By the Numbers: PPE Eye Protection

DID YOU KNOW?

Revealing statistics

Eye injuries in the workplace are very common. The National Institute for Occupational Safety and Health (NIOSH) reports that every day about 2,000 U.S. workers sustain job-related eye injuries that require medical treatment. However, safety experts and eye doctors believe the current eye protection can lessen the severity or even prevent 90 percent of these eye injuries.

A Bureau of Labor Statistics survey of workers who suffered eye injuries revealed that nearly three out of five were not wearing eye protection at the time of the accident. These workers most often reported that they believed protection was not required for the situation.

The US Bureau of Labor Statistics (BLS) estimates each day 1,000 employees receive injuries to their eyes.

- Nearly three out of five were not wearing eye protection.
- Flying objects or sparks caused 70 percent of incidents. Three-fifths of the objects were smaller than a pinhead.
- Chemicals caused one-fifth of the eye injuries.
- Other injuries include objects swinging from a fixed position or tools hitting the worker’s eye.

Computer Vision Syndrome, also referred to as Digital Eye Strain, describes a group of eye and vision-related problems that result from prolonged computer, tablet, e-reader and cell phone use. The average American worker spends seven hours a day on the computer either in the office or working from home.

KEEP IN MIND

Workplace eye protection is needed when the following potential eye hazards are present:

- **Projectiles** (dust, concrete, metal, wood and other particles)
- **Chemicals** (splashes and fumes)
- **Radiation** (especially visible light, ultraviolet radiation, heat or infrared radiation, and lasers)
- **Bloodborne pathogens** (hepatitis or HIV) from blood and body fluids

Workers experience eye injuries on the job for two major reasons:

- They were not wearing eye protection.

- They were wearing the wrong kind of protection for the job.

There are four things you can do to protect your eyes from injury:

- Know the eye safety dangers at your work.
- Eliminate hazards before starting work by using machine guards, work screens or other engineering controls.
- Use proper eye protection.
- Keep your safety eyewear in good condition and have it replaced if it becomes damaged.

Selection of protective eyewear appropriate for a given task should be made based on a **hazard assessment** of each activity.

Types of eye protection include:

- **Nonprescription and prescription safety glasses.** Although safety glasses may look like normal dress eyewear, they are designed to provide significantly more eye protection. The lenses and frames are much stronger than regular eyeglasses. Safety glasses must meet standards of the American National Standards Institute (ANSI). Look for the Z87 mark on the lens or frame.

  Safety glasses provide eye protection for general working conditions where there may be dust, chips or flying particles. Side shields and wraparound-style safety glasses can provide additional side protection.

  Safety lenses are available in plastic, polycarbonate and Trivex™ materials. While all four types must meet or exceed the minimum requirements for protecting your eyes, polycarbonate lenses provide the highest level of protection from impact.

- **Goggles.** Goggles provide protection from impact, dust and chemical splash. Like safety glasses, safety goggles are highly impact-resistant. In addition, they provide a secure shield around the entire eye and protect against hazards coming from any direction. Goggles can be worn over prescription glasses and contact lenses.
- **Face shields and helmets.** Full face shields protect workers exposed to chemicals, heat or blood-borne pathogens. Helmets are used for welding or working with molten materials. Face shields and helmets should not be the only protective eyewear. They need to be used in conjunction with safety glasses or goggles, so the eyes are protected when the shield is lifted.
- **Special protection.** Helmets or goggles with special filters to protect the eyes from optical radiation exposure should be used for welding or working with lasers.