

# Eye Injuries in Construction

## Hazard Alert



In construction, more than 10,600 eye injuries each year force workers to miss work. Construction has a much higher rate of eye injuries than any other industry.

### The Hazards

Nails, tiny pieces of metal, splinters, and cut wire ends fly in the air. Mixing of cement, sawing, grinding, and chipping produce dusts and grit. So does heavy machinery moving across a site. Chemicals and welding arc can burn your eyes. If you are not careful, you can hurt your eyes or go blind.

### Protect Yourself

#### WHAT TO WEAR

**Always wear goggles or safety glasses that have side shields.**

If you use contact lenses, wear unvented goggles.

#### Always wear goggles:

- If there will be a lot of dust, liquids, or gases
- For overhead work.

#### Also wear a clear, plastic face shield for:

- Work with corrosive chemicals or metals that can splash
- Grinding, chipping, or using a wire brush on welds
- Flying particles
- Sandblasting (the respirator needed for sandblasting has a helmet with a strong shield).

**OSHA says your employer must provide** eye or face protection for flying particles, molten metal, chemicals, and welding or radiation.

Many safety glasses cost less than \$10. Goggles or safety glasses must fit over any prescription glasses you need and must fit you. Or you can get prescription goggles or prescription safety glasses. You can get fog-resistant glasses. Get lenses made of polycarbonate.

All safety eye wear must be marked **ANSI Z87**. ANSI, the American National Standards Institute, sets criteria for safety glasses.

**For a welding hood**, the number of the filter lens shade and the company that made it must be marked.

#### IF YOU WORK NEAR A WELDING JOB

**OSHA says there must be a flameproof screen to shield against UV rays around a welder to protect other people.** You can get welder's flash (burns) in your eyes. **Do not look at the welding arc** — or reflections of the arc — unless you wear a welding hood with the same lens as the welder's.

*(Please turn the page.)*

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\*More information is in the OSHA Construction Standards in the Code of Federal Regulations, CFR 1926.102.

## WHAT TO DO

- Use local-exhaust ventilation or fans to blow away fumes or dusts.
  - OSHA says there must be an eyewash station on your job if there are materials that could damage your eyes. Know where you can wash your eyes.
  - If a dangerous or irritating chemical gets in your eye, immediately start to rinse it out for at least 15 to 20 minutes straight -- and remove contact lens while you are rinsing. Use flowing tap water, if there is some on site. Get to a doctor or nurse as soon as you can.
  - If you get hit in your eye, hold a cold compress over it, but do not press on your eye. (You can put ice cubes in a plastic bag or clean cloth.) The cold helps keep down pain and swelling. If pain continues or your vision is blurry, get to a doctor right away.
  - If you get hit in the eye with flying metal, wood, or material from a power tool (like a drill or wheel), **OR**
  - If your eye is cut or punctured:
    - Do **not** wash out the eye
    - Do **not** push on the eye
    - Do **not** try to pull out anything that is stuck in the eyeball.
- Get to a doctor right away.
- If your eye hurts, go to a doctor — emergency room — right away.

### Filter lens shades for welding and flame cutting

3 things affect the lens number you need:

- Intensity of radiant energy produced by the work
- Background lighting (indoor or outdoor work)
- Type of filter lens (standard or reflective).\*

*You can always use a darker lens (a higher number).*

**Minimum standard lens shade number needed:**

Type of work	Indoors	Outdoors	Type of work	Indoors	Outdoors
Torch soldering	2	2	*Gas tungsten arc welding	11	10
Torch brazing	3	2	*Plasma arc welding	11	10
Flame cutting	4	3	*Plasma arc cutting	11	10
Gas welding	5	4	*Air/carbon arc cutting	12	11
*Gas metal arc welding	11	10	*Flux core welding	12	11
*Shielded metal arc welding	11	10			

\*Numbers are for standard filter lens. If reflective lens is used, it's OK to use one number lower: So, for shielded metal arc welding indoors, you can use **reflective** lens 10.

*Source:* Safety and Health Department, United Association.

For more information, call your local union, the Center to Protect Workers' Rights (CPWR) (301-578-8500 or [www.cpwr.com](http://www.cpwr.com)), the National Institute for Occupational Safety and Health (1-800-35-NIOSH or [www.cdc.gov/niosh](http://www.cdc.gov/niosh)), or OSHA (1-800-321-OSHA or [www.osha.gov](http://www.osha.gov)). Or check the website [www.elcosh.org](http://www.elcosh.org).

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