Tips for Injury Prevention

One way you know you've had a good workout is by what you feel. Your body feels pleasantly tired. You feel mentally energized and confident. You also know you've had a good workout because of what you don't feel. You don't feel hurt, dizzy, or sick to your stomach. Be smart and protect yourself when you exercise. Practice these injury-prevention strategies to maintain your personal health.

- Visit your doctor before you sign up for a sport.
- Be sure you're in good physical shape before you participate. Take some time to build endurance, strength, and flexibility.

► Be sure you read and understand the safety rules before you play or work out. Why do you think it's important to report any injury to your coach or teacher and your parents or guardians?
Physical Therapist

Physical therapists work with people who are suffering from injuries or disease. They teach exercises and activities to relieve pain or improve function and movement. You can prepare for a career as a physical therapist by taking basic science classes, such as biology, chemistry, and physics.

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

Physical activity injuries are a common cause of injury during the teen years. **How can you prevent injuries related to physical activity?**

- Do not try activities that are beyond your ability. Start slow and develop your abilities at a safe pace.
- Use the proper safety and protective equipment. See Chapter 15 for more information.
- Follow all safety rules during play and workouts.
- Warm up and do some light stretches before you begin.
- Cool down and stretch again after you finish your workout.
- Report any injury to your coach or teacher and to your parents or guardians.
- After an injury, don't return to playing sports or working out until a medical provider says you are well enough.

**Reading Check**
**Restate** Name two tips for injury prevention.

**Common Injuries**

Sports and recreational activities are a major cause of injury to teens. They are second only to car crashes. Positive health practices such as wearing the proper safety equipment can help prevent injuries. Some injuries, such as sore muscles, are considered minor. Others, such as bone injuries, are considered major.

**Minor Injuries**

Sore muscles are common when you are just beginning to work out or are trying a new activity. The soreness results from tiny tears in the muscle fibers. These injuries heal quickly. You can reduce or prevent soreness if you warm up, stretch, and cool down properly. Also, if you're not used to an activity, start slowly. A muscle cramp is a pain caused by sudden tightening of the muscle. Muscles become cramped when they are overworked or dehydrated. Massaging and stretching the muscle can ease cramps. So can drinking water or specialty sports drinks.

Some injuries happen due to overwork. They include strains, sprains, and tendinitis. A strain is damage to a tendon or muscle from overstretching. A **sprain** is an injury to the ligament connecting bones at a joint. Sprains occur when a ligament is torn or stretched too far. Both strains and sprains can result in pain and swelling. Severe sprains need medical care. **Tendinitis** is painful inflammation and swelling of a tendon caused by overuse. Treatment often involves rest, medicine to reduce inflammation, and physical therapy. Proper warm-ups and stretches can reduce the risk of strains, sprains, and tendinitis.
Health Skills Activity

Decision Making

Taking Safety Seriously
Brian wants to get into bike racing. His parents bought him a bike for his birthday. They also bought a helmet, kneepads, and gloves. Brian read the instruction booklet for his bike. The booklet says that he should wear the safety equipment every time he rides. That's not what his friend Kevin says, though. Kevin says that Brian doesn't need to wear all that stuff if he's not actually racing. Brian wants to be safe, but he's wondering if Kevin is right. Brian must decide whether or not to follow the booklet's advice about wearing safety gear while bike racing.

What Would You Do?
Apply the six steps of the decision-making process to Brian's situation.
1. State the situation.
2. List the options.
3. Weigh the possible outcomes.
4. Consider your values.
5. Make a decision, and act.
6. Evaluate the decision.

Explain to the class how you arrived at your decision.

Major Injuries

A major injury is one that requires professional health services. A major injury often causes great pain. It may also cause numbness or make you feel dizzy.

A dislocation is a major injury that happens when a bone is forced from its normal position within a joint. Sometimes you may hear a popping noise at the same time. A doctor must push the bone back into position. The joint cannot be moved again until the tissues heal. A cast or sling over the joint holds it safely in place.

A fracture is a break in a bone. Sometimes you hear a cracking noise as the bone breaks. Fractures are often painful and may cause swelling. The bone has to be set by a doctor and may require a cast. The cast holds the bone in place until it heals. A stress fracture is a small fracture caused by repeated strain on a bone. For example, long-distance running could lead to a stress fracture. These fractures may be no more than a hairline crack and are usually less severe than other fractures.
A concussion is a brain injury. It often results from a blow to the head. A concussion can cause swelling of the brain and even death. The person may feel dizzy or confused. Other signs include headache, loss of memory, or unconsciousness. Wearing a helmet is the best safeguard against concussions and other head injuries. It is always important to seek out professional health services if there is any possibility of a concussion.

**Other Health Problems**

Overworking your body can make you feel dizzy and out of breath. Know your limits and strategies for maintaining your personal health. Take breaks, especially during hot weather. Drink plenty of water and other fluids. Your body can overheat, which may lead to heat exhaustion or heatstroke. During heat exhaustion, a person’s skin becomes cold and clammy. He or she may feel dizzy or nauseated. During heatstroke, a person’s body temperature suddenly increases. He or she has trouble breathing and may collapse. Heatstroke can be deadly. If you think someone has it, get medical help right away.

If a person’s body gets cold enough, its core temperature can drop dangerously low. Body systems begin to shut down. This condition is called hypothermia. A person with hypothermia may become confused and clumsy. Your body shivers when it needs heat. When this happens, warm yourself up. Get indoors. Wrap yourself in a blanket, or put on warmer clothes. Have a hot drink.

Skin can develop frostbite if it’s exposed to severe cold and tissues freeze. Early signs of frostbite include whitening of the skin and a lack of feeling. If you think you have frostbite, get indoors right away and warm the exposed area with warm, not hot, water. Then get medical help.

A sunburn makes the skin red and sore, and it might even blister. Stay out of the sun during midday hours, when the sun’s rays are strongest. Use a sunscreen with a sun protection factor (SPF) of at least 15. Put it on half an hour before you go outside. Cover your skin as much as possible before going outdoors, and wear a hat. Also wear sunglasses, because the sun’s rays can hurt your eyes.

**Reading Check** Identify What are the symptoms of heat exhaustion?
The P.R.I.C.E. Procedure

Sometimes, even when you're careful, you get hurt anyway. A tough game or workout can leave you with scrapes and bruises. It can also leave you with aching muscles. When a muscle is stiff or feels painful, remember the word P.R.I.C.E. The letters stand for protect, rest, ice, compress, and elevate. The sooner the treatment is applied, the better. You should:

- Protect the injured part from further injury by keeping it still. 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 a stretchy 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, which can cut off blood flow.
- Elevate the injured part above the level of the heart.

Remember to report any injury right away to a coach or teacher and your parents or guardians. They can decide if the injury needs the attention of professional health services.

Lesson 6 Review

After You Read

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

What I Learned

1. **Vocabulary** Define sprain.

2. **Identify** What is frostbite? How is it treated?

3. **Explain** How can the P.R.I.C.E. procedure be used to treat minor injuries?

4. **Describe** What happens to your body during heatstroke?

Thinking Critically

5. **Infer** How would being in a cast for several weeks affect the muscles of a broken leg?

6. **Explain** Why is being in good physical condition before playing a sport an effective injury-prevention strategy?

Applying Health Skills

7. **Accessing Information** Use reliable print or online resources to find a news article about an athletic injury. Write a short summary of the article. Suggest ways the injury might have been prevented.