

## Common Construction Eye Injuries and How to Prevent Them

By Rick Pedley | Wednesday, September 13, 2023



It's crucial for construction workers to stay vigilant on the job to avoid injuring themselves or others. Precision is key to completing a project on time and satisfying a client. But workers can't do their jobs if they can't see properly.

The average construction site has potential hazards that can irritate and injure the eyes. If an object makes contact with the naked eye, it could lead to permanent vision loss. Employers can protect workers from eye injuries by reducing their exposure to various hazards, educating them on how to protect themselves, and providing them with personal protective equipment designed for the task at hand.

## COMMON CONSTRUCTION EYE HAZARDS

Hazards vary based on the work being performed onsite. Before assigning tasks to the crew, employers should carefully assess the worksite and the nature of the tasks to identify potential injury risks.

**Airborne Debris:** The construction process often means grinding, cutting, sanding, and drilling into various natural materials, such as stone, wood and/or concrete, which releases dust and particulate matter into the air. Small bits of rock, sand and dirt can get into a person's eyes and cause irritation. Working indoors and in confined spaces increases the risk of exposure.



**Abrasions and Penetration:** The eyes are extremely sensitive to impact. Sharp objects, including drills, cutting tools and blades, can easily penetrate the eye's outer layer, often leading to permanent vision loss. Any contact with a foreign object could lead to a scratch or a cut in the eye.

**Chemical:** Various types of chemicals used in the construction process, including solvents, sealants and detergents, can irritate the eyes if they come in direct contact with one another. Chemical products should be handled with the utmost care.

**Sparks From Extreme Heat:** Welding and burning various materials can release sparks and ash into the air, which can burn a person's eyes even if closed. Hot surfaces can also damage the eye. Workers should maintain a safe distance until the materials or surfaces cool.

**Optical Radiation:** Certain tools that use lasers and ultraviolet or infrared light can also damage the eyes, leading to permanent vision loss and even total blindness. When welding, make sure you're equipped with a welding helmet that either has single, fixed lenses and those with variable shade lenses. Both come with a viewing lens with an ultraviolet and infrared filter to protect the wearer from the intensity of the light produced during the arc welding process. Always point optical radiation devices away from workers and only use them in secure locations.

## HOW TO PREVENT CONSTRUCTION EYE INJURIES

**Know the Risks:** Preventing eye injuries in the construction industry starts with knowing the kinds of hazards that may occur ahead of time. The environment can have a significant effect on the overall safety requirements. Companies are encouraged to test the air quality to see if debris or other hazards are present.

Knowing who has access to the workspace is also vital to creating a comprehensive prevention plan. For instance, some individuals may be more sensitive to these hazards or have specific vision requirements.

Certain types of equipment can increase the risk of eye injuries. Employers should research these items to learn more about the risks involved.

**Consider Alternatives:** Once the risks have been identified, the company should look for ways to reduce the number of risks present in the workspace. Tasks that spread debris and other hazards through the air should be performed outside whenever possible to

increase ventilation.

The company should also limit worker access to the space while these hazards are present by only allowing essential employees onto the scene.

Setting up a barrier between the worker and the hazard may also reduce exposure. For example, airtight tents and plastic dividers can stop debris from contaminating the rest of the worksite.

If the equipment presents a hazard, the company should consider using a different make and model or finding alternate ways to do the job with less risk.

**Choose the Proper Safety Gear:** Most construction sites cannot eliminate all hazards. That's why workers should wear protective eye gear when occupying the workspace. This can include safety glasses and goggles that have a secure seal preventing particles from slipping in. Some pairs come with special lenses designed to protect against certain hazards like optical radiation and lighting conditions.

The employer should provide a variety of styles and sizes for the workers to choose from. Many pairs are one-size-fits-all with an adjustable strap in the back that should fit the exact shape of each person's head or face.

Those who wear prescription glasses either need to wear protective gear that goes over their eyewear or safety equipment with prescription lenses.

This equipment should regularly be cleaned and inspected for damage before and after each use. Dust and debris can accumulate in the crevices of the eyewear, potentially making it unsafe to use. Disinfect the pair if it has been exposed to chemicals or other debris on the job. Scratches and scrapes can also limit visibility by blocking the user's field of view. If it is beyond repair, the gear should be swapped out for a fresh pair.

**Invest in Employee Training:** Companies should train workers on how to use this equipment. Everyone occupying the space should be aware of the hazards involved, understand when to keep their distance and alert their supervisors of any hazardous or dangerous situation.

Workers should also be familiar with the warning signs of an eye injury, so they can recognize the symptoms when monitoring their own health and the health of their colleagues.

If someone is exposed to a hazard, the company should have an emergency response plan to reduce the risk of injury. This may include washing the injured eye in cool water for several minutes and contacting the proper authorities. The manager should outline clear steps employees can take to reduce the severity of the injury based on the situation.

Eye injuries remain all too common in the construction industry, but they can be prevented through training and planning. Employers should use this information to ensure their workers are not putting themselves at risk in the field.

Share

Add to favorites

Print



Written by Rick Pedley - President and CEO, PK Safety

Contact Info: (800) 829-9580

Rick Pedley joined the family business in 1979. PK Safety, a supplier of occupational safety and personal protective equipment and manufacturer of its own new FR line GRIT, has been operating since 1947 and takes OSHA, ANSI, PPE and CSA work safety equipment seriously.