Personal Protective Equipment (Foot and Leg)

Safety Meeting Packet

Protect Your Workforce

Foot and leg injuries take many forms, and according to the Bureau of Labor Statistics, there were over 40,000 foot injuries requiring lost time from work every year between 2011 and 2015.

The type of foot or leg protection used depends largely on the types of hazards present in the workplace. To choose the appropriate protective equipment, employers should thoroughly assess their work environment and inform employees of the hazards present in the workplace.

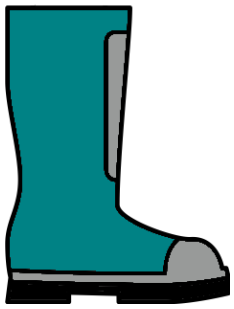
When performing the workplace assessment, consider:

- Cutting or handling heavy materials
- Rolling objects and equipment
- Walking on wet floors or cluttered walkways
- Working near live electrical equipment
- Working near hot surfaces or with molten metals
- Working with chemicals or other materials hazardous to the skin
- Working where there may be sharp objects in walkways

Types of Protective Equipment

Protective Equipment for Legs

- Leggings protect the lower legs and feet from heat hazards such as molten metal or welding sparks. Safety snaps allow leggings to be removed quickly.
- Combination foot and shin guards protect the lower legs and feet, and may be used in combination with toe guards when greater protection is needed.
- Leg protection made from cut-resistant material for chain saw operators.



Protective Equipment for Feet

- Metatarsal guards protect the instep area from impact and compression. Made of aluminum, steel, fiber or plastic, the guards are strapped to the outside of shoes.
- Toe guards fit over the toes of regular shoes to protect the toes from impact and compression hazards. They may be made of steel, aluminum, or plastic.

Footwear Requirements

Safety footwear must meet either ASTM F-2412-2005 and 2413-2005, ANSI Z41-1999, or ANSI Z41-1991 standards. All ANSI-approved footwear has a protective toe and offers impact and compression protection.

Although footwear may meet the requirements, the type and amount of protection is not always the same. Footwear meeting ASTM requirements will be marked or tagged in one of the shoes with the following information:

- The ASTM standard number (2413-05)
- The gender of the user (M or F)
- Impact resistance rating (I/75), with the number representing the number of foot-pounds
- Compression resistance rating (C/75), with the number representing the compression rating (50=1,750 lbs. of pressure, 75=2,500 lbs. of pressure)
- Metatarsal designation and rating (Mt/75), with the number representing the number of foot-pounds

The ASTM-required marking may contain additional information if the footwear is approved for one of four specific protections:

- Conductive (Cd) protects against static buildup.
- Electrical Hazard (EH) has non-conductive, shock-resistant soles and heels. It must withstand 18,000 volts at 60 hertz for one minute with no current flow or leakage current over one milliampere in dry conditions.

- Static Dissipative (SD) protects against hazards due to low footwear resistance and resistance to reduce the chance of electric shock. It must have an electrical resistance of 10^6 ohms to 10^8 ohms.
- Puncture-Resistant (PR) contains a puncture-resistant plate between the insole and outsole. The plate must flex 1.5 million times without cracking, have a minimum puncture resistance of 270 lbs., and meet ASTM B117-11 corrosion resistance testing.

Specialized Protective Shoes

Some shoes are specifically designed for an industry or hazard.

Electrically conductive shoes provide protection against the buildup of static electricity. Employees working in hazardous locations, such as explosives manufacturing facilities or grain elevators, must wear conductive shoes to reduce the risk of static electricity buildup on the body that could produce a spark and cause an explosion or fire. Foot powder should not be used in conjunction with protective conductive footwear because it provides insulation, reducing the conductive ability of the shoes. Silk, wool, and nylon socks can produce static electricity and should not be worn with conductive footwear. Conductive shoes must be removed when the task requiring their use is completed. Employees exposed to electrical hazards must never wear conductive shoes.

Electrical hazard, safety-toe shoes are non-conductive and will prevent the wearer's feet from completing an electrical circuit to the ground. These shoes can protect against open circuits of up to 600 volts in dry conditions and should be used in conjunction with other insulating equipment and additional precautions to reduce the risk of an employee becoming a path for hazardous electrical energy. The insulating protection of electrical hazard, safety-toe shoes may be compromised if the shoes become wet, the soles are worn through, metal particles become embedded in the sole or heel, or employees touch conductive, grounded items. Nonconductive footwear must not be used in explosive or hazardous locations.

In addition to insulating the feet from the extreme heat of molten metal, foundry shoes keep hot metal from lodging in shoe eyelets, tongues, or other shoe parts. These snug-fitting leather or leather-substitute shoes have leather or rubber soles and rubber heels. All foundry shoes must have built-in safety toes.

Caring for Protective Shoes

As with all protective equipment, safety footwear should be inspected prior to each use. Shoes and leggings should be checked for wear and tear at reasonable intervals. This includes looking for cracks or holes, separation of materials, broken buckles, or laces. The soles of shoes should be checked for pieces of metal or other embedded items that could present electrical or tripping hazards. Employees should follow the manufacturer's recommendations for cleaning and maintaining protective footwear.

Worker Training

It is recommended that employers educate their workers about workplace hazards that can cause foot or leg injuries, the types of protection available, and properly inspecting and caring for protective equipment.

- Review workplace hazards that can result in foot or leg injuries
- Identify the injuries that could result from each hazard
- Review the leg protections that are applicable to the work activities
- Review the foot protections that are applicable to the work activities, including both types of footwear and inserts or add-ons to footwear
- Review footwear identification markings and discuss the criteria required for the hazards in the workplace
- Review protective equipment schedule for inspection
- Review proper cleaning and maintenance of protective equipment

For additional information, please review OSHA Foot Protection Standard 29 CFR 1910.136.

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Safety Meeting Attendance Acknowledgement

Company Name _____

Department / Division _____

Meeting Date & Time _____ _____ ☐ AM ☐ PM

Meeting Location _____

Name & Title of Individual Conducting Meeting _____

Key Meeting Discussion Points / Important Reminders:

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Internal Procedures Reviewed:

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By signing this document, you confirm your attendance at the meeting and acknowledge the issues addressed above!

Employees in Attendance		
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Employees not present: _____

Suggestions/Recommendations to improve workplace safety and health: _____

Actions Taken: _____

Manager/Supervisor: _____ Date: _____

Disclaimer:

The information provided above was assembled using multiple resources. However, these materials do not contain ALL the information available regarding the required safety standards under local, provincial, state, or federal law for your industry.