

Personal Protective Equipment

What is Personal Protective Equipment?

- Personal protective equipment, or PPE, is designed to protect employees from serious workplace injuries or illnesses resulting from contact with chemical, radiological, physical, electrical, mechanical, or other workplace hazards.

- Besides face shields, safety glasses, hard hats, and safety shoes, PPE includes a variety of devices and garments such as goggles, coveralls, gloves, vests, earplugs, and respirators.

What are the Responsibilities of Employers?

- OSHA's primary PPE standards are in Title 29 of the Code of Federal Regulations (CFR), Part 1910 Subpart I, and equivalent regulations in states with OSHA-approved state plans, but you can find PPE requirements elsewhere in the General Industry Standards.

Employer Responsibilities

- For example, 29 CFR 1910.156, OSHA's Fire Brigades Standard, has requirements for firefighting gear.
- In addition, 29 CFR 1926.95-106 covers the construction industry.

Employer Responsibilities

- OSHA's general PPE requirements mandate that employers conduct a hazard assessment of their workplaces to determine what hazards are present that require the use of PPE, provide workers with appropriate PPE, and require them to use and maintain it in sanitary and reliable condition.

Employer Responsibilities

- Using PPE is often essential, but it is generally the last line of defense after engineering controls, work practices, and administrative controls.

Employer Responsibilities

- Engineering controls involve physically changing a machine or work environment.

Employer Responsibilities

- Administrative controls involve changing how or when employees do their jobs, such as scheduling work and rotating employees to reduce exposures.

Employer Responsibilities

- Work practices involve training workers how to perform tasks in ways that reduce their exposure to workplace hazards.

Employer Responsibilities

- Employers must assess the workplace to determine if hazards are present that require the use of PPE.

Employer Responsibilities

- If such hazards are present, employers must select PPE and require employees to use it, communicate PPE selection decisions to employees, and select PPE that properly fits workers.

Employers must also train employees who are:

- Required to wear PPE on how do the following:
 - Use PPE properly,
 - Be aware of when PPE is necessary,
 - Know what kind of PPE is necessary,
 - Understand the limitations of PPE in protecting employees from injury,
 - Don, adjust, wear, and doff PPE, and Maintain PPE properly.

Can PPE Protect Workers from Head Injuries?

Head Injuries

- Yes. Hard hats can protect your employees from head impact, penetration injuries, and electrical injuries such as those caused by falling or flying objects, fixed objects, or contact with electrical conductors.

Head Injuries

- Also, OSHA regulations require employers to ensure that workers cover and protect long hair to prevent it from getting caught in machine parts such as belts and chains.

How Can PPE Protect Workers from Foot and Leg Injuries?

Leg Injuries

- In addition to foot guards and safety shoes, leggings can help prevent injuries by protecting employees from hazards such as
 - falling or rolling objects
 - sharp objects
 - wet and slippery surfaces
 - molten metals
 - hot surfaces
 - electrical hazards

Does PPE Help Protect Workers from Eye and Face Injuries?

Eye and Face Injuries

- Yes. Besides spectacles and goggles, PPE such as special helmets or shields, spectacles with side shields, and face shields can protect employees from the hazards of

flying fragments,
large chips,

hot sparks,
optical radiation,
splashes from molten metals,
objects,

particles,
sand,
dirt,
mists,
dusts,
and glare.

What Can PPE Do to Protect Workers from Hearing Loss?

Hearing Loss

- Wearing earplugs or earmuffs can help prevent damage to hearing.
- Exposure to high noise levels can cause irreversible hearing loss or impairment as well as physical and psychological stress.

Hearing Loss

- Earplugs made from foam, waxed cotton, or fiberglass wool are self-forming and usually fit well.
- A professional should fit your employees individually for molded or preformed earplugs.
- Clean earplugs regularly, and replace those you cannot clean.

Should Workers Wear PPE to Help Prevent Hand Injuries?

Hand Injuries

- Yes. Workers will benefit from hand protection who are exposed to harmful substances through:
 - skin absorption,
 - severe cuts or lacerations,
 - severe abrasions,
 - chemical burns,
 - thermal burns,
 - harmful temperature extremes

**Why Should Workers
Wear PPE to Protect
the Whole Body?**

Whole Body Protection

- In some cases workers must shield most or all of their bodies against hazards in the workplace, such as exposure to heat and radiation as well as hot metals, scalding liquids, body fluids, hazardous materials or waste, and other hazards.

Whole Body Protection

- In addition to fire-retardant wool and fire-retardant cotton, materials used in whole-body PPE include rubber, leather, synthetics, and plastic.

When Should Workers Wear PPE for Respiratory Protection?

Respiratory Protection

- When engineering controls are not feasible, workers must use appropriate respirators to protect them from air contaminated with:

harmful dusts

fogs

fumes

mists

gases

smokes

sprays

vapors

Respiratory Protection

- Respirators generally cover the nose and mouth or the entire face or head and help prevent illness and injury.
- A proper fit is essential, however, for respirators to be effective.
- All employees required to wear respirators must first undergo medical evaluation.