



## EYE SAFETY IN THE WORKPLACE

### Introduction:

Eye injuries in the workplace are very common. Every day an estimated 1000 people suffer an eye injury at work. Approximately 10% of these injuries are severe enough to require days away from work to recover. While the financial cost of these injuries is substantial, no dollar figure can adequately reflect the personal toll these incidents take on the injured employee.

### Common Eye Hazards:

Research conducted by the Bureau of Labor and Statistics (BLS) has shown that almost 70% of eye injuries result from **flying or falling objects** striking the eye. Nearly three-fifths of these objects were smaller than a pin head and most of the particles were traveling faster than a hand-thrown item. The other significant source of eye injuries is **chemical contact**. BLS has estimated that chemical contact causes one-fifth of all eye injuries.

### Contributing Factors:

Failure to wear eye protection is the key factor in most eye injuries. Wearing the wrong type of eye protection (such as wearing glasses with no side shields) also contributes to a significant number of incidents.

### Protective Measures:

Placing emphasis on the following three measures will help to prevent eye injuries in the workplace:

- Identify all potential eye hazards by completing a thorough assessment of the workplace.
- Eliminate eye hazards through engineering controls whenever possible (such as enclosing processes, providing local ventilation, using shields, etc).
- Use proper eye protection if the hazard cannot be completely eliminated.

### Types of Eye Protection:

All protective eyewear used in the workplace must comply with ANSI Z87.1 standards. The primary types of eye protection available for use are as follows:

- **Safety Glasses:** Safety glasses are the most common form of eye protection. They often look like regular glasses, but are equipped with impact-resistant frames and lenses. Proper fitting of safety glasses is critical. The closer the eyewear fits to the user's face, the less potential exists for an object to reach the eye. A good fit is also important because it makes employees more likely to wear safety glasses.
- **Safety Goggles:** Goggles offer the most complete impact protection because they form a seal around the eye area. They are designed to prevent small dust particles and chemical splashes from reaching the eyes. There are three main types of goggles: **directly vented, indirectly vented, and non-vented.**



- **Directly vented goggles** offer protection from impact only and should not be used when a splash or vapor hazard exists.
- **Indirectly vented goggles** offer the same impact protection as direct vents, but are "capped" to allow for air movement while preventing the passage of liquid.
- **Non-vented goggles** have no venting of any kind and will offer protection against the passage of dusts, mists, liquids, and vapors.



It should be noted that **face shields** are not considered a primary form of eye protection. These devices are intended to shield the user's face from certain hazards and must always be used in conjunction with either safety glasses or goggles.



### Summary:

Eye injuries continue to be a major source of workplace injuries. Eye hazards should be eliminated at their source via engineering controls whenever possible. If eye protection is necessary, it should be selected based on the hazards present and properly fitted to the user.

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