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# Protecting your Eyes at Work

## EYE CARE WITH CARE

### Protecting your Eyes at Work

Occupations with a higher risk of eye injuries include construction, manufacturing, mining, carpentry, auto repair, electrical work, plumbing, welding, and maintenance.

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**Eye** injuries in the workplace are unfortunately all too common. Safety experts and eye doctors assert that appropriate eye protection could have significantly reduced the severity or even prevented approximately 90% of these eye injuries.

The simple act of using the proper eye protection while on the job could potentially prevent thousands of eye injuries each year. Common workplace eye injuries can result from various factors, including chemicals or foreign objects in the eye, cuts or scrapes on the cornea, splashes with grease and oil, burns from exposure to steam, ultraviolet or infrared radiation, and flying wood or metal chips.

Moreover, certain professions, such as healthcare workers, laboratory personnel, janitors, and others, may be at risk of acquiring infectious diseases through eye exposure. Some infectious diseases can be transmitted through the mucous membranes of the eyes due to direct exposure to blood splashes, respiratory droplets generated during coughing, or from touching the eyes with contaminated fingers or objects. The two primary reasons workers experience eye injuries on the job are:

- Not wearing adequate eye protection.
- Wearing the wrong type of eye protection for the specific job.

Personal protective eyewear, including goggles, face shields, safety glasses, or fullface respirators, must be utilized whenever there is an eye hazard present. The choice of eye protection for a particular work situation depends on the type of hazard, the conditions of exposure, other protective equipment in use, and individual vision requirements.

### What are the potential eye hazards at work?

Potential eye hazards in the workplace that require protection include:

• Projectiles (e.g., dust, concrete, metal, wood particles)

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- Chemicals (splashes and fumes)
- Radiation (particularly visible light, ultraviolet radiation, heat or infrared radiation, and lasers)
- Bloodborne pathogens (e.g., hepatitis or HIV) from blood and body fluids.

Certain work conditions may involve multiple eye hazards, and the appropriate eye protection should address all potential risks, with the protector chosen to match the specific hazard.

#### The choice of safety eye protection depends on the hazards present:

- Safety glasses with side protection (side shields) are necessary when working in areas with particles, flying objects, or dust.
- Goggles are essential when working with chemicals.
- Special-purpose safety glasses, goggles, face shields, or helmets designed for specific tasks must be used when working near hazardous radiation sources, such as welding, lasers, or fiber optics.

#### In addition, employers must take proactive steps to create a safer work environment, which includes:

- Conducting a thorough eye hazard assessment of the workplace.
- Removing or minimizing eye hazards wherever feasible.
- Providing appropriate safety eyewear and mandating its use by employees.

### How can I protect my eyes from injury?

There are four key steps you can take to protect your eyes from injury:

- Familiarize yourself with the potential eye safety risks in your workplace.
- Prioritize hazard elimination before starting work by using machine guards,



work screens, or other engineering controls.

- Utilize proper eye protection in accordance with the specific hazards present.
- Maintain your safety eyewear in good condition and promptly replace it if it becomes damaged.

The selection of protective eyewear should be based on a hazard assessment of each activity.

#### Types of eye protection include:

- Non-prescription and prescription safety glasses: These glasses, meeting ANSI standards (look for the Z87 mark), provide significantly more eye protection than regular eyeglasses. Safety glasses are suitable for general working conditions where dust, chips, or flying particles may be present. Additional side protection can be achieved by using side shields and wraparound-style safety glasses. Safety lenses come in materials like glass, plastic, polycarbonate, and Trivex<sup>™</sup>, with polycarbonate lenses offering the highest impact protection.
- **Goggles:** Goggles provide protection against impact, dust, and chemical splashes. They are highly impact-resistant and create a secure shield around the

entire eye, safeguarding against hazards from any direction. Goggles can be worn over prescription glasses and contact lenses, making them suitable for protection in dusty environments or against flying objects and chemical splashes.

- Face shields and helmets: Full face shields protect workers from chemicals, heat, or bloodborne pathogens, while helmets are used in welding or working with molten materials. However, these should not be relied upon as the sole means of protective eyewear and should be used in conjunction with safety glasses or goggles. Wearing safety glasses or goggles underneath face shields also provides protection when the shield is lifted.
- **Special protection:** Specific tasks, such as welding or working with lasers, may require specialized eyewear with special

filters to shield the eyes from optical radiation exposure.

To ensure the adequacy of safety glasses, it is essential that they fit properly, and all eye protection devices must be maintained properly. Scratched or dirty eyewear can reduce vision, cause glare, and contribute to accidents

Protective effective eyewear is most when used correctly, in conjunction with other safety measures like machine guards, screens, and engineering controls. the appropriate protective Employing eyewear can significantly reduce the risk of eve hazards.

In case of injury, especially if you experience eve pain, blurred vision, loss of vision, or loss of field of vision, seek medical attention promptly.



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