

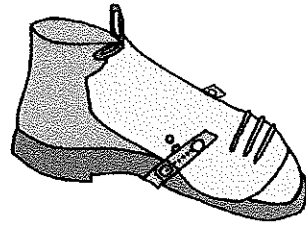
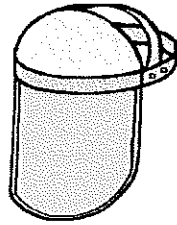
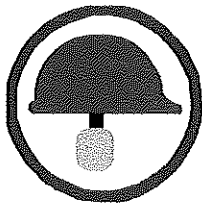
## Lesson Plan

**Course Title:** Personal Protective Equipment  
**Time:** Approximately 40 minutes  
**Objective:** To inform employees of the requirements of Personal Protective Equipment use.

**Teaching Aids Required:** -Overhead Projector  
 -Pointer  
 -Several different types of Personal Protective Equipment to show.

Slide #	Information	Time Per Area
1	<b>Personal Protective Equipment (PPE)</b>	1:00
2	<b>Introduction to Personal Protective Equipment</b> What is considered Personal Protective Equipment? Who do these requirements apply to? Why is it important? My Background	5:00
3	<b>Eye Protection</b> When do I need to wear eye protection? What are some typical occupations that require eye protection? How do I choose eye protection?	5:00
4	<b>Foot Protection</b> How do I choose foot protection? What type of foot protection do I need? What kinds of jobs might need foot protection?	5:00
5	<b>Head Protection</b> How do I choose head protection? Are there different types of helmets? Where do I really need to wear a helmet?	5:00
6	<b>Hand Protection</b> How do I choose hand protection? What do I need to know before I put on my gloves?	5:00
7	<b>Discussion</b> Please share experiences you have had in this area. Give two examples of where you witnessed actions that put employees at risk. Why are these critical Government rules? Who is ultimately responsible for effective use of PPE?	5:00
8	<b>Start videotape "Personal Protective Equipment"</b>	10:00

# Personal Protective Equipment (PPE)



## Introduction to Personal Protective Equipment

- What is considered Personal Protective Equipment?
- Who do these requirements apply
- Why is it important?
- My Background



What is considered Personal Protective Equipment? There are three categories of Personal Protective Equipment:

- Eye Protection
- Foot Protection
- Head Protection
- Hand Protection

Who do these requirements apply to?

- All employees working in an area where there is a chance of damage to the eyes, feet or head.

Why is this important?

- Close your eyes... now think about doing your work... think about your pass time activities... think about doing them without being able to see. You tell me why eye protection is important
- If you have ever hurt your foot in any way, maybe a broken toe or a sprained ankle. Did it have any effect on what you were able to do? Tell me about it.
- What works well if your head doesn't... Nothing does.
- Virtually everything you do requires the use of your hands.

My Background

- How long I have worked here
- My role and responsibilities
- How this standard impacts my job
- Personal reasons why this is important

## Eye Protection

- When do I need to wear eye protection?
- What are some typical occupations that require eye protection?
- How do I choose eye protection?



When do I need to wear eye protection?

- When exposed to eye or face hazards from flying particles, molten metal, liquid chemicals, acids or caustic liquids, chemical gases or vapors, or potentially injurious light radiation.

What are some typical occupations that require eye protection?

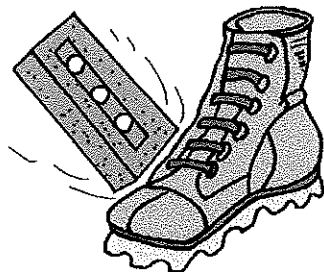
-Some occupations (not a complete list) for which eye protection should be routinely considered are: carpenters, electricians, machinists, mechanics and repairers, millwrights, plumbers and pipe fitters, sheet metal workers and tinsmiths, assemblers, sanders, grinding machine operators, lathe and milling machine operators, sawyers, welders, laborers, chemical process operators and handlers, and timber cutting and logging workers.

How do I choose eye protection?

-Ask your supervisor for assistance initially or to confirm your choice before using the eye protection for the first time. A general rule of thumb is that you choose eye protection that meets the ANSI Standard Z87.1-1968 and it must be appropriate for the hazard.

## Foot Protection

- How do I choose foot protection?
- What type of foot protection do I need?
- What kinds of jobs might need foot protection?



How do I choose foot protection?

- Selection guidelines for foot protection. Safety shoes and boots which meet the ANSI Z41-1991 Standard provide both impact and compression protection. Where necessary, safety shoes can be obtained which provide puncture protection. In some work situations, metatarsal protection should be provided, and in other special situations electrical conductive or insulating safety shoes would be appropriate.

What type of foot protection do I need?

-Safety shoes or boots with impact protection would be required for carrying or handling materials such as packages, objects, parts or heavy tools, which could be dropped; and, for other activities where objects might fall onto the feet.

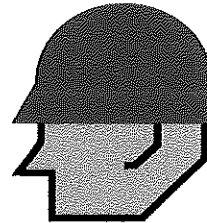
Safety shoes or boots with compression protection would be required for work activities involving skid trucks (manual material handling carts) around bulk rolls (such as paper rolls) and around heavy pipes, all of which could potentially roll over an employee's feet. Safety shoes or boots with puncture protection would be required where sharp objects such as nails, wire, tacks, screws, large staples, scrap metal etc., could be stepped on by employees causing a foot injury.

What kinds of jobs might need foot protection?

-Some occupations (not a complete list) for which foot protection should be routinely considered are: shipping and receiving clerks, stock clerks, carpenters, electricians, machinists, mechanics and repairers, plumbers and pipe fitters, structural metal workers, assemblers, drywall installers and lathers, packers, wrappers, craters, punch and stamping press operators, sawyers, welders, laborers, freight handlers, gardeners and grounds-keepers, timber cutting and logging workers, stock handlers and warehouse laborers.

## Head Protection

- How do I choose head protection?
- Are there different types of helmets?
- Where do I really need to wear a helmet?



How do I choose head protection?

-Selection guidelines for head protection. All head protection (helmets) is designed to provide protection from impact and penetration hazards caused by falling objects. Head protection is also available which provides protection from electric shock and burn. When selecting head protection, knowledge of potential electrical hazards is important.

Are there different types of helmets?

-Class A helmets, in addition to impact and penetration resistance, provide electrical protection from low-voltage conductors (they are proof tested to 2,200 volts).

Class B helmets, in addition to impact and penetration resistance, provide electrical protection from high-voltage conductors (they are proof tested to 20,000 volts).

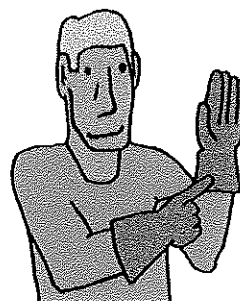
Class C helmets provide impact and penetration resistance (they are usually made of aluminum which conducts electricity), and should not be used around electrical hazards.

Where do I really need to wear a helmet?

-Where falling object hazards are present, helmets must be worn. Some examples include: working below other workers who are using tools and materials which could fall; working around or under conveyor belts which are carrying parts or materials; working below machinery or processes which might cause material or objects to fall; and working on exposed energized conductors. Some examples of occupations for which head protection should be routinely considered are: carpenters, electricians, linemen, mechanics and repairers, plumbers and pipe fitters, assemblers, packers, wrappers, sawyers, welders, laborers, freight handlers, timber cutting and logging, stock handlers, and warehouse laborers.

## Hand Protection

- How do I choose hand protection?
- What do I need to know before I put on my gloves?



Why would I wear hand protection?

-Gloves are often relied upon to prevent cuts, abrasions, burns, and skin contact with chemicals that are capable of causing local or systemic effects following dermal exposure. OSHA is unaware of any gloves that provide protection against all potential hand hazards, and commonly available glove materials provide only limited protection against many chemicals. Therefore, it is important to select the most appropriate glove for a particular application and to determine how long it can be worn, and whether it can be reused.

What do I need to know before I put on my gloves?

- It is also important to know the performance characteristics of gloves relative to the specific hazard anticipated; e.g., chemical hazards, cut hazards, flame hazards, etc. Other factors to be considered for glove selection in general include:

(A) The degree of dexterity required, the duration, frequency, and degree of exposure of the hazard, and the physical stresses that will be applied.

With respect to selection of gloves for protection against chemical hazards:

(A) The toxic properties of the chemical(s) must be determined; in particular, the ability of the chemical to cause local effects on the skin and/or to pass through the skin and cause systemic effects;

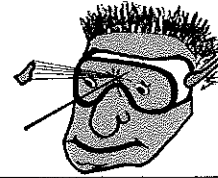
(B) Generally, any "chemical resistant" glove can be used for dry powders;

(C) For mixtures and formulated products (unless specific test data are available), a glove should be selected on the basis of the chemical component with the shortest breakthrough time, since it is possible for solvents to carry active ingredients through polymeric materials; and,

(D) Employees must be able to remove the gloves in such a manner as to prevent skin contamination.

## Discussion

- Please share experiences you have had in this area.
- Give two examples of where you witnessed actions that put employees at risk.
- Why are these critical Government rules?
- Who is ultimately responsible for effective use of PPE?



Please share experiences you have had in this area.

- close calls
- mishaps at other facilities
- news reports

Give two examples of where you witnessed actions that put employees at risk.

- Sawing lumber without eye protection
- Grabbing sharp objects without hand protection

Why are these critical Government rules?

- what makes this important
- what can happen if disregarded
- why is it just good business sense

Who is ultimately responsible for effective use of PPE?

- each person at this facility
- we are all responsible