can develop an abnormal heart rhythm or other problems. Caffeine is not only in coffee and tea but also in some kinds of soda and sports drinks. Chocolate also contains a small amount of caffeine, although not as much as caffeinated drinks.

Reading Check
Restate What are anabolic steroids?
Safety in Training

Training to get into shape for physical activity or a sport is called conditioning. Different activities require different types of conditioning. A speed skater, for example, needs strength, flexibility, and muscle endurance. Every conditioning program should be personalized to the individual. Age, body weight, and physical health should be factors when you begin a conditioning program. A long-distance runner needs cardiovascular endurance. An athlete also needs the right mental attitude to master his or her chosen sport. If you want to take part in a sport, have someone trained in sports suggest training exercises for the mental as well as the physical conditioning that is important for your sport.

Conditioning is good for you. However, too much of it can be harmful. Overworking means conditioning too hard or too often without enough rest between sessions. How do you know you are overworking? You might have an elevated resting heart rate. You might have trouble sleeping or get sick a lot. You may hurt the muscles you’re trying to condition. Avoid overworking by taking a day off from conditioning every week. Switch off between heavy workouts and light ones.

Reading Check

Define What is overworking?

Lesson 5 Review

After You Read

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

What I Learned

1. **Restate** What are the benefits of weight training?

2. **Identify** Name several advantages to playing team sports.

3. **Explain** Why should athletes eat a variety of foods each day?

4. **Vocabulary** Define conditioning.

Thinking Critically

5. **Infer** Why do you think you should avoid eating a heavy meal before playing sports?

6. **Predict** How might playing a sport throughout your life benefit your health?

Applying Health Skills

7. **Advocacy** Create a comic strip or write a short story that will encourage teens to eat right for sports.