

See Safely

- The Value of Safety Eyewear -

At Work, At Home and At Play

Written by Erica Camhi, Davis Vision Staff Writer



Every year, approximately 2.4 million eye injuries occur in the U.S., both in and outside the workplace. It's estimated that nearly 50,000 of those victims lost some degree of their eyesight. According to the American Academy of Ophthalmology (AAO), ninety percent (90%) of eye injuries could have been prevented by safety eyewear^{/1}. Eye injuries can happen anywhere – at work, at home or at play. Safety eyewear is the first and foremost form of protection against them.

Not only is it legally required for many U.S. industries, but awareness is growing of the need for safety eyewear outside the workplace, like while playing sports or doing home projects. Safety eyewear can protect from minor eye injuries like superficial corneal abrasions to the more serious, like retinal detachments, internal bleeding, and even permanent blindness.

At Work

Eye hazards exist within many workplace settings and the most common eye injuries are caused by particles or objects, such as glass or dust, striking or scraping the eye. While 61 percent of eye injuries occur in manufacturing, construction or trade jobs, they are also common in offices, hospitals and laboratories. The reason for three out of five workplace eye injuries is that victims were wearing the wrong eye protection or none at all.

The Occupational Safety & Health Administration (OSHA) imposes stringent safety eyewear requirements in all workplace environments that put a worker's eyes at risk. Despite this, about 700,000 job-related eye injuries occur each year, carrying an annual price tag of approximately \$467 million in direct and indirect costs, according to the Bureau of Labor Statistics. A well-implemented safety eyewear program protects not only a company's valued employees, but its own bottom line as well.

OSHA mandates that workplace safety eyewear complies with the standards set by the American National Standards Institute (ANSI). Different types of safety eyewear suit different purposes. The main types include:

- **Non-prescription and prescription safety glasses:** These are mostly used for protection from dust, chips or flying particles. Side shields and wraparound-style safety glasses provide additional protection from dangers in the periphery. Safety lenses are available in various materials, although polycarbonate lenses are regarded as the most effective due to their impact resistance. Although sturdier, safety eyeglasses look very similar to regular eyeglasses and can include a variety of optional features.
- **Goggles:** These provide a protective shield around the eyes to secure against many hazards, including impact, dust and chemical splashes. Goggles can be worn over prescription eyeglasses and contact lenses for extra security.
- **Face shields and helmets:** Usually for welding or working with molten materials, face shields and helmets protect from heat, chemical or bloodborne pathogens should be used in conjunction with safety glasses or goggles.

If a need for safety eyewear exists, employers must provide individually sized and fitted safety eyeglasses to each employee. They should also enforce its use.

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At Home

Even outside the work setting, an eye injury can occur. Actually, the majority of eye injuries happen at home, often during lawn work or in the kitchen, resulting in abrasions, lacerations, or other eye irritations. While awareness is increasing, only 35 percent of people surveyed by the AAO consistently wear their protective eyewear when doing home repair or projects². The AAO recommends every household to have at least one pair of ANSI-approved safety eyewear for home use. They protect from elements like sawdust, sparks, flying bits of metal or wood fragments that can dislodge and damage your eyes.

At Play

The sports field is another common setting for eye injuries, resulting in approximately 40,000 emergency room visits each year, according to Prevent Blindness America. Eye injuries can occur in most any sport but are common in baseball and racquet sports, which involve flying objects at high speeds. Many eye injuries also occur during contact sports like basketball and ice hockey. Safety eyewear is especially important in paintball. Paintball courts are hotbeds of devastating eye injury and require the highest level of safety precautions. Never take off your head shield in the playing area, even between games. In a study of paintball-related eye injuries, 81% percent required surgical intervention³.

Choosing the Right Safety Eyewear for you

Your eye care professional is well versed in the safety eyewear options out there, which can include prescription or non-prescription lenses. If your eyes don't require a prescription, it only takes a trip to the sporting goods store

or hardware store/home building center to get the right safety eyewear for you. There are lots of factors to consider when it comes to safety eyewear, both at home and on the field:

- All safety eyewear should be made of polycarbonate lenses which provide the highest level of impact protection (as well as ultraviolet protection, which is a plus on the sports field).
- Safety eyewear used at home must meet the requirements by ANSI and include the "Z-87" logo stamp.
- Safety eyewear used in sports should reflect the ASTM logo (this means it's approved by the American Society for Testing and Materials).
- Allow time to adjust to your safety eyewear.
- Keep the eyewear on at all times during the activity.

The eyes are complex and delicate organs. We don't always notice the risks that many day-to-day activities pose. Using safety eyewear can significantly decrease your risks of suffering a devastating eye injury.

1/ "Recent Data and Trends in the United States," American Academy of Ophthalmology Web site, 2008 (Jan. 2011).

<http://www.aao.org/newsroom/guide/upload/Eye-Injuries-BkgnderLongVersFinal-I.pdf>

2/ "Ophthalmologists Issue New Recommendation in Effort to Prevent Eye Injuries at Home," American Academy of Ophthalmology Web site, 2008 (Jan. 2011).

<http://www.aao.org/newsroom/release/20080630.cfm>

3/ "Devastating Eye Injuries Can Be Caused By Paintballs," Medical News Today Web Site, Jan. 2009 (Jan. 2011).

<http://www.medicalnewstoday.com/articles/135753.php>

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