

Safety Glasses

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Construction workers are susceptible to every type of eye hazard known to the safety industry, and too many of them suffer eye injuries every day: Impact injuries from wood and paint chips, concrete pieces, and the like are common. Less common are injuries from ultraviolet (UV) radiation, liquid splashes and infrared radiation.

In a handbook titled *Personal Protective Equipment*, the Occupational Safety and Health Administration states that many eye injuries occur because employees either wore improper or ill-fitting eye protection—or none at all. In fact, a recent OSHA study estimated that only 34 percent of workers in building and construction wear nonprescription safety glasses; just 22 percent wear goggles. Workers who get injured because they didn't wear eye protection usually say they thought it wasn't necessary.

“The U.S. Department of Labor estimates that 1,000 eye injuries occur every day in workplaces across America,” says Dave. “When you factor in medical expenses, lost time, and workers compensation costs from eye injuries, the total cost adds up to more than \$300 million. And most of these injuries can be prevented with the use of proper eye protection.”

Safe from splash and flash

Here is a quick rundown of the more common eye hazards on jobsites:

Splashes from such chemicals as highly toxic cleaning fluids, paints and adhesives are obvious hazards, says Dave Roll, vice president of marketing for H.L. Bouton Co. Inc., a protective eyewear manufacturer based in Wareham, Mass. Splash hazards can cause everything from momentary vision loss to blindness, Dave warns.

Perhaps one of the most insidious dangers of construction is working outdoors, where the eyes can be exposed to invisible UV light, according to the Sight and Hearing Association. Sunlight reflected off sand, snow or pavement can produce a burn on the surface of the eye. Like sunburn on skin, eye-surface burns are painful but temporary. Longterm UV exposure also is a risk factor for longterm damage to the eye, including cataracts and macular degeneration. While cataracts routinely are removed through surgery, there is no cure for macular degeneration, which eventually leads to blindness.

Infrared radiation caused by torch welding and cutting produces another invisible hazard that can damage the cornea and retina of the eye. In extreme cases, infrared radiation will blind a worker.

OSHA requires employers to ensure that employees have appropriate eye or face protection if they are exposed to flying particles, molten metal, liquid chemicals, acids or caustic liquids, chemical gases or vapors, potentially infected material or harmful light radiation.

Fortunately, protection from these hazards is relatively easy. Good-quality sunglasses block UV light and prevent longterm damage, according to the American Academy of Ophthalmology. For other kinds of dangers, the OSHA handbook lists the most common types of eye-and-face protection: safety spectacles; safety goggles; welding shields; laser safety goggles; and face shields. For most residential construction workers, the danger of eye injury comes from flying particles, such as sawdust, or from paints and adhesives. Appropriate eye protection for such hazards fall into the categories of spectacles and goggles--probably the most comfortable and least expensive equipment on OSHA's list.

“It's critical to educate your workers about the value of eye protection,” Dave says. “That's a directive from OSHA. When you distribute eye protection, make sure your workers understand which types of eyewear should be used for various types of jobs. If the employer takes eye protection seriously, so will the employees.”