Personal protective equipment

Your dress code for safety

Section I

Introduction

Introduction

- **The need for PPE**
- **Types of PPE**
- **Using PPE**

Section II

The need for PPE

The need for PPE

- **Hazard assessment**
- **PPE selection**
- **Employee training**

Hazard assessment

Physical hazards:

- **Falling, moving objects**
- **Sharp objects**
- **Temperature extremes**
- **Intense light radiation**
- **Electricity**

Hazard assessment

Health hazards:

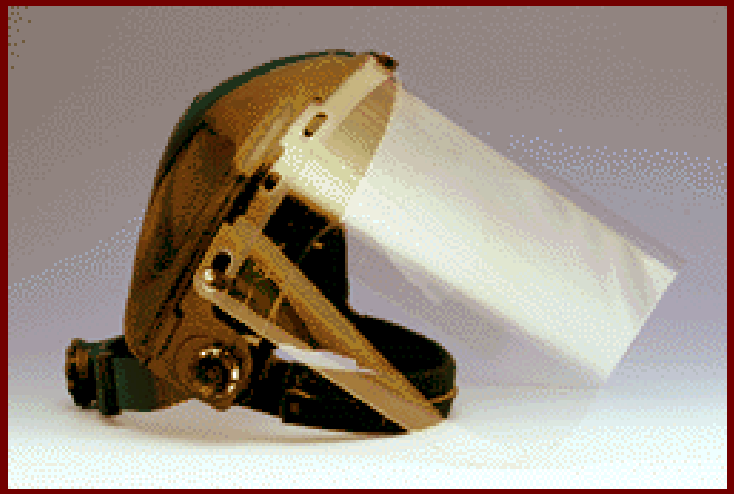
- **Dusts**
- **Chemicals**
- **Bloodborne pathogens**

PPE selection

- **Different types of PPE**
- **Different levels of protection**

PPE selection

- **Proper fit**
- **Different sizes**
- **Compatibility**



Employee training

- **When PPE is needed**
- **What PPE is needed**
- **How to wear, adjust PPE**
- **Limitations**
- **Care, maintenance, disposal**

Section III

Eye and face protection

Eye and face protection

When exposed to:

- **Flying particles**
- **Molten metal**
- **Chemical liquids, gases, vapors**
- **Radiation**
- **Infectious material**

Eye and face protection

Exposures can cause:

- **Irritation**
- **Abrasions**
- **Cuts**
- **Burns**
- **Bruises**
- **Fractures**

Eye and face protection

What to wear:

- **Safety glasses**
- **Goggles**
- **Laser safety glasses**
- **Welding shields**
- **Face shields**

Eye and face protection

What to wear:

- **ANSI-approved**

Eye and face protection

How to wear:

- **Proper fit**
- **Unrestricted vision**
- **No interference with other PPE**

Eye and face protection

Limitations:

- **Improper fit**
- **Corrective lenses**
- **Contact lenses**
- **Tinted lenses**

Eye and face protection

Care:

- **Safe storage**
- **Proper cleaning**
- **Disinfect shared PPE**
- **Replace scratched lenses**
- **Repair, replace damaged frames**

Section IV

Head protection

Head protection

When exposed to:

- **Falling objects**
- **Electrical hazards**
- **Fixed objects**

Head protection

Exposures can cause:

- **Impact injuries**
- **Penetration injuries**
- **Electrical shock, burns**

Head protection

What to wear:

- **Hard outer shell**
- **Shock-absorbing suspension system**
- **Resists penetration**

Head protection

What to wear:

- **ANSI Z89.1-1986**
- **Class A - limited voltage**
- **Class B - high voltage**
- **Class C - no electrical protection**
- **Type 1 - full brim**
- **Type 2 - peak over eyes**

Head protection

What to wear:

- **ANSI Z89.1-1997**
- **Class G - General - low voltage**
- **Class E - Electrical - high voltage**
- **Class C - Conductive - no voltage**

- **Type 1 - blow to top of head**
- **Type 2 - blow may be off-center**

Head protection

How to wear:

- **Adjust headband, suspension straps**
- **Chin strap**
- **Brackets, clips to attach PPE, accessories**

Head protection

How to wear:

- **Wear as designed, tested to be worn**
- **Backwards (mfg. approval)**
- **Sweatbands, liners for hard hats**

Head protection

Limitations:

- **Not total protection from any falling object**
- **Match Class to voltage**
- **Bump caps - Not ANSI approved**

Head protection

Care:

- **Inspect for dents, cuts, cracks, wear, damage**
- **Keep clean**
- **Don’t store in direct sunlight**
- **Repair, replace damaged parts**
- **Replace after an impact**

Section V

Foot protection

Foot protection

When exposed to:

- **Falling, rolling objects**
- **Electrical hazards**
- **Static electricity**
- **Hot substances**
- **Corrosive, toxic materials**

Foot protection

Exposures can cause:

- **Bruises**
- **Cuts**
- **Fractures**
- **Puncture wounds**
- **Electric shock**
- **Electrocution**
- **Burns**
- **Irritation**

Foot protection

What to wear:

- **Safety-shoes**
- **Puncture-resistant insoles**
- **Metatarsal guards**

Foot protection

What to wear:

- **Conductive**
- **Static dissipative**
- **Electrical hazard**

Foot protection

What to wear:

- **Foundry shoes**
- **Leggings, chaps**
- **Chemical-resistant boots**

Foot protection

How to wear:

- **Get a good fit!**
- **Wear when needed**
- **Avoid cross-contamination**

Foot protection

Limitations:

- **Toe-caps & metatarsal guards**
- **Puncture-resistance**
- **Electrical hazard: dry, clean**
- **Conductive: non-static socks**

Foot protection

Care:

- **Inspect before use**
- **Cracks, holes, separation**
- **Keep clean**
- **Replace damaged PPE**

Section VI

Hand protection

Hand protection

When exposed to:

- **Chemicals**
- **Hot, cold materials**
- **Electrical hazards**
- **Sharp, rough materials**

Hand protection

Exposures can cause:

- **Burns**
- **Electrical shock**
- **Cuts, abrasions, punctures**
- **Bruises, fractures**

Hand protection

What to wear - Gloves:

- **Rubber, plastic**
- **Leather**
- **Canvas, fabric**
- **Metal mesh**

Hand protection

What to wear - Rubber gloves:

- **Chemical resistance**
- **Conditions of use**
- **Thickness, grip**
- **Mfg. recommendations**

Hand protection

What to wear - Rubber gloves:

- **Natural rubber**
- **Neoprene**
- **Butyl**
- **Nitrile**
- **Others**

Hand protection

What to wear - Gloves:

- **Leather**
- **Canvas, fabric**
- **Metal mesh**

Hand protection

How to wear:

- **Good fit**
- **Layers**
- **Avoid contamination**

Hand protection

Limitations:

- **Use the glove for its intended use**
- **Many factors influence glove selection**

Hand protection

Care:

- **Inspect for tears, punctures**
- **Electrical protective glove tests**
- **Keep clean if re-used**
- **Replace damaged PPE**

Section VII

Summary

Summary

- **The need for PPE**
- **Types of PPE**
- **Using PPE**

Personal protective equipment

Questions?