



048: Injury Protection – Eyes

Background

Electrical work is highly visual. Without your eyesight, you cannot do the job you were trained for.

It is the rare eye injury that wasn't preventable.

Eye injury prevention is painless, easy, and inexpensive.

Eye injuries are painful, difficult, and expensive.

Eye hazards and prevention

Flying particles, shrapnel from striking an object, grinding dust, elbows, tools, and other objects can easily destroy one or both eyes. You can easily protect your eyes by wearing standard safety glasses as soon as you arrive on the job site. A face shield may also be necessary.

Vapors, paint, chemicals, acids, caustics, splashing hazards and the like can easily cost you your eyesight. You can easily prevent this by wearing goggles.

Arcs from welding can burn your retina, and such damage is permanent. You can prevent such damage by averting your gaze and leaving the area or wearing the proper lenses if you must watch the weld.

PPE is a last line of defense, but one you should always use. Other methods of eye protection include machine guards, distance requirements, and work methods that reduce the likelihood of eye dangers.

When using a multimeter, connect and disconnect it one lead at a time to prevent an arc flash or arc blast.

Improper PPE

Wearing night vision lenses during the day increases the damage from an arc flash.

Wearing dark lenses in normal lighting simply reduces your ability to see what you are doing or where you are going, thus making you a hazard to yourself and others.

A face shield is not a substitute for safety glasses, nor is a pair of safety glasses face protection.

Glasses without side shields provide front-on protection, only. If you are walking through an area with eye hazards, these glasses are insufficient.

Safety glass care

Many people remove their safety glasses “to see better” or “because I’m doing panel work.” The implication here is that the glasses inherently reduce visual capacity. They do not. A projectile into the eye does reduce visual capacity. Any loss of visual capacity with the glasses on is due to improper care of the glasses.

Do not take your glasses on and off during the day. Leaving them on means they won't be rubbing on table tops, floors, and other abrasive surfaces. It also means they will be protecting your eyes full-time.

Clean lenses with lens cleaning papers, only. Wiping a lens on your shirt can easily scratch it.

Discussion leader duties for this session:

Your eye is about as tough as a boiled egg out of the shell. Bring a few boiled eggs to work. Shell one, and have crew members stick nails, pieces of copper wire, and other objects into it. Repeat with more eggs, if need be. Then put an undamaged egg behind a safety glass lens and ask crew members to try poking it with copper wire. Remind them how hard it is to puncture the egg. “This is your eye on safety glasses. Any questions?” Take the egg out from behind the lens and mutilate it with wire. This graphic demonstration drives home exactly how vulnerable people leave their eyes when they don't wear safety glasses.

Ask what it would be like to eat one meal blindfolded. You can also ask crew members how they plan to feed their families if they lose their eyesight. At a manufacturing plant, this single question moved safety glass compliance from 7% to 100%.

What this Safety Talk covers:

Protecting your eyes.

Discussion notes :

