The human eye is the organ which gives us the sense of sight, allowing us to observe and learn more about the surrounding world than we do with any of the other four senses. We use our eyes in almost every activity we perform—whether reading, working, watching television, writing a letter, driving a car, and in countless other ways. The eye is the key to seeing the world around us.

Most people probably would agree that sight is the sense they value more than all the rest. Each day about 2000 U.S. workers have a job-related eye injury that accounts for about $300 million in lost production time, workers compensation, and medical expenses. The majority of these injuries result from small particles or objects striking or abrading the eye. This training examines eye safety and ways to protect the vital organ in the workplace.

### What are some potential eye hazards?
Potential eye hazards are impact, heat, chemical, dust, and optical radiation. More detail is included in the chart below:

<table>
<thead>
<tr>
<th>Hazard</th>
<th>Hazard Examples</th>
<th>Image</th>
<th>Protection</th>
<th>Common Tasks</th>
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</thead>
</table>
| **Impact Hazards** | Flying objects such as large chips, fragments, particles, sand, and dirt | ![Image](image1.png) | - Safety Glasses  
- Goggles  
- Face Shields | Chipping, grinding, machining, masonry work, wood working, sawing, drilling, chiseling, powered fastening, riveting, and sanding |
| **Heat Hazards** | Anything emitting extreme heat | ![Image](image2.png) | - Safety Glasses  
- Goggles  
- Face Shields  
- Welding Helmets | Welding, torch soldering, brazing, pouring, casting, hot dipping, |
What type of eye protection is best for me?
The Occupational Safety and Health Administration (OSHA) indicates two main reasons for eye injury at work: not wearing eye protection or wearing the wrong kind of protection for the job. The eye protection chosen for specific work situations depends upon the nature and extent of the hazard, the circumstances of exposure, other protective equipment used, and personal vision needs. Eye protection should be fit to an individual or adjustable to provide appropriate coverage. It should also be comfortable and allow for sufficient peripheral vision. Selection of protective eyewear appropriate for a given task should be made based on a hazard assessment of each activity, including regulatory requirements when applicable. The most common types of protective eyewear are listed below:

- **Safety Glasses**: Safety glasses are primary protection intended to shield the eye from impact hazards. Safety glasses with side protection provide minimum protection and are for general working conditions. Prescription safety glasses are also available. OSHA’s eye and face protection standard requires that eye and face protection be American National Standards Institute (ANSI) Z87.1 certified. Look for the ANSI Z87.1 mark on the lens or frame.

- **Goggles**: Goggles provide higher impact, dust, and chemical splash protection than safety glasses. Goggles for splash or dust should have indirect venting. Direct vented goggles are used for less fogging when working with large particles.

- **Face Shields**: Face shields are intended to protect the entire face from hazards and are secondary protection used in conjunction with safety glasses or goggles for additional protection. They should NEVER be worn alone.

- **Filter Lenses**: There are various shades of filter lenses that help protect against specific levels of optical radiation in welding. A hazard assessment by EHSO will determine the appropriate shade for the job being performed.
• **Welding Helmets**: Welding helmets are heat and electricity insulated and fire resistant. They can have a lift-front or stationary window. Welding helmets are secondary protection used in conjunction with filtered lenses for adequate protection.

• **Laser Safety Lenses**: Laser work creates intense levels of heat, ultraviolet, infrared, and reflected light radiation. A laser beam could produce intensities greater than looking directly at the sun. For proper selection, lenses should protect against maximum laser intensity based on the particular job being performed.

**What can supervisors do to help out? BE PROACTIVE!**

• **Create a safe work environment**
  o Minimize hazards from falling or unstable debris
  o Make sure tools work and safety features (machine guards) are in place
  o Make sure workers know how to use tools properly
  o Keep bystanders out of hazardous areas

• **Evaluate safety hazards**
  o Identify primary hazards at your location
  o A hazard assessment should determine the risk of exposure to eye and face hazards, including those that may be encountered in an emergency. Contact EHSO at (404) 727-5922 to have a workplace hazard assessment conducted for your areas.
  o Be aware of the possibility of multiple and simultaneous exposures and provide the highest level of protection for each hazard

• **Make sure employees are wearing proper eye and face protection**
  o Select appropriate eye protection for the hazards
  o Make sure the employees eye protection is in good condition
  o Make sure the eye protection fits and will stay in place

• **Make sure employees are using good work practices**
  o Clean eyewear regularly
  o Do not rub eyes with dirty hands or clothing
  o Brush, shake, or vacuum dust and debris from hardhats, hair, forehead, or the top of the eye protection before removing the protection

• **Prepare for eye injuries and first aid needs in advance by having an eye wash or sterile solution on hand.**

**REMEMBER: HINDSIGHT EXPLAINS THE INJURY THAT FORESIGHT WOULD HAVE PREVENTED**
QUESTIONS FOR DISCUSSION:

1. Because everyone’s head is shaped differently, protective eyewear needs to be checked for fit.

   Answer: True or False

2. Faceshields can be worn without additional eye protection.

   Answer: True or False

3. You only have to wear eye protection when you feel like it.

   Answer: True or False

4. The lenses and frames are both stronger on ANSI-approved safety glasses than on regular glasses.

   Answer: True or False