

# Personal Protective Equipment (PPE): Head Protection

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By wearing appropriate head protection, you can avoid head injuries that can be life-changing or fatal.

## Hazards

Wear head protection when your employer or jobsite requires it. Your employer may communicate head protection requirements on signs at entrances to work areas, in job hazard analysis forms, risk and hazard assessment forms and safe work procedures and during training, pre-job briefings and safety meetings. You may also choose to wear head protection as an added precaution or to adapt to changing conditions.

Your head may be injured when it strikes falling items, surfaces, fixed objects or energized objects.

You may be required to wear head protection when you:

- Are in confined areas where (you may bump your head in crawl spaces, vaults and crowded areas)
- Must change elevations or work in excavations, trenches and pits (you may fall, or things may fall on you)
- Have people performing work overhead (materials may fall on you)
- Work near electrical hazards, such as exposed electrical conductors (you could be shocked or electrocuted)

Head protection may include hard hats and safety helmets. Bump caps (canvas hats or plastic shells) do not offer standardized protection and are not suitable to protect your head from the hazards above.

Head protection should meet applicable regulatory standards specific to your location.

The hard **outer shell** of the hard hat or safety helmet resists penetration. The **suspension system** absorbs impact. The **material** with which the hard hat or helmet is made may resist water, heat or electrical current. Check the manual and the label to learn about the features of each hard hat or helmet.

## Types and Classes

Hard hats are often divided into two types and three industrial classes. The United States and many other countries use the American National Standards Institute (ANSI) classification system. **ANSI type 1** head protection protects wearers from impacts to the top of the head.

**ANSI type 2** head protection protects wearers from impacts to the top AND sides of the head and has more impact absorption than Type 1.

**General** head protection provides good impact protection but offers limited voltage protection. It is for general service activities, such as mining, building construction, shipbuilding, forestry and manufacturing where we do not expect electrical exposure.

**Electrical** head protection provides limited protection against falling objects and shock and burns. Workers wear electrical head protection when they perform electrical work, such as utility services.

**Conductive** head protection is lightweight and designed for comfort, but it offers limited impact protection and no electrical protection.

The risk assessment will determine which head protection to use. Ask your supervisor if you have any questions. Check for a label inside the head protection for information about its type, class and features.

### **Use and Considerations**

Do not use head protection as a bucket to carry anything, as a support to set things on, as a seat or as a vehicular or sports helmet.

Make sure to use approved accessories that do not compromise the safety elements of the head protection.

Do not modify head protection by puncturing, engraving, marking or painting it. Avoid applying unnecessary stickers or decals on general and conductive head protection and never apply them on electrical head protection.

Only use **accessories and attachments** that are approved by the manufacturer and the risk assessment. Examples of head protection attachments include cold-weather liners, sweat bands, sun shields, padding, headlamps, earmuffs and face shields. Makeshift or unapproved accessories and attachments can reduce the effectiveness of head protection, such as reducing impact absorption, fit or vision. Check the head protection manual and label and ask your supervisor if you have questions about which accessories and attachments are acceptable and how to install them.

Before you put head protection on, check the manual and the label to determine how to wear and adjust it. Make sure the head protection is **oriented** correctly; the bill should be forward unless the label indicates otherwise.

Fasten the suspension system according to manufacturer instructions. Sweatbands should cover the forehead portion of the headband. Adjust the head circumference fit. The head protection should feel secure but not painfully tight. The head protection should not damage your skin; damage or pain indicate it is not sized properly. Wear a chin strap to prevent the head protection from slipping or being bumped off.

### **Care**

Inspect all components of head protection before each use. Look for signs of damage, such as dents, cracks or penetration. Headbands should be free of wear and stretching. The outer shell should be free of chalking or flaking and any gloss should be intact. These signs indicate damage caused by heat, chemicals, sunlight or radiation.

If you find any defects or damage, follow your company's procedures to report the issue and remove the head protection from service. If head protection sustains a heavy blow, remove it

from service. Follow the manufacturer's instructions regarding the frequency with which to replace head protection, their shells and suspension systems.

Regularly clean your head protection. Dirt can hide defects, and chemicals can damage components, making them weaker and reducing or negating their electrical resistance. Check the manual or label for instructions about how to clean head protection. Carefully inspect head protection after cleaning.

**DO:**

- Keep head protection clean and dry
- Store head protection away from damaging conditions
- Use designated racks or manufacturer-approved storage hooks
- Keep storage bags clean and uncontaminated

**Do NOT:**

- Store head protection in direct sunlight or hot areas/vehicles
- Shove head protection in toolboxes
- Store head protection with the shell side down (may collect contamination/debris)