

Personal Protective Equipment

A general overview

Hazards exist in every workplace and in many different forms. Your employer has the responsibility to assess your workplace and/or jobsite to determine which hazards can be eliminated by engineering or work practice controls, mitigated by administrative controls, or further protect you by providing personal protective equipment (PPE) when those other methods are not feasible.

Each industry typically has its own PPE requirements based on the hazards that are present. Here are examples of some commonly found personal protective equipment:

Eye and Face Protection

- **Safety glasses** have safety frames constructed with plastic or metal and impact-resistant lenses.
- **Goggles** are tight-fitting eye protection with complete coverage of the eyes and surrounding area. They provide protection from impact, dust and splashes.
- **Welding shields** protect against serious and sometimes permanent eye damage caused by the intensity of light or radiant energy produced by welding, cutting, or brazing. The shade of the lens needed for proper protection will vary based on the type of work being performed.
- **Face shields** cover the area from the eyebrows to below chin and ear to ear. They protect against dust and splashes or sprays of liquid, but are not impact-resistant. They are generally used in conjunction with safety glasses for full protection.

Head Protection

- **Hard hats** are divided into three industrial classes. All classes will protect against impact from flying or falling objects. However, each class differs in protection against electrical hazards.
 - **Class A** - impact resistant with limited voltage protection.
 - **Class B** - impact resistant with high-voltage and shock protection.
 - **Class C** - lightweight comfort and impact protection with no protection from electrical hazards.

Foot and Leg Protection

- **Safety shoes** will vary depending on industry, but generally include protection against impact from falling or rolling objects, excessive heat, and puncture wounds.
- **Toe guards** fit over the toes of regular shoes to provide protection from impact and compression.
- **Metatarsal guards** protect the instep area from impact and compression.

Hand Protection

- **Leather and canvas gloves** can protect against heat or cold, rough objects, and abrasions.
- **Fabric gloves** come in coated and uncoated. Coated gloves provide stronger protection against handling rough, sharp, or heavy materials. Uncoated protect against dirt, slivers, chafing, and small abrasions.
- **Chemical and liquid resistant gloves** are made from various kinds of rubber and plastic. Different blends of these materials provide for better performance against certain chemicals and hazardous liquids. These gloves are generally single-use.
- **Metal mesh gloves** are also known as cut-resistant and provide protection against deep cuts and abrasions.

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Personal Protective Equipment cont'd.

Hearing Protection

- **Single-use earplugs** are self-forming and disposable. They must be inserted correctly to provide proper protection
- **Pre-formed or molded earplugs** must be fitted by a professional. They can be reusable or disposable. Reusable plugs should be cleaned after each use.
- **Earmuffs** must have a perfect seal around the ear to be the most effective. Facial hair, glasses or facial movements, such as chewing, may reduce protection against noise.

Body Protection

- **Protective clothing** comes in a variety of materials, each to protect against specific hazards.
 - **Paper-like fiber** protects against dust and splashes
 - **Treated wool and cotton** adapt well to changing temperatures and provide protection against dust, abrasions, and rough surfaces. Can also be fire-resistant.
 - **Duck** is a closely woven cotton fabric and protects against cuts and bruises when handling sharp, heavy or rough materials.
 - **Leather** is primarily used to protect against dry heat and flames
 - **Rubber and plastic blends** are used to protect against chemical hazards. Each blend specifically protects against certain hazards.

It is your responsibility to properly wear and care for your PPE. Inform your supervisor or safety person if you need to repair or replace any damaged equipment, and ask for help if you are uncertain how to appropriately use the PPE you are given.

Which types of PPE are you required to wear for your job? Can you explain why? If you don't know the answers to these questions, be sure to talk with your supervisor or the person in charge of safety in your workplace. It is important for you to understand the exposures you face and how will be protected.

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