



Chapter 15

Keeping Safety First

Chapter Objectives

After studying this chapter, you will be able to

- **identify** proper workplace safety procedures.
- **explain** proper safety procedures when working with machinery and tools.
- **describe** safety procedures related to lifting, upkeep, organization, and using ladders.
- **apply** fire safety procedures.
- **list** five lifesaving steps in first aid.
- **describe** responsibilities of employers and employees under OSHA.

Key Concepts

- You must follow safety rules to prevent accidents.
- Follow proper safety procedures when working with machinery, tools, and ladders and those related to lifting, upkeep, and organization.
- Preventing fires and knowing what to do if one occurs can save lives and property.
- You must be alert and healthy to do a job well and safely.
- There are federal laws designed to promote safe and healthy working conditions.

Key Terms

dismissal
grounded
flammable liquid
fire triangle
evacuate
first aid
OSHA
FLSA
workers' compensation
disability

Thinking and Acting Safely

Accidents on the job cost companies money. Medical bills must be paid. Production goes down. New or part-time workers may need to be hired to take the place of injured workers. Fines and lawsuits are also possible.

Preventing accidents is everyone's business. It is important to always think and act safely. You must know the safety rules, but simply knowing them will not stop accidents. More importantly, you must follow safety rules to prevent accidents.

The first rule of safety is to learn the right way to do your job. That will always be the safe way. Never operate equipment or use tools unless you have been shown the proper and safe method. If you are not sure about any part of your job, ask your supervisor for further instruction. Don't guess! A mistake could cost your life or someone else's.

Ten general safety rules are listed in 15-1. Following them will help keep you safe on the job.

Unsafe Acts

Do you always act safely? At least 95 percent of all accidents are caused by unsafe acts or unsafe conditions. Most of these accidents could be avoided by using common sense.

People cause unsafe acts. No one really wants an accident to happen, but sometimes people act before thinking. For

15-1

Following these general safety rules will help you avoid accidents and injuries on the job.

Ten General Safety Rules

1. Comply with all company safety rules and signs.
2. Follow all instructions. Do not take chances. If you don't know the rule or procedure, ask!
3. Correct or report all unsafe conditions.
4. Use the correct protective equipment. Wear properly fitted clothes.
5. Report all accidents. Get first aid promptly.
6. Use, adjust, and repair equipment only when authorized. Report safety hazards immediately.
7. Use the right tool for the job. Use it correctly and safely.
8. When lifting, bend your knees. Get help for lifting heavy loads.
9. Don't goof off.
10. Keep your work area clean.

instance, some people feel that wearing safety glasses around moving machinery is unnecessary. However, a chip of wood or a tool hitting a person in the eyes could cause injury or blindness. Knowing that, is taking off your safety glasses worth the risk? Beware of the following unsafe acts:

- wiping or cleaning moving machinery
- failing to wear proper protective clothing
- wearing jewelry or loose clothing around equipment
- failing to pull back long hair
- smoking in a nonsmoking area
- failing to follow safety rules and signs
- goofing off
- lifting a load that is too heavy
- removing or not using machine guards
- taking chances

You have to act safely to protect yourself. You must also act safely to protect others. Being careless can hurt not only you, but others as well.

Unsafe Conditions

Unsafe conditions cause accidents. Whenever possible, correct unsafe conditions even if you didn't cause them. For example, clean up spills so no one will slip and fall. Pick up objects left on steps so no one will trip or fall. Do not be responsible for some other person's accident.

You cannot correct all unsafe conditions. Those that can't be corrected should be reported. Your supervisor will thank you for it. Be on the lookout for the following unsafe conditions:

- poor upkeep and organization
- dim lighting
- blocked fire exits
- high stacks of boxes
- overused electrical extension cords
- opened drawers left unattended

- dangerous objects overhead
- tools left lying around
- oily rags in paper boxes

Can you think of other unsafe conditions that might occur at work? If so, how would you correct them? See 15-2.

Proper Safety Attitude

Your actions speak louder than words. The way you act on the job reflects your safety attitude. In order to practice safety, you must think about safety. Thinking about and practicing safety requires a proper safety attitude.

Certain attitudes can lead to accidents. Try to avoid these and develop safety-conscious attitudes.

15-2

Correcting unsafe conditions, such as poor lighting, can help prevent accidents in the workplace.



Forgetfulness

Forgetting safety details can cause you and others serious injury. Make it a habit to follow all the safety steps associated with your job.

Noncompliance

Noncompliance with company safety rules and signs can be the first step toward an accident. Follow instructions. Do not violate orders.

Carelessness

Your job requires your full attention. Daydreaming on the job can result in a mistake that causes someone pain and injury. Keep your mind on what you are doing.

Lack of Anger Management

You are a prime target for an accident if you are not in full control of your emotions. Hotheads react without thinking. It's too late to be sorry after an accident has occurred. Learn to control your anger and think clearly.

Uncertainty

If you are not sure how to perform a task, ask for instructions or a demonstration. A wrong decision can lead to an injury.

Fatigue

You cannot operate at your best when you are tired. Alert people have fewer accidents. Get plenty of rest and pay attention to what you do on the job.

Laziness

People who don't want to make the effort to follow good safety practices are asking for an accident to happen. Ignoring safety rules is a serious matter that could cause your *dismissal*. That is another term for being fired.

Showing Off

A show-off is a danger to everyone. That person is more interested in gaining attention than in promoting safety. A show-off usually takes unnecessary chances, 15-3.



Community Connections

Interview at least three workers in various occupations to learn more about workplace safety. Find answers to the following questions: What are the special dangers or safety concerns of your job? What training do you receive to prevent workplace accidents? What is the procedure for handling accidents at your job?

dismissal
Another term for being fired.

15-3

Racing machines or showing off in other ways can cause extensive property damage and serious injury to you and your coworkers.



Your Reading

Why is the first rule of safety to learn the right way to do your job?



Workplace Safety

Many workers, such as office workers, do not consider their work areas unsafe. Because they feel safe, they often forget to follow simple safety precautions. Accidents, however, do occur in office settings and similar workplaces.

Most workplace accidents are caused by a combination of an unsafe act and an unsafe condition. Workers in office settings and other workplaces need to recognize safety hazards and correct them. Workers should adhere to the following safety practices:

- Close all desks and file drawers when they are unattended or not in use. Make sure drawers do not open into aisles or walkways where people could bump into or trip over them.
- Be careful when using manual paper-cutting machines. Pay attention to what you and those around you are doing. Use extreme caution with blades of any type.
- Turn off all office machines before cleaning, adjusting, or adding fluid or cartridges. Office machines can be as harmful to people as factory machines.
- Make sure all electrical machines and electrical cords are kept in good repair and grounded. A plug that is **grounded** has an electrical connection with the earth. It

grounded

Connected to the earth to avoid electrical shock.

prevents shock by causing electricity to flow to the ground rather than into your body.

- Do not touch electrical machines or connections with wet hands. Water is a good conductor of electricity. An electrical shock could cause serious injury or even death.
- Don't lean too far back in a chair or sit on the edge of the seat. It could slip from beneath you. See 15-4.
- Replace worn electrical cords or plugs. Frayed cords and bad connectors can create sparks and cause fires.
- Unplug electrical connections by pulling the plug, not by pulling the cord. Pulling the cord could damage the protective covering and cause a shock or start a fire.
- Do not overload electrical circuits with too many machines or appliances. Overloading can cause wires to heat and start a fire.
- Use the handrails on stairs to prevent falls.

**15-4**

Sitting properly in a chair can help to prevent workplace accidents.



Your Reading

How are most workplace accidents caused?

- Keep the floors clean and dry to prevent slips and falls. Keep telephone wires and extension cords away from places where people could trip on them.
- Never stand on movable office furniture to reach high bookshelves or to replace lightbulbs. Use sturdy ladders or step stools with nonslip treads.
- Read and follow all directions on storing and using chemicals for office machines.
- Be extremely careful of dangling hair, jewelry, scarves, and neckties when working with office machines. Anything that could be caught in machinery should be held back or removed before working with the equipment.

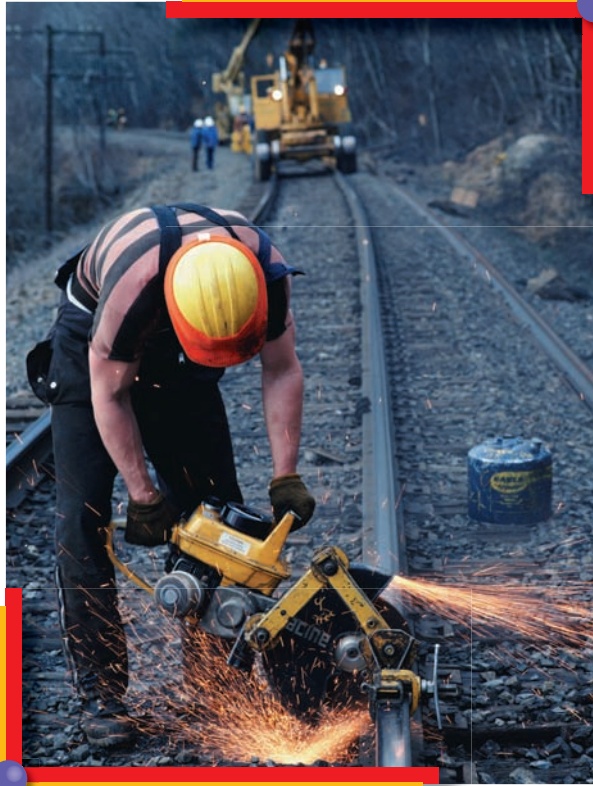
Safely Using Machinery, Tools, and Workplace Items

Factory and construction workers need to be especially aware of safety hazards. Many of the machines and tools used by these workers can be dangerous if not handled properly. See 15-5. A few general guidelines should be followed when working with machinery and tools.

- Work at a safe speed. Rushing and taking shortcuts could cause accidents. Never take a chance. Trying to save a minute or two could cost you a finger or even your life.
- Wear the right clothes. Clothes should fit snugly. Loose clothing can get caught in moving machinery. Keep your outer clothes buttoned. Don't take a chance on getting pulled into moving machinery. Avoid wearing dangling jewelry.
- Protect your feet. Do not wear sneakers, flip-flops, or sandals on industrial or construction work sites. You should wear hard-toed safety shoes. They protect your feet from falling tools and equipment. Safety shoes can save you from pain and serious injury.

Working with Power Tools and Equipment

The first rule of personal safety is *always think first*. This rule applies to all operations. The second rule is *never operate*

**15-5**

People who work with machinery and tools must take extra precautions to stay safe at work.

any power tools or equipment without first receiving proper operating instructions. Power tools should be used correctly and safely. Adhere to the following safety rules with electrical tools and equipment:

- Never operate unfamiliar equipment until you receive specific instructions on its operation.
- Make sure your hands are dry before using an electrical cord. To unplug a cord, grip the plug itself. Do not pull on the cord.
- Keep the starting switch in the off position when plugging in equipment.
- Examine the equipment before turning it on. If an electrical cord is cut or has exposed strands of wire, do not use it.
- Never operate defective equipment.
- Wear the proper protective clothing. Also remember to wear safety goggles to protect your eyes from dust and flying objects, 15-6.

15-6

Workers in many areas need to wear safety goggles or other types of eye protection.



- Report defective tools and equipment to your supervisor.
- Keep all safety guards and shields in place.
- Do not oil, clean, or adjust equipment when the power is on.
- Disconnect electrical equipment when not in use.

Proper Use and Care of Hand Tools

Many accidents are caused by improper use and maintenance of hand tools. You should learn to use each tool the correct way. Choosing and using the right tool for the job gets it done faster and more safely.

Tools should be kept clean and in good condition. Dull tools should be sharpened. Broken handles should be replaced.

Each tool should be stored in its own place when not in use. It will be easier to find when needed. Also, properly stored tools will not fall on you or cause you to trip.

Carry sharp or pointed tools in kits or tool belts. Never carry them in your pockets. Always cover points or sharp edges with shields.

Lifting

Improper lifting is a common cause of accidents on the job and at home. Thousands of people injure themselves each year because of improper lifting. Lifting too much at one time or lifting objects incorrectly can cause hernias or back injuries.

A smart worker learns to lift properly. This includes knowing how much, how often, how far, and how high you can lift. You should also know how much help you need and what mechanical aids are available to help you.

The first step is learning how to lift. Always remember that your legs are much stronger than your back. The key to lifting, then, is to use your leg muscles. When lifting an object from the floor, keep your arms and back straight. Bend your knees and lift with the powerful muscles in your legs.

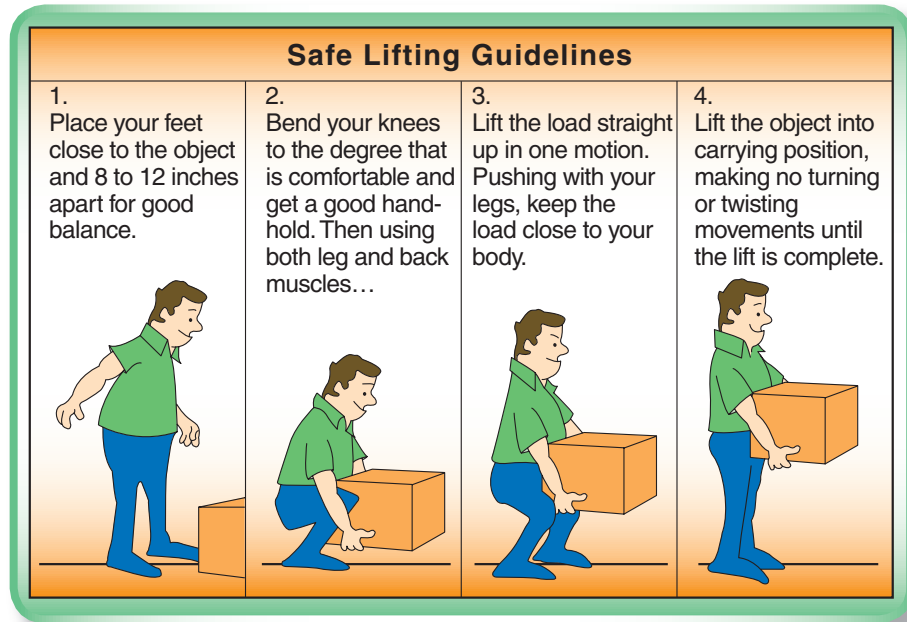
Know your limitations. Know how much you can safely lift. Seek help with loads in excess of your limit. Play it safe. Do not handle more than you can lift.

Use mechanical aids to save time and energy. Learn the proper procedures for using cranes, hoists, elevators, conveyors, and hand trucks. Failure to learn the safe operating procedures of mechanical aids can be more dangerous than manual lifting. Keep the following safety guidelines in mind when lifting:

- Lift with your leg and arm muscles.
- Keep your back as straight as possible.
- Always carry the load close to your body.
- Be sure you have good footing.
- Be sure you can see where you are going.
- Ask for help when necessary.
- Use mechanical aids to save your energy.
- Keep your work area free from tripping hazards.
- Work smarter, not harder. See 15-7.

15-7

Following proper lifting procedures can help prevent strains and back injuries.



National Institute for Occupational Safety and Health

Upkeep and Organization

Good upkeep and organization reduce hazards. A clean work area is a safe work area. Cluttered and messy areas can lead to accidents such as tripping, slipping, or being struck by falling objects.

Keep your work area clean. Always put your tools away after use. A tool on a ledge or overhang could slip and hit someone walking or working beneath.

Clean the floors regularly to remove any hazards that might cause slipping. Pick up scraps and wipe up spilled liquids. When mopping floors, always use safety cones or caution signs to warn of slippery conditions. Place the signs so they can be seen from all directions of approach.

Using Ladders Safely

Many jobs require the use of ladders. Ladders are useful aids, but they must be used with care. See 15-8. Choosing the right ladder for the job is important. Metal ladders should not be used near electrical equipment or high-voltage wires. Metal conducts electricity. Someone standing on or touching a metal ladder could be seriously injured or killed if electrical contact is made with the ladder.

**15-8**

To safely access high places, use a sturdy, securely positioned ladder and work within an arm's reach.

Always check a ladder before using it. Check to see that all the rungs are in place. Make sure the ladder is steady and strong enough to support you. Never use crates, boxes, or machinery as makeshift ladders. The chances of slipping and falling are too great.

Many people fall off ladders because they overreach. You should never stretch on a ladder. Instead, safely move the ladder within an arm's length of your work. Some other safety guidelines for using ladders are listed in the chart in 15-9.

Fire Protection

Fire is a threat to life and property. You must be on guard at all times to prevent fires. A fire at your workplace could put you out of a job. Even worse, someone could get seriously injured.

Each year, careless smoking and faulty electrical wiring and appliances account for nearly half of all fires. Other major causes include the following:



Your Reading

Why should factory and construction workers be especially aware of safety hazards?

15-9

Ignoring any of these guidelines could result in a serious injury.

flammable liquid

A liquid that can easily ignite and burn rapidly.



Community Connections

Invite a firefighter to class to explain the use of fire extinguishers and the procedures to follow in the event of a fire. Include how to use the classroom fire extinguisher in the demonstration. Prepare questions in advance.

fire triangle

A symbol representing the three elements that provide the necessary condition for a fire: oxygen, fuel, and heat.

Safety Guidelines for Using Ladders

- Be sure the ladder is in good condition.
- Make sure the ladder has firm footing and is correctly placed.
- Open a ladder to its fullest width and lock it in position before you climb.
- Do not work from a ladder placed in front of a door that could be opened. Lock or block the door first.
- Always face the ladder when climbing up or down.
- Always take one step at a time and use both hands.
- Do not lean off-balance to reach the work. Instead, move the ladder.
- Never stand on the top two steps of a ladder.
- Do not use objects to create a makeshift ladder.
- When working outdoors on a home, make sure an extension ladder extends three feet above the roofline.

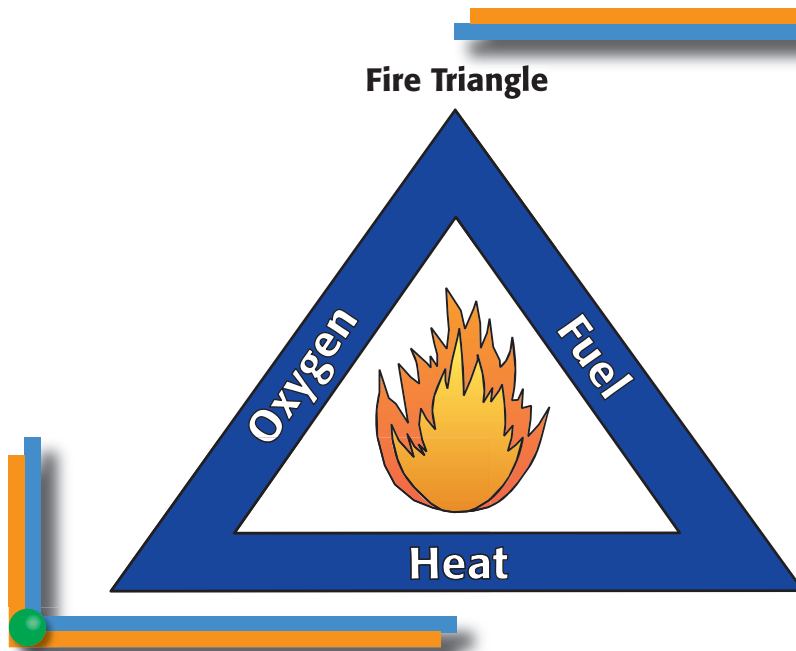
- faulty heating equipment
- grease buildup in kitchen ventilation hoods
- unattended open flames in kitchens and labs
- careless use of flammable liquids

A **flammable liquid** is one that can easily ignite and burn rapidly. Gasoline and solvents are flammable liquids.

Fire takes place when three elements are present—oxygen, fuel, and heat. If you remove any one of these three factors, you will extinguish the fire. Figure 15-10 illustrates the classic **fire triangle**. The triangle symbol represents the three elements required to provide the necessary condition for a fire.

By removing a factor, the triangle opens and you extinguish the fire. If you keep any one factor from joining the other two, you prevent a fire from starting. In the event of a fire, you need to know the following:

- the location of all fire alarms, fire extinguishers, and exits
- how to use a fire alarm pull-box
- how to use the telephone to report a fire—Many regions of the country use *911* for emergency police and fire calls.

**15-10**

Fire cannot result unless all three sides of the fire triangle—oxygen, fuel, and heat—are present.

Familiarize yourself with how to contact that outside line from a workplace phone. In the case of a fire, you would give your name and say, “I want to report a fire at XZY Company.” Give the building’s address and the exact location of the fire or smoke within the building.

- how to evacuate the building—To **evacuate** means to empty or vacate a place in an organized manner for protection. Fire drills are a must at work and at home.
- how to use a fire extinguisher on a small fire—The purpose of a fire extinguisher is to put out a small fire or keep a fire from spreading. For the most part, firefighting should be left to trained firefighters.

Additional fire prevention tips are listed in 15-11.

Health and First Aid

Your health affects your performance at work. The food you eat and the amount of sleep you get could affect your work. Fatigue on the job often leads to carelessness and accidents. The same holds true for lack of proper food. A simple rule to follow is *get plenty of rest and proper nourishment*.

evacuate

To empty or vacate a place in an organized manner for protection.



Your Reading

What could happen if there was a fire at your workplace?

15-11

The best way to assure fire safety is to prevent one from ever starting.



Making a Difference

Work with other classmates to design a newsletter for elementary school children about first aid and general safety. Obtain permission to distribute them in conjunction with giving a short presentation highlighting safety awareness.

first aid

Immediate, temporary treatment given in the event of an accident or illness before proper medical help arrives.



Your Reading

How does your health affect your performance at work?

Fire Prevention Tips

- Make sure smokers smoke only in designated areas.
- Keep your work area clean.
- Don't overload electrical wires. They can short-circuit and cause a fire.
- Never store oily rags and paper in open containers. They can build up heat and ignite.
- Keep containers of flammable liquids tightly closed and stored in cool areas.
- Always obey all safety rules. When in doubt, ask!

Observe simple hygiene rules. Always wash your hands after working with chemicals or before eating. Workers have transmitted harmful substances into their bodies because they failed to wash their hands before eating or smoking.

Where you eat on the job is important. Observe no-eating and no-smoking signs. Never eat where germs can infect your food and drink. Washrooms are not sanitary eating places, nor are most work areas.

It is best to stop working if you become ill on the job. You will not be working at top performance. Further, your illness may cause you to be careless and injure yourself or someone else. When ill, report to your supervisor. Your supervisor will make sure that you get proper medical assistance.

All injuries should be reported immediately. Get help fast. Report immediately for first aid, regardless of how slight the injury. If a coworker is injured, call for help. Remain calm and wait for proper medical assistance to arrive.

First aid is immediate, temporary treatment given in the event of an accident or illness before proper medical help arrives. Everyone should receive some formal first aid training. Essential lifesaving steps are listed in 15-12.

OSHA

The Occupational Safety and Health Act is a federal law that calls for safe and healthy working conditions. The law

First Aid

When someone is injured, follow these basic first aid steps until proper medical help arrives.

1. Make sure the injured person has nothing in his or her mouth or throat. Food or gum could prevent the injured person from breathing.
2. Stop any bleeding. Apply pressure over the wound. A tourniquet should be used only as a last resort.
3. Prevent shock. Keep the injured person flat on his or her back with the head low. Keep the person warm.
4. Call for medical help. Stay with the injured person until help arrives.
5. Remain calm. Move the injured person only when there is an immediate threat of further injury if he or she is not moved.

and the government agency that enforces it are both called **OSHA**. The Occupational Safety and Health Administration is the name of the enforcement agency.

As an employee, you should know what OSHA requires of employers and employees. The law was passed to reduce hazards in the workplace. Both employers and employees have obligations under the law.

Employers' Responsibilities

OSHA requires employers to provide workplaces free from safety and health hazards. It also requires them to know and follow the standards set forth in the law. Employers' responsibilities include the following:

- providing a safe place to work
- examining conditions in the workplace to make sure they meet safety and health standards
- making sure employees use safe tools and equipment
- requiring employees to use personal protective gear
- using color codes, posters, labels, or signs to warn employees of potential hazards
- keeping OSHA records of work-related injuries and illnesses

15-12

Knowing how to give basic first aid could help save a person's life.

OSHA

A government agency and a federal law that calls for safe and healthy working conditions. The Occupational Safety and Health Administration is the agency, while the Occupational Safety and Health Act is the law.



Community Connections

Interview a worker who is responsible for his or her company's compliance with OSHA regulations to learn: What special equipment, procedures, and protective clothing are required of the company? What happens if a company does not follow OSHA requirements? What types of enforcement action does the agency take?

- placing the OSHA poster in the workplace so employees know their rights and responsibilities
- allowing employee representatives to participate in safety inspections

Employees' Responsibilities

OSHA regulations also require employees to follow all rules, regulations, and orders issued under the law. Employees' responsibilities include the following:

- reading the OSHA poster at your job site
- knowing and following OSHA standards that apply to your work
- adhering to all of your employer's safety and health standards and rules
- reporting hazardous conditions to your supervisor
- reporting any job-related injuries or illnesses to your employer and seeking treatment quickly
- cooperating with OSHA compliance officers when they inspect conditions at your job site
- using your rights under the OSHA law responsibly
- wearing and/or using prescribed protective equipment. See 15-13.



Your Reading

What is OSHA and how does it affect you as an employee?

FLSA

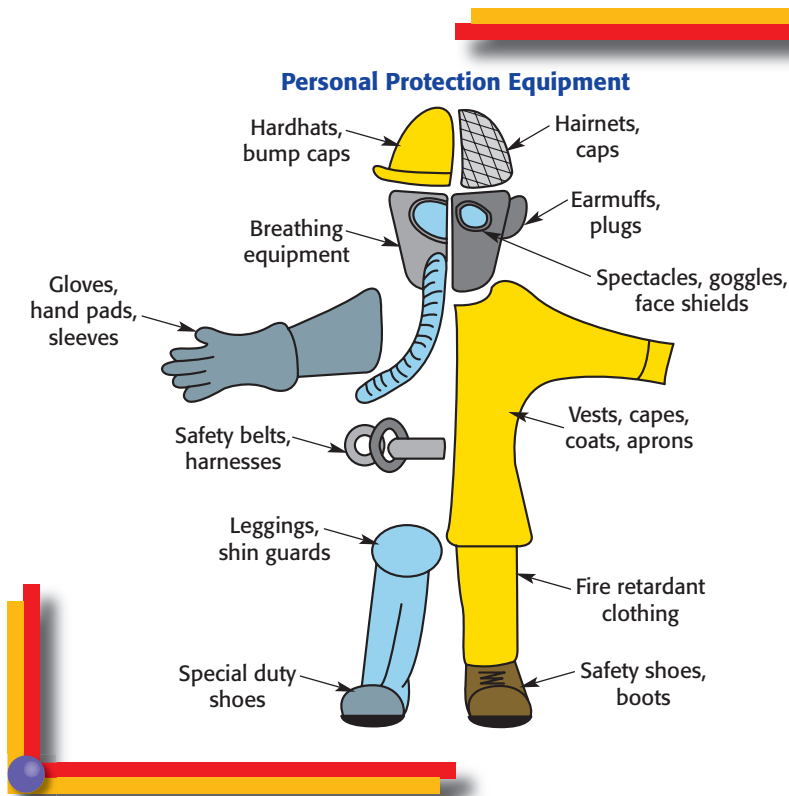
The Fair Labor Standards Act is designed to protect the educational opportunities of youth and prohibits their employment in jobs that could endanger their health and safety.

FLSA

The **FLSA** (Fair Labor Standards Act) is designed to protect the educational opportunities of youth, and it prohibits their employment in jobs that could endanger their health and safety. The Department of Labor is the federal agency that monitors child labor and enforces child labor laws.

FLSA prohibits minors under age 18 years old from working in any occupation that it defines as hazardous. Among those occupations are excavation, manufacturing explosives, mining, and operating many types of power-driven equipment such as saws and slicers.

Child labor laws vary from state to state. Regulations provide specific information on those occupations. Consult

**15-13**

OSHA requires workers to wear specific kinds of protective equipment based on the potential hazards of their jobs.

both the U.S. Department of Labor and state department of labor for more information. If a state law differs from the federal law, the stricter of the two laws applies to the employment of minor workers.

Workers' Compensation

As a worker, a workers' compensation law probably covers you. **Workers' compensation** is insurance against work-related accidents. Most American workers are covered by workers' compensation.

All 50 states have workers' compensation laws. These laws fall into two categories: compulsory and elective. Employers in the *compulsory* category must participate in the plan. Employers in the *elective* category may decide for themselves whether to participate. In the states where participation is elective, most employers provide coverage to limit their risk of negligence suits.

Unlike other forms of worker insurance, workers' compensation does not cost you any money through payroll



Your Reading

What is FLSA and how does it affect you as an employee?

workers' compensation

An insurance against loss of income from work-related accidents.



Your Reading

What is the purpose of workers' compensation?

disability

A temporary or permanent physical or mental condition that prevents an employee from working.

deductions. Employers pay the premiums for workers' compensation. If you are injured on the job, your workers' compensation will cover the following:

- cost of unlimited medical treatment, including doctors, hospital fees, and rehabilitation services
- payment of lost wages (in the form of a percentage of your regular wage)
- death benefits to your family (in the form of a fixed amount of income)
- insurance against occupational diseases caused by working conditions, such as lung diseases
- income benefits for disability

A **disability** is a temporary or permanent physical or mental condition that prevents an employee from working. Sometimes a temporary disability is called *short-term*, and a permanent disability is called *long-term*. If permanently disabled, you will receive payments for the rest of your life.

The specifics of workers' compensation laws differ from state to state. You can find out about your state's law by contacting your state labor department.

Disability Insurance

If you suffer a long-term disability, social security will pay you monthly benefits. See 15-14. Disability benefits from social security begin after a six-month waiting period. They are payable at any time before age 65, if you've worked long enough. To qualify for disability benefits, you must have worked at least 20 of the last 40 quarters.

Young workers who are disabled can also collect. Young workers may not have worked the entire 20 quarters, but they are still eligible in the event of long-term disability. Young workers' benefits are figured using a different scale. Young workers are eligible for disability benefits 18 months after they begin working.

If you become disabled and can't work, you should contact your local social security office. It will assist you with the needed information and forms.



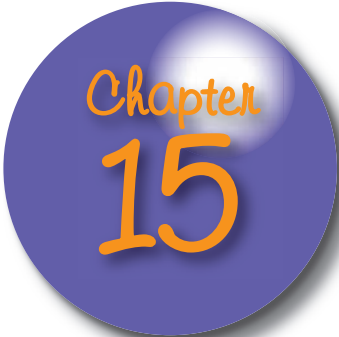
Your Reading

What is the purpose of disability insurance?



15-14

Disability benefits are paid to workers who cannot work for long periods of time due to job-related injuries.

A circular graphic with a blue background and a white glow effect. The word "Chapter" is written in a light blue, sans-serif font above the number "15", which is written in a large, bold, orange font.

Chapter 15

Summary

Safety is everyone's concern. You must avoid unsafe acts and correct unsafe conditions. You also must develop a proper safety attitude. Whether you work in an office or a factory, you must always practice safety when working with tools and equipment. Job safety also includes proper lifting, upkeep, organization, and correct use of ladders.

Fire is a threat to life and property. Do all you can to prevent fires. If a fire does occur, be prepared. You should know what to do and how to report the fire by phone.

You must be alert and healthy to do a job well and safely. Follow good health and hygiene practices. Immediately report any injury you suffer. If you have a chance to take first aid training, do so.

OSHA is a federal law and a federal agency. Both promote safe and healthy working conditions. OSHA places responsibilities on both employers and employees. The FLSA is designed to protect youth in the workforce. Insurance against workplace injuries is covered by workers' compensation. Workers can also be protected with disability insurance.

Reviewing Key Concepts

1. Describe five unsafe acts and five unsafe conditions that lead to accidents.
2. List five safety practices that should be followed by people who work in workplaces such as offices.
3. Describe five proper safety procedures to follow when working with machinery and tools.
4. Name five safety hints to keep in mind when lifting.
5. Give five safety rules to follow when using ladders.
6. Name the three sides of a fire triangle and explain the principle illustrated by it.
7. Explain how you would use the telephone to report a fire in your classroom.
8. List five steps in first aid.
9. Name five employer responsibilities and five employee responsibilities as a result of OSHA.
10. Of what importance is workers' compensation to employees?

Building Academic Skills

1. **Science.** Write the safety rules to follow in a science lab. Compare that list to the rules you must follow in a foods lab. In what ways are the lists similar?
2. **Health Education.** Review the first aid guidelines you have learned (or will learn) in health education or related classes. Make a list of everything you would do if a classmate next to you suddenly showed signs of a serious nosebleed.
3. **Science.** Demonstrate how mechanical devices are used to make the job of lifting easier. Show examples of how levers, pulleys, and other tools can be used to lift and control the movement of heavy objects.
4. **Science.** Talk with your science teacher to obtain a list of flammable liquids and learn if any are common household chemicals. Describe the proper storage for these chemicals and check your own home to see if they are being stored properly. Report any improperly stored chemicals and their fire potential to the head of your household.

Building Technology Skills

1. Use an Internet search engine, such as **google.com** or **hotbot.com**, to research safety attitudes. Select an article, read it, write a summary, and be prepared to share it with the class.
2. Conduct an Internet search on *workplace injuries*. Write a summary of the most frequently reported injuries as well as ways to avoid them. Also, investigate lighting and ventilation to determine if there are any special concerns in these areas.
3. Select a power tool or small electrical appliance that is used in your home and review the operating manual and/or use-and-care guide written for it. Bring the manual and/or guide to class to report the general safety guidelines listed in the front of the publication.
4. Prepare a PowerPoint presentation on how to avoid back problems when lifting objects on the job. Also, students are to locate pictures on exercises to strengthen back muscles. Show the best presentations to the class.
5. Conduct an online search to learn more about OSHA, the federal agency. Research its mission, activities, and enforcement role. Also, find out what an employer must provide to workers, according to OSHA regulations. Summarize your findings in a report to the class.
6. Search *workplace physical disability* online to gather the following statistics: the number of Americans this affects; the percentage of cases related to workplace accidents or injuries, the primary causes of workplace-related disabilities; and the top three jobs/industries in which workplace disabilities occur.

Building Career Knowledge and Skills

1. Read a newspaper story about a work-related accident. Write a paragraph summarizing the accident. Write a second paragraph summarizing what, if anything, could have been done to prevent the accident.
2. Research one aspect of first aid. Present your findings to the class in an oral report.
3. Write a report about the history of the OSHA agency, the workers' compensation program, or the social security program.
4. Demonstrate a safety tip to the class.
5. Invite a firefighter to speak to your class about fire protection. Be prepared to ask questions.
6. Interview a worker regarding safety and sanitation procedures that are in place at his or her place of employment. Describe the rules and regulations that must be followed to ensure workplace safety.

Building Workplace Skills

Participate in a Safety Awareness campaign at school. Working with two or three classmates, examine the school premises and determine what safety tips need to be emphasized to students. Decide as a team how to divide the work. Using a computer software program, create posters highlighting the safety message. Post them in appropriate locations around the school. Research the frequency of accidents—locally, statewide, or nationally—caused by the situation your posters address. Prepare a two-page report and briefly summarize your findings to the class.