

Tool Box Talk

Eye Protection

An employee asked his employer to pay for the damage done to his glass eye, which was broken when it was struck by flying debris at the worksite. When he was asked how he lost the eye in the first place he replied, "Oh, the same way..." A dark world awaits if something hits his other eye before he decides to use safety glasses.

Think of some excuse you have used (or heard others use) for not wearing your eye protection: they are not comfortable; they are dirty; they fogged up; you were going to be doing a hazardous task for just a few seconds and did not want to stop and put them on . . . It may be difficult getting used to eye protection, but have you tried getting used to a glass eye?

Eye Protection

What are the hazards in your shop, and what type of eye protection should be used?

Impact

The majority of impact injuries result from flying or falling objects, or sparks striking the eye. Most of these objects are smaller than a pin head and can cause serious injury such as punctures, abrasions, and contusions.

While working in a hazardous area where you are exposed to flying objects, fragments, and particles, primary protective devices such as safety glasses with side shields or goggles must be worn. Secondary protective devices such as face shields are required in conjunction with primary protective devices during severe exposure to impact hazards.

Heat

Heat injuries may occur to the eye and face when you are exposed to high temperatures, splashes of molten metal, or hot sparks. Protect your eyes from heat when workplace operations involve pouring, casting, hot dipping, furnace operations, and other similar activities. Burns to eye and face tissue are the main concern when working with heat hazards.

Working with heat hazards requires eye protection such as goggles or safety spectacles with special-purpose lenses and side shields. However, many heat hazard exposures require the use of a face shield in addition to safety glasses or goggles. When selecting personal protective equipment, consider the source and intensity of the heat and the type of splashes that may occur in the workplace.



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Chemicals

A large percentage of eye injuries are caused by direct contact with chemicals. These injuries often result from an inappropriate choice of personal protective equipment that allows a chemical substance to enter from around or under protective eye equipment. Serious and irreversible damage can occur when chemical substances contact the eyes in the form of splash, mists, vapors, or fumes. When working with chemicals, it is important to know the location of emergency eyewash stations and how to access them with restricted vision.

When fitted and worn correctly, goggles protect your eyes from hazardous substances. A face shield may be required in areas where workers are exposed to severe chemical hazards.

Dust

Dust is present in the workplace during operations such as woodworking and buffing. Working in a dusty environment can cause eye injuries and present additional hazards to contact lens wearers.

Safety goggles are the only effective type of eye protection from nuisance dust because they create a protective seal around the eyes.

Welding Protection

The intensity of visible light and radiant energy produced by welding operations varies depending on the task, the electrode size, and the arc current. Welding, cutting, and brazing operations require appropriate welding protection depending on specific welding operations.

Only filter lenses with the appropriate shade number will provide protection against optical radiation. Filter lenses must coincide to specific radiant energy exposure. Welding protectors are constructed of heat resistant material such as vulcanized fiber or fiberglass and fitted with a filtered lens to protect workers' eyes from burns caused by infrared or other intense radiant energy. These devices protect the eyes and face from flying sparks, metal spatter, and slag chips produced during welding, brazing, soldering, and cutting.

Welding helmets are secondary protectors intended to shield the eyes and face from optical radiation, heat, and impact. Use welding helmets *in addition* to primary protection such as safety glasses or goggles to provide adequate protection.

The protection of your sight requires three extremes: extremely easy, extremely important, and too often, extremely forgotten. Once you have lost an eye or your ability to see, it's too late. Protecting your eyes is the easiest thing to do, if you care about your eyes.