CAL / OSHA: PERSONAL PROTECTIVE EQUIPMENT
FACT SHEET

LENGTH: 14 MINUTES

PROGRAM SYNOPSIS:
Our workplace is full of hazards, hazards that can hurt us or kill us. Controlling these hazards and preventing injuries is the purpose of making sure you are wearing the correct personal protective equipment, or PPE, for your job. Because when our body parts are exposed to certain hazards, there is a potential for bodily harm to occur. Knowing how to choose the correct PPE and knowing the correct way to use it will help get you home safely each night.

PROGRAM OBJECTIVES:
After watching the program, the participant will be able to explain the following:
- Ways to eliminate potential hazards in the workplace;
- How to correctly choose and be trained on your specific PPE;
- When you will need to use PPE while on the job;
- When you need to change out PPE, so you are properly protected.

INSTRUCTIONAL CONTENT:

BACKGROUND
- Our workplace is full of hazards, hazards that can hurt us or kill us.
- Controlling these hazards and preventing injuries is the point of our safety and health program.
- When our body parts are exposed to certain hazards, there is a potential for bodily harm to occur.
- Properly selecting and wearing personal protective equipment, PPE, can reduce or eliminate this exposure, prevent injuries and save lives.

ELIMINATING POTENTIAL HAZARDS
- However, the use of PPE is not the first choice in controlling hazards.
- The California Division of Occupational Safety and Health, better known as Cal OSHA, requires that a Hierarchy of Controls be followed as the best way to control hazards and reduce the risk of injuries and illnesses at work.
- This means, whenever possible, to first ELIMINATE the hazard altogether.
- If that's not possible, then SUBSTITUTE the hazard by replacing it with something else that's less dangerous.
- The next best option is to implement ENGINEERING CONTROLS, which isolate workers from the hazard and ADMINISTRATIVE CONTROLS can also reduce risk by changing the way work is performed.
- If these efforts are not sufficient enough to protect employees from hazards in the workplace, then personal protective equipment must be utilized.

WHAT IS PPE AND WHY WE USE IT
- Personal Protective Equipment, commonly referred to as PPE, is a worker's last line of defense against injury. It's often all that's left standing between you and a serious injury.
- Flying particles, chemical splashes, falling objects, sharp edges, heat or sparks, and exposures to loud noises, are all hazards that can cause serious injury.
- Personal protective equipment is designed to prevent injury from exposure to these types of hazards when they can't be controlled by other means.
- California OSHA requires employers to evaluate the job tasks and work areas where employees' hands, head, feet, eyes and other body parts are at risk for injury.
- The employer is responsible for determining the PPE necessary to provide protection from hazards.
- For this Personal Protective Equipment to be effective, all employees must understand how to select and use the appropriate personal protective equipment or "PPE."
- Always remember that wearing any required PPE is one of your most important job duties.
- There really are no good reasons for not wearing it; and the potential consequences just aren't worth it.

- You will be trained on the proper selection and use of the specific PPE required to perform your job duties.
- You must then be able to demonstrate how to properly use the equipment and understand which situations require its use.
- If you have any questions about the protective equipment needed to perform your job, make sure to ask your supervisor before you begin a task.

TYPES OF PPE: HARDHATS

- We will now discuss the various types of protective equipment available, starting at the top, with head protection.
- A hardhat is required in all situations where the head is at risk of injury from falling or moving objects or when it may come into contact with energized electrical parts.
- There are a variety of types and classes of hardhats. Always choose one that will provide adequate protection for the hazards you may encounter on your job.
- Type I hardhats protect against a direct impact to the top of the hardhat, while Type II hardhats protect against both side and top impacts.
- When working around electricity, be aware that Class G hardhats are rated for up to 2,200 volts while Class E hardhats are rated for up to 20,000 volts.
- Class C hardhats offer no electrical protection and should not be worn near energized parts.
- A hardhat is constructed of two parts: the inner suspension system and the outer shell.
- The suspension system is designed to absorb the force of a striking object. The hardhat must be able to withstand a 40-foot-pound impact.
- The suspension system is designed to face forward and should always be worn with the adjustment in the rear.
- You should keep your hardhat clean and inspect it for damage frequently. Be aware that the outer shell can become weak, soft or brittle from exposure to sunlight or certain chemicals.
- Be sure to check the webbing for damage and that it is properly secured inside the hardhat.
- If you find damage that cannot be repaired, remove the hardhat from service and get a new one.

TYPES OF PPE: HEARING PROTECTION

- Next, let's discuss the protective equipment required to protect our hearing from harmful noise.
- Many workers don't realize that noise can be a hazard because its damaging effects are not immediate. Hearing loss usually occurs gradually, over time. Many people are not aware that their hearing has been damaged until it's too late.
- Workers exposed to harmful noise should always wear their hearing protection to avoid permanently damaging their hearing.
- Earplugs are the most common type of hearing protection and are available in many sizes. Earplugs may be disposable or reusable.
- When installing disposable earplugs, first make sure your hands are clean. Then roll the plug in your fingers to compress it and insert it into your ear canal.
- Once inserted, hold your finger on the end of the plug for a few seconds. The plug will expand to fill your ear canal.
- To be installed properly the earplug must be inserted into and expand inside the ear canal.
- Pulling up on the top of the ear can help align the ear canal and make proper insertion easier.
- Another type of hearing protection is canal caps. Canal caps have flexible tips on a molded headband and only cover the opening of the ear canal.
- Canal caps provide less protection than earplugs, but they are easier to install and are good for jobs in which hearing protection must be taken on and off frequently.
- Earmuffs are another common type of hearing protection. Earmuffs completely cover the ears with a pair of cups connected by a headband. To be installed properly each muff must make a solid seal completely around each ear.
- In very loud environments, earmuffs can be worn over earplugs to increase the amount of noise reduction.
- The Noise Reduction Rating of earmuffs and earplugs indicates the level of protection they are designed to provide.
- For hearing protection to provide its rated noise reduction, it must be installed properly. Ask your supervisor if you are unsure.

TYPES OF PPE: EYE & FACE PROTECTION

- Next, let's turn our attention to eye and face protection.
- The Cal / OSHA regulations tell us that employees working in locations where there is a risk of receiving eye injuries

such as punctures, abrasions, contusions, or burns as a result of contact with flying particles, hazardous substances, projections or injurious light rays which are inherent in the work or environment, must be safeguarded by means of face or eye protection.

- Standard safety glasses provide the most basic protection for our eyes.
- However, job tasks in which small particles are generated or where hazardous liquids may splash or spray, more eye protection is required.
- Safety goggles will provide this additional protection.
- In addition to protecting our eyes, we frequently need to also protect our face.
- Grinding, chipping and other jobs that generate sparks or high-speed projectiles require the use of a face shield.
- A face shield is also required when you are at risk of being splashed by a hazardous liquid.
- Be aware that a face shield is only designed to protect the face and is not adequate to protect the eyes. Always wear appropriate eye protection underneath a face shield.
- Welders and workers whose jobs involve the use of lasers must protect their eyes from ultraviolet light.
- Laser operators must match their eye protection to the wavelength of the specific laser beam being used.
- Be aware that safety eyewear for lasers looks similar to "regular" safety glasses or goggles. Make sure you have selected the proper eye protection for the laser you plan to use.
- Before performing welding operations, select a lens appropriate for the intensity of the light to be produced. You should choose the darkest shade that still allows adequate vision for the job.
- Be aware that lenses lose their effectiveness over time and should be changed periodically.
- If auto-darkening lenses are used, make sure you fully understand how to adjust and operate your lens before use.
- When eye protection is required, and the employee wears corrective vision glasses, California OSHA allows three options for eye protection: 1) Safety spectacles with suitable corrected lenses, or 2) Safety goggles designed to fit over spectacles, or 3) Protective goggles with corrective lenses mounted behind the protective lenses.
- It is also important to note that Cal / OSHA prohibits the wearing of contact lenses in working environments having harmful exposure to materials or light flashes, except when special precautionary procedures, which are medically approved, have been established for the protection of the exposed employee.

TYPES OF PPE: HAND PROTECTION

- Because we use our hands to perform almost every task we do, they are constantly exposed to hazards.
- This is why it's so important to protect hands from hazards. There are a variety of gloves available to protect our hands. But keep in mind that no single type of glove is effective for all job tasks.
- Lightweight cloth gloves can protect our hands from minor hazards that can cause scrapes, scratches and blisters.
- Heavy leather gloves should be worn when handling materials with sharp edges, burrs, splintered wood and other items that pose cutting and puncture hazards.
- Gloves made of rubber, vinyl or neoprene protect against certain types of hazardous chemicals. Chemical workers can refer to a substance's Safety Data Sheet to learn which type of glove is recommended.
- Disposable rubber, plastic or latex gloves are effective when there is the risk of exposure to infectious materials or bloodborne pathogens.
- You must take the time to select the proper glove for each task and be aware that you must often switch the type of glove used when changing jobs.
- If you have any questions about whether a glove will protect against a certain hazard, you can check the glove manufacturer's recommendations or ask your supervisor.
- California OSHA also requires that gloves NOT BE WORN in certain situations. Their regulation states that: "Hand protection, such as gloves, shall not be worn where there is a danger of the hand protection becoming entangled in moving machinery or materials."
- This means that gloves should be removed when they could become caught and pulled into the danger zone of machinery or equipment.
- In addition, Cal / OSHA also prohibits the wearing of wrist watches, rings, or other jewelry while working with or around machinery with moving parts in which such objects may be caught, or around electrically energized equipment.

TYPES OF PPE: FOOT PROTECTION & OTHER TYPES OF PPE

- Another common type of PPE is foot protection.
- Practically every workplace contains some type of foot hazard.

- At a minimum, industrial workers should wear shoes or boots with soles that provide good traction, an enclosed toe box and solid leather sides and uppers.
- Many industrial operations require employees to wear safety shoes or boots with reinforced toe boxes, commonly called steel toed shoes and puncture-resistant soles.
- A reinforced toe box can prevent our toes from being crushed from falling objects and a puncture resistant sole can prevent sharp objects from penetrating into the bottom of our foot.
- In some heavy industrial environments, the top of the foot, known as the metatarsal area, requires additional protection. Some boots and shoes have built-in metatarsal guards for this purpose. Strap on metatarsal guards are also available.
- Other forms of PPE you may be required to wear on the jobsite include:
- Body protection, such as lab coats, arc rated clothing, or high visibility apparel; Personal Fall Arrest Equipment for working at heights; and other types of protective equipment.

CAL/OSHA, PPE & YOU

- In this program, we have provided an overview of common types of personal protective equipment and Cal OSHA's regulations requiring its use.
- We explained that PPE is considered the last choice in protection and that California OSHA requires that a Hierarchy of Controls be followed as the best way to control hazards and reduce injuries.
- Understand that when PPE is required, it is often all that stands between you and a serious injury.
- Always wearing PPE when required is one of your most important job responsibilities.

CAL / OSHA: PERSONAL PROTECTIVE EQUIPMENT

ANSWERS TO THE REVIEW QUIZ

1. b
2. e
3. a
4. c
5. b
6. b
7. b
8. b
9. d

CAL / OSHA: PERSONAL PROTECTIVE EQUIPMENT
REVIEW QUIZ

The following questions are provided to determine how well you understand the information presented in this program.

Name_____Date_____

1. PPE is the first choice in controlling hazards.

a. True
b. False

2. Which of the following are hazards that can cause serious injury?

a. Flying particles
b. Chemical splashes
c. Sharp edges
d. Exposures to loud noises
e. All of the above

3. Wearing PPE is one of your most important job duties.

a. True
b. False

4. Class G hardhats are rated for up to _____ volts.

a. 15,000
b. 4,700
c. 2,200
d. 88,000

5. You will realize that your hearing is being damaged with plenty of time to correct it.

a. True
b. False

6. Safety goggles provide the most basic protection for our eyes.

a. True
b. False

7. Lightweight cloth gloves can protect our hands from minor hazards that can cause scrapes, scratches and _____.

a. Contusions
b. Blisters
c. Burns

8 At a minimum, industrial workers should wear flip flops while working.

a. True
b. False

9. Which of the following are considered PPE to wear on the job?

a. Lab coats
b. Arc rated clothing
c. Personal fall arrest equipment
d. All of the above