

Jason Mechanical Corp

Tool Box Safety Talk

Eye Protection

Your precious eyes are a marvel of engineering. Most of us take them for granted, as we do all our senses, until an accident, injury, or disease forces us to realize the miracle we lost or almost lost. Can you imagine a system that can take (absorb) light and convert it to electrical signals (by way of the 120 million rods and 6 million cones on the retina) and transfer these signals through an optic nerve, which has about one million fibers, directly in to the brain?

Most of us see the world in living color and with depth perception. The body itself does much to protect the eyes. There is a bony eye socket in the skull which protects the eye from many mechanical injuries. There are orbital fluids and tissues which cushion direct blows. Eyelids close reflexively from visual or mechanical stimuli. Eyes reflexively rotate upward with lids closing to protect the cornea. Tears can flush away chemicals and foreign objects. We all come with these safeguards. Sometimes, they are not enough. Eye protection is required by OSHA (and common sense) at the workplace when there is a possibility of eye injury. Eye injury is not confined to flying objects. Eye injury can be caused by bright light, dust, chemicals, heat, and literally, anything that can reach the eye. Different dangers require different types of protection. Federal law requires that all prescription glasses be made with impact-resistant lenses. Hardened lenses, through a tempering process, are extremely hard and resistant to impact and breakage. Safety lenses are similar to hardened lenses but are 1 mm thicker. Safety lenses are used in goggles where there is a danger of flying glass or chips of metal.

First Aid procedures, per the American Trauma Society, for the three major types of eye injury are:

FOREIGN OBJECT IN THE EYE: Have the victim pull upper eyelid over lower eyelid.

Run plain water over open eye. If object does not wash out, cover **both** eyes with a gauze dressing and seek medical help promptly. **DO NOT** rub the eye.

WOUND TO THE EYE: Apply loose sterile dressing over **both** eyes. Seek medical attention immediately. For bruising or "black eye", a cold compress or ice pack may relieve pain and reduce swelling. **DO NOT** try to remove any embedded object. **DO NOT** apply pressure to the eye.

CHEMICAL BURN: Flush immediately with water over an open eye for at least 10 minutes (20 minutes if alkali). It may be necessary to hold patient's eyelid open. Cover **both** eyes with sterile dressing. Seek medical attention immediately. **DO NOT** put anything but water in the eye.

Remember, an inexpensive pair of safety glasses can save your priceless eyesight.