How to improve workplace eye safety:

7 simple best-practice tips

The CDC reports 2000 workplace eye injuries per day. Almost $4 billion in lost wages and productivity were the result in a recent year, according to the Bureau of Labor Statistics. Seen simple-to-institute tips from research studies and safety professionals could make an immediate and lasting impact.

Eye Injuries: How do we solve a $300 million problem and prevent injury to 800,000 workers?

The Centers of Disease Control and Prevention reports that more than 2000 workplace eye injuries occur every day, and 100 of them result in one or more days of lost work.[1]

The cost of eye injuries to employers is over $300 million in lost production time, medical expenses, and workers compensation. A recent study suggests a 50% or higher reduction in the rate of eye injury and lost work time can each be achieved if personal protective eyewear is worn.[2]

In spite of statistical proof that protective eyewear prevents injuries, a Bureau of Labor Statistics survey of workers who suffered eye injuries found that nearly 60% were not wearing eye protection at the time of an accident.

Seven simple steps can make a difference.

Even in workplaces where PPE is mandated, compliance can be a persistent problem. How can safety professionals and managers increase it? Research studies and success stories from safety professionals suggest seven simple-to-institute best practices that could make an immediate and lasting impact.

1. Research confirms: *Provide effective antifog protection.* In a study published in *Accident Analysis Prevention Magazine*, focus group research with construction, manufacturing, service and retail workers showed:

- 100% of groups named fogging as a factor for not wearing PPE.
- Fogging was number one among vision-related reasons for PPE non-compliance.
- Over 55% of respondents suggested an antifogging solution to increase PPE usage.
- Antifog was suggested by more focus groups than incentives, warning signs, eyewear cleaning stations, or as a condition of employment.

The National Institute of Occupational Safety and Health and the Center for Construction Research and Training also include discussions of fog prevention in their training materials.

2. Experts advise: *comfort matters, offer multiple styles of eyewear.* The study above also found that participants in all focus groups recommended improving comfort and fit to increase PPE usage.[3] A large southwest U.S. utility company solved the problem by providing a dozen eyewear styles. Each featured a slightly different length or curve of earpieces, the fit of the nosepiece, frame width and so forth. This enabled each worker to find a design best for his or her face shape.

3. Check the fit of protective eyewear. Over 90% of eye injuries that occurred while workers were wearing eye protection were a result of particles or chemicals that entered around or under the protective shield.[5] Do workers need side shields or a face mask over eyewear? Does safety eyewear over prescription eyeglasses provide complete coverage?

4. Have easy-access to PPE, including eyewear straps, lanyards or cases. Accessibility was suggested by more than 80% of workers to increase PPE usage according to one study.[3] Especially in work environments where PPE isn't needed full-time, eyewear gets left on a workbench, in a truck, in the office. Help workers keep protection at their fingertips.

5. Cheap eyewear can cost you. Workers sometimes complain about low-quality plastic PPE scratching from dust, particles or simply cleaning. Leaving them on interferes with vision, taking them off increases injury risk. Spending a little more for quality safety glasses can be a safety plus.

6. Use older workers as eye safety mentors.

One study found that the older, more experienced workers are more likely to wear protective eyewear than their younger or more inexperienced counterparts. It suggests that younger workers don't have the experience to know the dangers, have not developed the eyewear habit and may appreciate reminders from their older peers.[3]

7. Regular training works. *Free resources make it easier.* Experts recommend regular training refreshers to reinforce eye safety messages, but developing materials can be daunting in a time-starved workplace. There are a number of resources for free materials and information, including the National Institute for Occupational Health and Safety, Prevent Blindness America, and the American Optometric Association.

Additional Resources

National Institute of Occupational Health and Safety: *Toolbox Talk*
http://www.cdc.gov/niosh/topics/eye/toolbox-eye.html

Liberty Mutual Research Institute for Safety:
Eyewear in the Workplace, Examining Barriers to Use
http://www.libertymutualgroup.com/omapps/ContentServer?c=cms_document&pagename=LMGResearchInstitute%2Fcms_document%2FShowDoc&cid=1239990441146

Centers for Disease Control and Prevention:
Eye Safety for Emergency Response and Disaster Recovery
http://www.cdc.gov/niosh/topics/eye/eyesafe.html

Centers for Disease Control and Prevention:
Eye Protection for Infection Control
http://www.cdc.gov/niosh/topics/eye/eye-infectious.html

Centers for Disease Control and Prevention:
Eye Safety Checklist
http://www.cdc.gov/niosh/topics/eye/eyechecklist.html

Centers for Disease Control and Prevention: *Eye Safety*
http://www.cdc.gov/niosh/topics/eye/

Prevent Blindness America
www.preventblindness.org

OSHA Safety & Health Topic: *Eye and Face Protection*
http://www.osha.gov/SLTC/eyefaceprotection/index.html

Electronic Library of Construction Occupational Health and Safety
http://www.elcosh.org/en/document/23/d000018/hazard-alert%253A-eye-injuries-in-construction.html

About Clarity Defog It Antifog

Defog It antifog cloths and liquid can keep optics fog-free up to all day with a single application. The formula is used by militaries around the world to prevent fogged eyewear in vision-critical situations. It's tested safe and effective on safety glasses, safety goggles, faceshields and eyeglasses.

The product has been rigorously performance tested. In one test, a lens treated with Defog It was held over constant hot steam for 60 minutes without fog forming. Similar products failed in as little as 5 minutes. In another test, lenses coated with Clarity Defog It were moved between cold and hot environments 100 times without fog forming.

Nanofilm, founded in 1985, is a global optical leader in lens care and optical coatings. Millions of people around the world use Nanofilm products, including Clarity Defog It™, Clarity Clean It™ and other optical products, as well as nanotechnology-enabled coatings.

1 Centers for Disease Control and Prevention, Workplace Safety & Health Topics, http://www.cdc.gov/niosh/topics/eye/

2 Lipscomb, H.J., 2000. Effectiveness of interventions to prevent work-related eye injuries. Am. J. Prev. Med. 18 (4S), 27–33.

3 Lombardi, David A., Verma, Santosh K., Brennan, Melanye J., and Perry, Melissa J., 2009. Factors influencing worker use of personal protective eyewear Accident Analysis & Prevention 41 (2009) 755-762.