Chapter Objectives

After studying this chapter, you will be able to

- **describe** the causes of accidents on the job.
- **describe** how the costs of accidents can affect you, the employer, and the economy.
- **identify** safety procedures workers can follow to avoid and prevent accidents.
- **define** workplace violence and describe possible steps for prevention.
- **explain** what the Occupational Safety and Health Administration, Environmental Protection Agency, and Centers for Disease Control and Prevention do to protect people’s health and safety.

Key Terms

environmental hazards  
safety-conscious  
ergonomics  
disability  
workers’ compensation  
flammable  
National Safety Council  
first aid  
tourniquet  
universal precautions  
workplace violence  
Occupational Safety and Health Administration (OSHA)  
citation  
material safety data sheet (MSDS)  
Environmental Protection Agency (EPA)  
Centers for Disease Control and Prevention (CDC)  
National Institute for Occupational Safety and Health (NIOSH)

Reading Advantage

Imagine you are a business owner and have several employees working for you. As you read the chapter, think about what you would like your employees to know. When you finish reading, write a memo to your employees and include key information from the chapter.
Key Concepts

- Environmental hazards, poor safety attitudes, and unsafe behavior can contribute to workplace accidents.
- When a worker is injured on the job, workers’ compensation pays a percentage of the worker’s wage, medical bills, and pension.
- Workers can help prevent accidents by knowing and following safety rules.
- Any injury that occurs on the job needs to be reported immediately, no matter how small.
- Government agencies such as OSHA, EPA, and CDC carefully monitor workplace safety.
Accidents and injuries are not pleasant. No one wants to get hurt on the job or see anyone else get hurt. Workplace accidents can also cause damage to equipment. Injured workers and damaged equipment cost an employer time and money. Workers that are new to a job are more likely to have accidents than experienced workers.

Working safely is the responsibility of every worker and employer. Preventing an accident is much better than living with the results of a serious one. Although jobs in some occupations have high accident rates, accidents can occur anywhere. People are not perfect. However, many accidents can be prevented when people are alert, careful, and aware of the potential dangers around them.

What Causes Accidents?

Directly or indirectly, people cause accidents. According to researchers, accidents are most often caused by

- lack of knowledge or skills
- environmental hazards
- poor safety attitudes
- unsafe behavior

Lack of Knowledge and Skills

Workers need training to do their jobs accurately and safely. Otherwise, mistakes and accidents are more likely to occur. Workers with less than one year of work experience account for a large percentage of all occupational accidents each year. A worker’s knowledge and skill are especially important when working with machinery, equipment, chemicals, or hazardous materials.

Workers who operate machinery should learn as much as possible about the equipment before they begin operating it. They should know exactly what to do if the machine appears to be overheating or if something gets caught in it. Workers should never attempt to operate a piece of machinery they are not trained to use.

Learn as much as you can about materials and chemicals before you use them on the job. What you do not know can be dangerous to you and other workers. Some liquids can cause fires or explosions when used improperly. Some materials that were once thought to be safe are now known to be harmful to your health and may cause cancer or even death. Common examples are asbestos, lead, and mercury. Protect yourself when handling any materials or chemicals by using caution and following label directions.

Lack of knowledge and skill can cause accidents in any job—not just jobs involving machines. For example, consider what happened to Bob on his first day as a waiter at a nice restaurant. All the waiters carry their trays of orders high on their shoulders and gracefully place them on
stands for serving. When Bob picked up his first order, he attempted to do the same. However, half his tray of food scattered across the floor and the other half fell on his customers. Bob tried to perform a task before he developed the skill to do it.

You need to be aware of the things you can and cannot do. Do not pretend to know how to do something you are unfamiliar with. Seek out information about a job you do not know how to do. Make sure you have the knowledge and the skills to perform the task correctly and safely before you begin. See 9-1. Some companies provide employees with on-the-job training before they are expected to perform tasks on their own. Be sure you are familiar with your companies training policies so you know what is expected of you.

To learn a new skill, watch a skilled worker perform the task. Then ask the worker to show you step-by-step how to do the task. Next, perform the task slowly yourself. Have the skilled worker watch you to make sure you do each step correctly. Afterward, practice doing the task until you can do it safely and accurately.

Hazards on the Road

Traffic accidents are a leading cause of accidents and deaths among teens. Although many drive safely and responsibly, a good number do not. As a result, state and federal authorities are cracking down on teen driving in general. Lack of driving experience is the primary reason for teen traffic accidents. Another leading cause is a greater tendency to take risks.

As a school-to-work program participant, your employer will take a special interest in your driving record. In many cases, employers do not permit students who lose their drivers license to keep their jobs. If using a car to get to work is a must, a valid drivers license and a record free of moving violations is usually a requirement for employment. See 9-2.

Environmental Hazards

The very nature of the work environment can influence the number of accidents that are likely to occur on the job. Possible dangers or unsafe conditions in the workplace are known as environmental hazards. These hazards exist in every type of working environment—from jobs involving mechanical equipment to automated offices. However, accidents occur more often in dangerous jobs because more environmental hazards exist.
It is not surprising, for example, that more accidents happen in construction jobs than in office jobs. Construction workers come in contact with a greater number of hazards more often. These hazards include heavy equipment, ladders, hand and power tools, electricity, heights, and many other potential dangers.

### Hazards in Dangerous Work

Environmental hazards exist in many industries besides construction, 9-3. For instance, workers in logging, mining, agriculture, and meat...
processing are also involved in dangerous work. People involved in dan-
gerous work must be safety-conscious. Being safety-conscious involves knowing the job hazards and taking appropriate steps to avoid accidents.

The first step in protecting yourself against job hazards is to know how dangerous your job is. Many employers spend considerable time and money in trying to reduce the number of on-the-job accidents. They offer safety programs, use safer equipment, and train workers in an effort to provide a safe work environment.

The government keeps statistics on workplace injuries and detects trends as new job dangers surface. One problem affecting many workers is repetitive-motion injuries. These injuries result from making the same motion over and over again. Repetitive-motion injuries result in tingling sensations and sharp shooting pains. Destruction of nerve endings and loss of mobility in the limb can result. The science of examining motions and how to perform them properly is referred to as ergonomics.

Hazards in the Office

Office workers can also come in contact with unsafe conditions in their workplace. Safe design of office equipment and improved air quality are some of the safety concerns being studied by companies. In modern offices, safely automating the office while respecting workers’ health and safety needs are growing issues. Repetitive-motion injuries are a common problem. See 9-4. Companies realize that identifying and correcting unsafe conditions will permit workers to perform their duties safely and productively.

Sometimes office workers forget to follow simple safety procedures at work because they feel safe in an office. Most accidents that do occur are caused by a combination of careless people and unsafe conditions. Leaving boxes in walkways or leaving file drawers open are examples of workers creating safety hazards. Recognizing safety hazards and then correcting them are important safety practices for all office workers to follow.

Poor Safety Attitudes

Not taking the right attitude toward safety can put you and others in danger. A poor safety attitude can lead to accidents. Read what happened to the following workers.

- Joan decides to stop wearing her safety glasses when drilling metal at work. She said they were too hot and uncomfortable to wear. The next week a metal chip flew into her eye, causing her to have surgery.
- One of David’s jobs at the warehouse is to stack boxes of merchan-
dise. When the stack of boxes reaches a certain height, David is sup-
posed to start another stack. One day David did not bother to start a new stack. Later that day the stack of boxes fell on another worker and caused him a minor head injury.
Juan works in an office as a word processor. One afternoon while he was on break, he carried a cup of water back to his desk. He did not realize he spilled some water in the hallway at the top of the stairs. The water could not be seen on the tile floor until it was too late. Two coworkers came around the corner, slipped, and fell—one hurting his back after falling down several stairs.

You and every worker need to “think safety.” Safety rules are developed to protect you and others. Get into the habit of doing tasks the safe way. Wear the proper clothes and use the proper equipment, 9-5. Follow all safety procedures exactly. Do not assume that a safe environment happens automatically.

**Unsafe Behavior**

People who do not consider or practice safety on the job have poor safety attitudes. People with these attitudes cause many accidents. The
following stories are all examples of unsafe behavior that should be avoided:

- *Recklessness.* Near the end of a workday, two woodworkers start telling jokes. No one bothers to turn off the circular saw. Jokingly, one worker pushes the other, who loses her balance, falls against the circular saw, and cuts her arm.

- *Bad temper.* Mike works as a chef’s helper in a restaurant. During the lunch rush, another worker yells at him to hurry up. While he is chopping lettuce, Mike angrily yells back. As he does, his knife slips and cuts his finger so deeply that the bleeding would not stop without stitches. Mike reacted without thinking. By losing control of his temper, he was the prime target for an accident.

- *Lack of consideration.* An office worker takes a file from the bottom drawer of the file cabinet and does not bother to close the drawer. Another worker walks around the corner and trips over the open drawer, 9-6.

- *Disobedience.* Latrice works at a local machine shop. Because she operates machinery, she is told not to wear jewelry on the job. She refuses to take her ring off for fear of losing it. As a result, her ring caught on a revolving tool and she loses her finger. Following instructions and obeying company safety rules would have saved Latrice from serious injury.
Part 2  Skills for Success

- **Carelessness.** After mopping the hallway, Pete forgets to put up signs that say “Caution Wet Floor.” A customer walks in, slips on the wet floor, and injures his hip. Pete’s carelessness created an unsafe condition that caused pain and injury to someone else.

- **Laziness.** Tyrone is an example of an accident waiting to happen. He will soon start working on an electric circuit located across the room from the master lockout switch. He thinks the circuit has been properly shut off and locked out, but he is not sure. Anyway, he decides it is too far to walk to check. Tyrone receives an electrical shock and burn.

- **Fatigue.** Marie works two jobs to make extra income. Sometimes she does not even have time to eat after her first job before starting the evening job. In spite of the long hours, Marie feels she can keep up the pace. One night several weeks later, she fell asleep while operating her machine. The machine jams and Marie seriously injures her arm. She is unable to continue working. If Marie had been alert, she might have avoided her accident. A lack of rest and poor diet caused her fatigue. Getting plenty of rest and eating properly would have helped her operate at her best. See 9-7.

- **Impatience.** A file clerk decides to climb the shelves in the storage room to get a box of file folders instead of using a stepladder. The clerk loses her footing, falls backward, and fractures her elbow.

Besides the unsafe behaviors described here, other factors can cause unsafe behavior that may lead to accidents. On-the-job safety can also be influenced by a person’s emotional state or the use of drugs or alcohol.

Reflect Further

What are some other examples of unsafe work behavior you have seen or heard? How can these behaviors be changed to prevent accidents?

Workers on dangerous sites must stay alert and cautious.
• Emotional state. The way people feel on the job can influence their attitudes about safety. Extreme emotions can make them less concerned about their personal safety. That means when they are very happy, angry, tired, or depressed, they are more likely to have an accident. Thinking about their personal problems or not paying attention to their work can affect their job performance. To play it safe, they need to stay in full control of their emotions. Keeping focused on their work is a good way to practice safety and avoid injury.

• Use of drugs or alcohol. These substances can lead to accidents on the job. They can slow down a user’s responses and reflexes. This makes it difficult for a worker to react quickly or accurately to a dangerous situation. Even a routine job can become hazardous when a worker cannot concentrate or coordinate movements well. The use of these substances does not have to take place on the job to affect job performance. Many substances stay in the body hours or even days after their use. The abuse of drugs and alcohol has become such a problem that many companies now conduct preemployment and random drug tests.

Unsafe behavior is a threat to everyone’s safety. Try to avoid these behaviors while you are on the job. Thinking about and practicing safety is the best way to develop a good safety attitude.

Costs of Accidents

The costs of work-related accidents are high. Billions of dollars are spent each year to cover the medical costs and wage losses of people who become victims of accidents. Everyone—you, your employer, and the economy—feels the effects in some way.

The Costs to You

You may not realize the importance of your health and safety until you have an accident. What is the cost to you? An accident can cost you financially and personally. It could lead to lost time on the job, possible wage loss, and even a job loss. A serious injury could cost you your career. If you cannot perform your job, you may be forced to make a career change or train for another type of work.

A serious disability could forever prevent you from working. A disability is a permanent job-related injury. Dealing with an injury can be difficult. Often there is no amount of money that could ease the suffering or personal loss that results from an accident.

The Costs to the Employer

Work injuries from accidents cost employers time and money. As the result of an accident, production slows down when a worker cannot perform his or her duties. Finding another experienced worker to replace
In the Real World

Is Safety Everyone’s Business?

Cleon had been on his job as a forklift operator for just a few weeks when he noticed two press operators not following company safety rules. They wore their safety glasses and shields only when the supervisor was in the area. In addition, one of the operators frequently disabled a safety switch so he could produce work faster and, thus, create more “down” time to relax. They always quickly put on their glasses and reactivated the safety switch whenever the supervisor appeared.

Cleon was very concerned for the safety of his fellow workers. Both his school-to-work coordinator and his workplace mentor constantly stressed the importance of safety and of reporting unsafe conditions. Cleon approached the worker who was not wearing his safety glasses and said, “Felix, I know wearing glasses is uncomfortable, but you really should wear them. You could be hit by a piece of molten metal off your press and be blinded for life!”

Felix gave Cleon a blank stare, smiled slightly, and returned to his work.

Cleon persisted, “Why won’t you wear them? Don’t you care about your eyesight?” At that, Felix spun around and said angrily, “Why don’t you mind your own business! You’ve been here a few weeks and you think you know everything. I have been operating this press for six years and have never been injured. The safety glasses and shields make it more difficult for me to see the work. I can’t get any work done with them on.”

Cleon became a little nervous at Felix’s sudden outburst and turned to walk back to his forklift. However, he couldn’t resist a last comment and said, almost under his breath, “I’ll bet your supervisor wouldn’t appreciate your speed if he knew you were violating safety rules.”

Felix heard the comment, grabbed Cleon by the shoulder, and spun him around. Felix then grabbed Cleon by the front of his shirt and started to throw a punch. He said, “If you ever say anything to the supervisor about me or Roy, I’ll catch you outside the plant and you’ll be sorry you were ever born!”

Cleon backed down quickly. He said, “I’m sorry, I was only kidding. I’ll never say anything to the supervisor. What business is it of mine anyway?”

From that day on, Cleon vowed to concentrate only on his job. He ignored every unsafe condition he saw while operating the forklift except those that involved his own safety.

Questions to Discuss

1. Do you think Cleon was right in confronting Felix about his unsafe behavior? Should he have talked to his school coordinator or workplace mentor first?
2. Was Cleon legally bound to report safety violations? Was he morally bound to do so?
3. Did Cleon make the right choice in deciding to mind his own business? How would you have handled the situation?
accidents. The employer rather than the employee pays the premiums for this type of insurance.

When workers are injured, they are entitled to certain benefits. Workers’ compensation pays a percentage of the worker’s regular wage, medical bills, and pension. The program covers other benefits, too. These benefits include income for disability or death and insurance against diseases caused by working conditions.

All states in this country have workers’ compensation laws, although they may differ slightly from state to state. Each state’s Department of Labor administers this program. They can provide more information about workers’ compensation laws in your state.

The Costs to the Economy

How do work-related accidents affect the nation’s economy? Accidental deaths or disabling injuries affect many workers in the workforce. Billions of dollars are paid nationwide each year to injured workers covered under workers’ compensation. This money covers wage losses, medical costs, and insurance administration costs. Employers may be affected by factors such as lower production and higher insurance premiums. This means higher prices for goods and services that are passed on to the consumer. Eventually, everyone pays for the high cost of accidents and injuries.

Preventing Accidents

Preventing accidents is everyone’s responsibility. On the job, you share that responsibility with your employer. Doing what you can to prevent accidents will help make your workplace safer.

What can you do to prevent accidents? Learning to do your job correctly is a good way to start. Think and act safely while you are on the job. Avoid unsafe acts and correct any unsafe working conditions. Know and follow safety rules to help prevent accidents. Following these other safety procedures will also help you prevent accidents:

- Stay healthy.
- Use machines and tools properly.
- Wear protective clothing and use protective safety equipment.
- Follow safety precautions.

Stay Healthy

Being alert and healthy is the best way to do your job well and safely. You can stay healthy by eating properly and getting adequate sleep. This practice cuts down fatigue. Fatigue on the job can lead to unsafe behavior that causes an accident. If you become ill while on the job, stop working. Your illness affects your performance and may cause you to injure yourself or someone else. Report your illness to your supervisor.
Regular exercise will help you stay alert and physically fit. This is especially important for jobs requiring physical activity. However, it will also improve the performance of workers in jobs that are demanding mentally instead of physically.

### Use Machines and Tools Properly

Many machines and tools can be dangerous if not handled properly. Never operate any type of machinery without receiving proper operating instructions and supervision. See 9-8. If you do not know, ask! When you use any machines or tools, work at a safe speed. Taking shortcuts, rushing, or taking chances could lead to a costly accident. Keep all work areas around machinery clean. Scraps of material or oil can cause a worker to slip or fall.

Hand tools should be used and maintained properly. Choose the right tool for the job to get it done safely. Tools should be kept clean and in working condition. Sharpen dull tools and replace broken handles. All tools should be properly stored when not in use.

### Use the Computer Properly

Today many jobs involve using a computer in one form or another. Eyestrain and repetitive-motion injuries are two problems commonly associated with extended computer use. The following tips can help you avoid many health problems.

- Use a large monitor, if possible, and place it slightly below eye level and 18 to 28 inches from your eyes.
- Place your computer in a position that avoids glare from other light sources.
- Place reference material close to you on an appropriate holder to avoid unnecessary head movements.
- Use dark lettering on a light background on your monitor display. Be sure to keep it sharply focused.
- Clean your screen regularly.
- Blink your eyes frequently to help them stay moist.
- Adjust your chair to a proper height for you.
- Maintain good posture and keep your muscles relaxed.
- Take frequent short breaks to stand up, stretch, and rest your eyes. Exercise your wrists and fingers frequently.
Chapter 9  Safety on the Job

Wear Protective Clothing and Use Protective Equipment

Certain jobs require special protective clothing and equipment to prevent injury to the worker. Wear properly fitted clothes, especially if you work with moving machinery. Protect your feet by wearing hard-toed safety shoes on construction and industrial sites. Hard hats are required safety equipment in the construction industry. Dust masks or protective breathing devices are necessary around dust, chemical sprays, and biological agents. See 9-9. Protective gloves and clothing are needed when handling chemicals. Wear protective eye equipment and hearing protection when needed. Always be sure to follow company policies and procedures.

Follow Safety Precautions

Closely following basic safety precautions is another way for you to help prevent accidents. Practicing safety on the job includes using ladders safely, washing hands frequently, lifting properly, preventing fires, and keeping work areas neat.

Use Ladders Safely

Many jobs require the use of ladders. Ladders should be handled with care. Choose the right ladder for the job. Check the ladder to be sure it is in good condition. Avoid using metal ladders near electrical equipment or high-voltage wires because metal conducts electricity. Someone

9-9
Some employees are required to wear special clothing and protective devices to keep them safe from environmental hazards.
standing on or touching the ladder could be seriously injured or killed if electricity comes in contact with the ladder.

Ladders should be placed firmly on level ground to prevent tipping. The base of extension ladders should be placed the proper distance from the wall or building they are leaning against. Make sure the ladder is strong enough to support you and the tools and materials you use. To avoid a fall, place the ladder within an arm’s length of your work. Face the ladder when you climb up or down.

Wash Hands Frequently

Proper and frequent hand washing has proven to be a major factor in preventing the transmission of communicable diseases. Be sure to wash your hands after using the restroom and before eating or handling food. The following general procedure is recommended. Of course, if you work in a clinical setting or know you have been exposed to an infectious agent, stricter guidelines may apply.

1. Wet your hands with warm running water.
2. Apply soap to all surfaces of your hands and fingers.
3. Vigorously rub your hands together for 10 to 15 seconds. Be sure to generate friction on all surfaces of your hands and fingers. Take extra care to remove dirt from under your fingernails.
4. Remove all soap by thoroughly rinsing your hands.
5. Dry your hands using a paper towel or electric hand dryer if available.

Lift Properly

Using proper lifting procedures can help prevent injury. Lifting heavy objects incorrectly or lifting too much at one time can cause strains or back injuries. To lift properly, use your leg muscles because they are stronger than your back. Keep your back straight and your knees bent when you lift a heavy object from the floor. Do not try to lift more than you can handle. Instead, ask for assistance or learn to use a mechanical aid, such as a crane or hoist, to assist you.

Prevent Fires

The best way to avoid a fire is to prevent it from starting. Faulty electrical wiring and careless smoking are the main causes of many fires. However, some workplaces now prohibit smoking in the building or limit smoking to designated areas only. This decreases the risk of fire. Other causes of fire may include: faulty heating equipment, unattended open flames in labs or kitchens, and grease buildup in kitchen hoods. Another cause of fire is the careless use of flammable liquids. These are liquids that ignite easily and burn rapidly, such as gasoline.
A fire needs oxygen, fuel, and heat to start. You can extinguish a fire by removing any one of those elements. Fire extinguishers are designed to help put out fires. There are four different types of fire extinguishers, each one designed to fight a specific type or class of fire. Using the wrong type of extinguisher could actually make the fire worse or injure the person operating it. Be sure you know if the extinguisher is designed for the type of fire you are fighting before using it, 9-10.

You can help prevent a fire on the job by following these other safety tips:

- Keep your work area clean.
- Do not store oily rags and paper in open containers. They could eventually ignite.
- Keep containers of flammable liquids tightly closed. Store in a cool area.
- Do not overload electrical wires. They could short-circuit and cause a fire.
- Use matches and lighters only in designated areas.

If a fire should occur in your work area, follow your company’s fire plan. Review the plan periodically so you will know what to do before the need arises. Above all, stay calm.

If you are selected to assist during a fire emergency, you will receive extra training in the use of fire extinguishers. If no specific fire plan exists, there are some general guidelines to follow. See 9-11.

### Classes of Fires

<table>
<thead>
<tr>
<th>Ordinary Combustibles</th>
<th>Class A fires involve wood, paper, cloth, rubber, many plastics, and other ordinary combustible materials. Water or solutions containing a large percentage of water stops these fires.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flammable Liquids</td>
<td>Class B fires involve flammable liquids, gases and similar materials such as greases, oils, tars, and oil-base paints. Stopping these fires requires smothering (or exclusion of air) and the interruption of the chemical chain reaction.</td>
</tr>
<tr>
<td>Electrical Equipment</td>
<td>Class C fires involve Class A or B fires in or near live electrical equipment. A nonconductive agent must be used in the fire extinguisher to prevent injury to its operator.</td>
</tr>
<tr>
<td>Combustible Metals</td>
<td>Class D fires involve combustible metals such as magnesium, titanium or sodium. Special extinguishing agents and techniques are needed for fires of this type.</td>
</tr>
</tbody>
</table>

9-10
There are four classifications of fires, and each needs a specific type of fire extinguisher.
Keep Work Areas Neat

Good housekeeping helps reduce hazards in the work area. Keeping your work area neat and clean will prevent accidental tripping, slipping, or being struck by falling objects. Pick up any scraps and wipe up spills immediately. Place safety cones or caution signs on freshly mopped floors so they can be seen from all directions. Store tools in a safe area after use. Do not leave any items on stairs or in walkways where someone might trip or fall.

You can find more information related to accident prevention through the National Safety Council at www.nsc.org. It is the nation's leading advocate for safety and health. The National Safety Council's mission is “to educate and influence people to prevent accidental injury and death.”

What to Do When an Accident Occurs

No matter how careful people are, accidents do happen. When an accident occurs, it is very important to stay calm. Very often, the difference between staying calm and panicking is preparation. Prior training will teach you what to do in an emergency, and it could help save an injured person's life.

Be sure to report any injury that occurs on the job, no matter how small. Even a small scratch could lead to blood poisoning.

Call for Help

Call for help as soon as it is safe to do so. Who you call will depend on the extent of the accident or sudden illness. In cases of serious injury or illness you will want to telephone for professional help. Often phoning 9-1-1 or your local emergency number accomplishes this. The Poison Control Center should be contacted immediately for accidents involving any type of poison. Review your company’s emergency policy so you know what to do if an accident occurs. You may also need the help of bystanders in making the phone call, assisting the injured, or controlling traffic.

When making the telephone call, be sure to explain the nature of the accident and what type of aid has been provided. Identify the location of the accident and the telephone number of the phone you are using. Then stay on the line until the emergency provider gets all the information needed and hangs up.
In the Real World

It Is Just a Scratch

The cleanup bell had already rung in cabinet-making class and Clarisa was running late. Her tools had not been put away and her workbench was covered with shavings. Her boyfriend was waiting at the door, and the floor sweeper was on her to hurry as she was holding up dismissal of the entire class. So rather than take time to pick up the brush hanging on the side of the cabinet, she just used her arm to sweep the shavings to the floor. As she did so she felt a sting on the palm of her hand and noticed a light scratch near her right thumb. She knew her teacher, Mr. Gonzales, required her to report all accidents immediately but she just could not take the time now.

The next morning Clarisa noticed a slight redness around the scratch. However, it was so small she had to think twice to remember how she had received it. When she entered her cabinet making class she decided not to report her accident. She did not want to hear another one of Mr. Gonzales’ lectures on the importance of safety and how critical it was to follow all class rules.

A few days later red streaks appeared on her hand and arm. She developed a fever and began to feel very ill. It was only then that Clarisa decided to report her illness to the school nurse. After two weeks in the hospital she was on her way to recovery from a near fatal case of blood poisoning.

Questions to Discuss

1. Would you have reported the accident when it first occurred? Why or why not?
2. What should Clarisa have done when she first noticed the scratch?
3. Do you think Mr. Gonzales’s stern approach to safety contributed to Clarisa not reporting the accident?
4. Is there a way Mr. Gonzales could stress the importance of safety and not discourage students like Clarisa from reporting accidents?
5. Do you think Clarisa will think differently about Mr. Gonzales’s approach to following safety rules?

Provide First Aid

First aid means giving an ill or injured person immediate, temporary treatment before proper medical help arrives. Try to receive formal first aid training before or while you are on the job. The Red Cross is one organization that provides training classes in first aid and CPR. Online first aid training is available as well. You should have a reason for everything you do. These basic lifesaving steps are shown in 9-12.

To stop the bleeding, use a tourniquet as a last resort. A tourniquet is a long, thin strip of cloth or other material twisted tightly around the body to restrict blood flow.

Follow Universal Precautions

Whenever an accident occurs that involves loss of blood or vomiting, there is a danger of spreading serious viral infections like AIDS.
Universal precautions are the following steps designed to help prevent the spread of infection.

1. Use protective barriers such as appropriately designed masks, gowns, gloves, and eye protection.
2. Always wear latex gloves when handling blood.
3. Remove the first glove by touching the outside of that glove with your other gloved hand. Remove the second glove with your bare hand by touching only the inside of the second glove. To remember this procedure, think of the phrase *glove to glove-side, skin to skin-side*.
4. Dispose of gloves in a plastic bag labeled *contaminated*.
5. Wash your hands after handling blood even if gloves were worn. See 9-13.
6. If blood has made contact with any part of your body, wash or rinse (if eyes) thoroughly and see a doctor immediately.
Chapter 9  Safety on the Job

One or more persons at your workplace should be trained in universal precautions. Whenever possible, rely on that person to handle accidents where a loss of blood occurs. Call him or her first!

**Follow Emergency Evacuation Procedures**

As in the case of some fires, there may be a time when a situation becomes so severe that it will require an evacuation of a portion or all of a facility. In other situations, such as a tornado warning, it may be more important to go to a safe place in the building rather than leave. Your employer should have specific guidelines for these situations.

It is very important that you know and understand what you are expected to do. Look for posted copies of floor plans that show emergency exits and evacuation routes. Determine their location in advance so you will be able to find them in an emergency. Many companies conduct emergency drills. Take these drills very seriously. How you behave in an actual emergency could end up saving your life and the lives of others.

**Workplace Violence**

Workplace violence is a very serious problem for the American worker. Workplace violence involves violent acts or threatening behavior that occur in the workplace or at a company function. Each week thousands of individuals are victims of workplace violence. Actual numbers are hard to determine as many of these instances go unreported.

Attacks of violence in the workplace may be physical or psychological. For example, physical attacks may include shooting, hitting, pushing, or kicking. Psychological attacks may involve harassment, swearing, or verbal or written threats. The individuals involved in workplace violence may not be current or former employees. They could be customers or someone associated with an employee such as a spouse or even a friend.

There are many possible motives for workplace violence. Some may include robbery, domestic problems, or personality conflicts. It could be an employee who feels he or she has been fired or disciplined unfairly. Another cause for workplace violence could even be imagined problems by someone who is mentally unstable. Many people see workplace violence simply as an extension of the violent society in which we live.

As you can see, workplace violence is a very complex issue. There are no easy solutions for prevention. However, there are some things you should keep in mind. For example, where you work is an important factor. Retail and fast food businesses tend to be more prone to violence. While murder is one of the leading causes of death on the job, the vast majority of workplace murders are robbery-related. Many businesses
In the Real World

Not in Nathan’s Job Description

Nathan was proud of his promotion to assistant stockroom attendant. The factory, which manufactured lighting fixtures, was one of the city’s largest employers. He felt confident that he was well prepared to handle all the duties of his new job. Then one day something unexpected happened to Nathan that made him unsure of his capabilities.

One of his new responsibilities was to deliver lamp parts to workers in the plant. They would then take the parts and perform grinding and polishing operations prior to final painting and assembly.

One morning he delivered a box of parts to Hunter for final grinding. He was expecting the friendly greeting he usually got from workers on his morning rounds. However, Hunter looked rather upset. He did not smile but scowled and said: “Take them back. I have too much to do already.” Nathan replied that he was just doing what he had been told to do by his boss, Mr. Mathews, and he would not take them back. At that point Hunter jumped up and stood face to face within a few inches of Nathan. His fists were clenched and his face was red. He screamed, “OK leave them! But I am going to find you at lunch and knock your teeth out!”

Nathan was shocked and scared. He was not sure what to say or do. He just turned and walked away acting as brave as possible.

Questions to Discuss

1. Could something besides the workload be bothering Hunter?
2. Should Nathan have taken the parts back to the stockroom? Why or why not?
3. Do you think Nathan should have said something in response to Hunter’s outburst? If so, what?
4. What should Nathan do next?

have now installed bulletproof glass, video surveillance, and alarm systems. Some businesses have even changed the way cash is handled in response to this problem. You need to be aware of the potential dangers whenever you are handling cash and follow established guidelines.

The Occupational Safety and Health Administration (OSHA) is a government agency that sets and enforces job safety and health standards for workers. OSHA recommends that employees take the following steps to help prevent workplace violence. However, following them will not guarantee you will not become a victim. You can learn more about causes and prevention of workplace violence by visiting the OSHA Web site at www.osha.gov/

- Learn how to recognize, avoid, or diffuse potentially violent situations by attending personal safety training programs.
- Alert supervisors to any concerns about safety or security and report all incidences immediately in writing.
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- Avoid traveling alone or in unfamiliar locations or situations whenever possible.
- Carry only minimal money and required identification into community settings.

The Role of Government in Protecting Your Health

The government plays an important role in promoting safe working environments. It makes and enforces laws that promote health and safety on the job. These laws led to the creation of three government agencies that carefully monitor workplace safety: The Occupational Safety and Health Administration (OSHA), the Environmental Protection Agency (EPA), and the Centers for Disease Control (CDC).

OSHA

The Occupational Safety and Health Act is a national act passed by Congress in 1970. The act calls for safe and healthful working conditions. Under this act, the Occupational Safety and Health Administration (OSHA) was formed. Most employees are covered under the act. Some who may not be covered are: self-employed persons, independent farmers, and workers covered under other legislation. Also, OSHA does not cover employees of state and local governments unless they are in one of the states with OSHA-approved safety programs.

OSHA provides workplace inspection, training, and education programs. It also enforces the law, making sure that required health and safety standards exist in the workplace. To an employer who does not comply, OSHA gives a citation, which is a summons to appear in court, and may charge one or more fines.

Employers and employees both have certain responsibilities under the law. OSHA makes it mandatory for each employer to provide all its employees a safe place to work—free from safety and health hazards. The employer is also responsible for following the standards set forth by OSHA and making sure employees follow safety procedures. Employees, on the other hand, are expected to adhere to OSHA health and safety standards and follow these rules:

- Read the OSHA poster at your job site so that you know your rights and responsibilities.
- Follow OSHA safety standards and your employer’s standards.
• Report any injury that occurs on the job.
• Wear personal protective equipment when required. A list of some of the most common protective devices and the protection each provides is shown in 9-14.
• Use safety devices properly.
• Participate in fire drills and other safety practices.
• Report unsafe working conditions and practices. If your employer does not correct the situation, request OSHA to make an inspection. A state or federal OSHA office is located in each state.

An important provision of OSHA is the Hazardous Chemical Right to Know. As an employee, you have the right to know about any hazardous chemicals in your workplace and be trained to handle and use them. This includes container labeling and other forms of warning. Your employer is also required to have a material safety data sheet (MSDS) for each hazardous material. These sheets provide information on the specific hazards involved and procedures for their safe use. Your employer must train you to recognize and avoid the hazards present in these materials. See the OSHA Web site at www.osha.gov/ for more information about OSHA programs.

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<th>Examples of Personal Protective Equipment</th>
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EPA

Keeping the environment safe and clean is a major concern for everyone. Pollution not only damages the environment, it can cause serious health hazards and diseases. The **Environmental Protection Agency (EPA)** is another government agency that works to make this country a safer place to live. The agency was formed for the purpose of protecting the environment. The EPA works to eliminate environmental hazards such as air and water pollution. Other environmental concerns regulated by the EPA include: toxic waste disposal, pesticide standards, and radiation monitoring.

To help reduce pollution, the EPA has attacked industrial smokestack pollution, auto exhaust emissions, and contaminated rivers and lakes. As a result of the agency’s work, many cities now have cleaner air. Some rivers and lakes have been reopened for fishing and swimming. Many toxic waste sites have been improved.

The EPA also conducts research on the effects of pollution and provides assistance to states and cities working to prevent pollution. You can learn more about the EPA regulations and programs by visiting their Web site at [www.epa.gov](http://www.epa.gov).

CDC

The **Centers for Disease Control and Prevention (CDC)** is part of the United States Department of Health and Human Services. CDC works with worldwide, state, and local health agencies to protect the public from health threats. CDC’s activities include conducting research, promoting public health policies, and providing leadership and training. Mysterious deaths or illnesses are often sent to CDC for investigation. You can find a variety of health-related information at the CDC Web site, [www.cdc.gov](http://www.cdc.gov).

The **National Institute for Occupational Safety and Health (NIOSH)** is an arm of the Centers for Disease Control and Prevention. It is specifically responsible for conducting research and making recommendations for the prevention of work-related injury and illness. NIOSH information related to young worker safety and health may be found on their Web site at [www.cdc.gov/niosh/topics/youth](http://www.cdc.gov/niosh/topics/youth).
Safety is everyone’s responsibility—especially on the job. Many accidents are caused by a lack of knowledge and skills.

The costs of accidents affect everyone. An injured worker must personally deal with the injury. The employer’s costs include lower production, training or hiring another worker, and dealing with possible lawsuits or fines. The economy is affected by losses in the workforce, billions of dollars paid for accidents, and higher costs of goods and services as a result.

Practicing safety can prevent many accidents. Wearing protective clothing and using safety equipment will help protect the worker from environmental hazards. Workers can reduce job hazards by using ladders and lifting properly, preventing fires, keeping work areas neat, and washing hands frequently. Workers should also know what to do when an accident does occur. This involves properly reporting the accident, knowing first aid steps, and following universal precautions and proper evacuation procedures.

Workplace violence continues to be a major problem for American workers. It is important that workers are alert to possible dangers and know how to respond.

Summary

### Facts in Review

1. What are the four main causes of accidents?
2. What workplace is free of accidents?
3. If you do not know how to operate a machine or perform a task, what should you do before trying to do it on your own?
4. Describe a good way to learn a new skill.
5. Give three examples of workers not taking the right attitude toward safety.
6. List five reasons for unsafe behavior on the job that could lead to an accident.
7. What are the costs to an employer if a worker is injured on the job?
8. Identify four basic ways to prevent accidents in the workplace.
9. When is it particularly important to wash your hands?
10. Describe the steps to follow when washing your hands.
11. What three requirements are needed to start a fire?
12. What are the important procedures to remember when following universal precautions?
14. What does OSHA do?
15. According to OSHA, what are employees required to do?
16. How does the EPA help keep the environment safe and clean?
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Developing Your Academic Skills

1. Science. Using Internet or print sources, research materials or chemicals that can be harmful, such as asbestos, lead, and mercury. Write a brief report of your findings.

2. Health. Using Internet or print sources, research the hazards of drug and alcohol abuse in the workplace. Prepare a presentation based on your findings.

3. Social Studies. Prepare a report on the role of government agencies such as OSHA, EPA, and CDC in monitoring workplace safety.

Information Technology Applications

1. Using the Internet, research workers’ compensation laws in your state. These might be found on the Web site of your state’s Department of Labor. Write a report of your findings.

2. Explore the OSHA Web site at www.osha.gov/. What procedure should a worker follow if unsafe working conditions or practices exist and have not been corrected at the worker’s company? Write a brief essay of your findings.

3. Visit the EPA Web site at www.epa.gov/. Search for information about how the agency works to protect the environment and your health. Write a one-page report to present to the class.

4. Investigate the CDC Web site at www.cdc.gov/. Create a paper describing a major news event in which CDC has played an important role.

Applying Your Knowledge and Skills

1. Employability and Career Development. List two examples of accidents that have occurred in your type of work. Write a paragraph about each one, describing what happened. Then write another paragraph about each, explaining how the accident might have been prevented.

2. Communications. Collect information about job safety, including safety tips and procedures, that relate to your job. Use this information to write a brief report about safety on your job site.

3. Systems. Contact two local employers. Ask them to discuss safety training or any programs they use for their employees’ safety.

4. Safety, Health, and Environment. Locate at least three fire extinguishers in your school or place of employment. Determine the type of extinguisher and the last date of inspection. Then write a paper summarizing your findings. State why you feel the specific type of extinguisher was used in the location you found it.

5. Problem Solving and Critical Thinking. Using Internet or print sources, identify at least 3 examples of workplace violence that have occurred in the last six months. Briefly describe the events and recommend changes in company policy that could help to prevent future occurrences of each event.

Developing Workplace Skills

Identify a hazardous occupation that requires the wearing of personal protective equipment. Determine what the equipment is by conducting research at the library, on the Internet, and/or by visiting a worker in that occupation. Make a list and describe the purpose of each piece of equipment. Indicate the source(s) of your information.