

HAZARD ALERT

CPWR
THE CENTER FOR CONSTRUCTION
RESEARCH AND TRAINING

Preventing Head Injuries



Are you in danger?

Thousands of workers suffer head injuries each year and hundreds die.¹

The following are a few common causes of head injuries:

- ▶ Falling and hitting your head.
- ▶ Being hit by falling tools and materials.
- ▶ Coming in contact with overhead electrical wires or equipment.

You can see some head injuries, such as cuts, burns, and bruises.

But you cannot see a brain injury. These injuries happen when you are hit so hard that your brain bounces and twists inside your head. A **concussion** is a type of "traumatic brain injury."²

Sources: ¹Bureau of Labor Statistics, Injuries, Illnesses and Fatalities Databases (<https://www.bls.gov/iif/>); ²NIOSH, Traumatic Brain Injuries in Construction (<https://blogs.cdc.gov/niosh-science-blog/2016/03/21/constructiontbi/>); accessed 1/2020.

Signs of a concussion:

- ▶ Feeling dizzy
- ▶ A headache that gets worse over time
- ▶ Ringing in ears
- ▶ Blurred vision and dilated pupils
- ▶ Being dazed, confused or disoriented
- ▶ Vomiting or nausea
- ▶ Clear fluids draining from the nose or ears
- ▶ Convulsions or seizures
- ▶ Loss of consciousness
- ▶ Inability to awaken from sleep

See a doctor if you injure your head and have any of these symptoms. Get help if a co-worker suffers a head injury or has any of these symptoms.

A severe traumatic brain injury can be fatal.



Source: Mayo Clinic-Traumatic brain injury (<https://www.mayoclinic.org/diseases-conditions/traumatic-brain-injury/symptoms-causes/syc-20378557>)

Your employer is required to provide head protection:

- ▶ When there is "danger of a head injury from impact, or from falling or flying objects, or from electrical shock and burns."
- ▶ That meets the American National Standards Institute (ANSI) standards and is the right protection for the work you are doing.

What's the difference between a hard hat and a safety helmet?

- ▶ Both protect your head. Safety helmets have a chin strap and may have other safety features.



Hard hat
Photo courtesy of
Milwaukee Tools



Safety helmet
Istock.com/MediaTradingLtd

Source: OSHA 29 CFR 1926 Subpart E, 1926.100 – Head Protection (<https://www.osha.gov/laws-regs/regulations/standardnumber/1926/1926.100>)

Protect Your Head...

1 Always wear head protection

Your hard hat/safety helmet should have an ANSI marking on both the shell and suspension and be the right type and class for the job:

- ▶ **Type 1** reduces the force of impact only from blows to the top of the head.
- ▶ **Type 2** reduces the force of impact from blows to both the top and the sides of the head.
- ▶ **Class C does not** provide protection from electrical conductors.
- ▶ **Class G** reduces danger from exposure to low voltage electrical conductors of up to 2,200 volts.
- ▶ **Class E** reduces danger from exposure to high voltage electrical conductors of up to 20,000 volts.

Source: ANSI/ISEA Z89.1-2014 (www.safetysiteequipment.org/standard/ansisea-z89-1-2014/); accessed 1/2020.

2 Make sure it fits

Always wear head protection – a hard hat or safety helmet – that fits.

- ▶ Do not wear a cap, hood, or other headgear under your head protection. Headliners for cold weather that are designed to be compatible with the head protection can be used.
- ▶ Wear hearing and eye protection designed for use with your head protection.

3 Check for damage

Before using your hard hat or safety helmet:

- ▶ Check for cracks, tears in the suspension, dents or other signs of damage. **Do not** use a damaged hard hat or safety helmet.
- ▶ Clean your head protection with hot water and mild soap. Do not use solvents or other harsh chemicals, which can weaken your head protection.

Learn more about head injuries and how to prevent them:

- ▶ OSHA Head Protection – 1926.100
- ▶ CDC – Traumatic Brain Injury & Concussion



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