SAFETY TALK

NORTH DAKOTA LOCAL TECHNICAL ASSISTANCE PROGRAM-UPPER GREAT PLAINS TRANSPORTATION INSTITUTE-NDSU

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EYE SAFETY

This session you will be able to:

- Identify potential eye hazards
- Prevent eye injuries with protective eyewear
- Use, maintain, and inspect proper protective eyewear

Key Points

- ~2000 eye injuries occur every day at work in the US
- Construction workers have one of the highest eye injury rates
- Particles of dust, metal, wood, slag, drywall, cement etc. are the most common source of eye injury to carpenters
- Even "minor" eye injuries can cause life-long vision problems and suffering–a simple scratch from sawdust, cement, or drywall can cause corneal erosion that is recurrently painful
- Hammering on metal which gives off metal slivers and the rebounding of the ordinary nail are two of the most common causes of vision loss in construction workers

Potential Eye Hazard Examples

- Hammering, grinding, sanding, and masonry work that may produce particles
- Handling chemicals may lead to splashes in the eye
- Wet or powdered cement in the eye can cause a chemical burn
- Welding leads to exposure to arcs and flashes (intense UV radiation) for welders, helpers, and bystanders
- Dusty or windy conditions can lead to particles in the eye
- Eye injuries can result from simply passing through an area where work is being performed
- Coworkers around or above you may generate the hazard

Eye Safety Strategy

- Use engineering controls (best) such as machine guards that prevent the escape of particles or welding curtains for arc flash protection
- Use administrative controls (good) such as making certain areas "off limits" unless that is your work assignment area or putting passage ways out of active work zones

- Use the proper protective eyewear (required, but doesn't remove all risk)

TYPES OF SAFETY EYEWARE

- Safety eye and face protection includes non-prescription and prescription safety glasses, clear or tinted goggles, face shields, welding helmets, and some full-face type respirators that meet the ANSI Z87.1 Eye and Face Protection Standard
- The safety eyewear must have "Z87" or "Z87+" marked on the frame and in some cases the lens

SAFETY GLASSES

- Safety glasses (spectacles) are commonly used as protection against impact and optical radiation
- Tinted safety glasses used in torch soldering must have a shade number (1.5-3) on the lens, but do not provide adequate protection for gas or arc welding which need shades 4 or higher
- Common tasks: sawing, hammering, and drilling

GOGGLES

- Goggles are stronger than safety glasses
- Goggles are used for higher impact protection, greater particle protection, chemical splashes, and welding light protection
- Goggles for splash or high dust protection should have indirect venting
- Goggles with direct venting (a mesh of small holes around the sides) tend to fog less, but should not be used with liquid or fine dust hazards
- Common tasks: sawing, chipping, grinding, masonry work, using a nail gun, pouring cement, and working with chemicals
- When goggles are used for welding make sure they are the proper shade # (the shade number is marked on the lens and shows how dark the lens is)

FACE SHIELDS

- Face shields are used for even higher impact protection and to protect the wearer's face in addition to the eyes
- Face shields should always be used over safety glasses or goggles
- Particles or chemicals can easily go around a face shield and the curve of the face shield can direct them into the eye
- Face shields are frequently lifted leaving the eyes unprotected without the safety glasses or goggles
- Common tasks: spraying, chipping, grinding

WELDING PROTECTION

- Welding helmets are needed for all arc welding requiring shade numbers 10-14
- Typically welding goggles can be used for gas welding or cutting with shade numbers 4-8
- Welding helmets should always be worn over safety glasses or goggles

SAFETY POLICY

- When must you wear safety eye protection
- What are the enforcement processes
- How and where do you get your safety glasses

- How do you get replacements
- What do you do if you go to a work station and the eye protection that usually hangs by the power tool is missing

INCREASE SAFETY EYEWARE USE AT YOUR JOB SITE

They would use their safety eye protection if:

- They had well-fitting, stylish, and comfortable eyewear
- They had a choice of safety eyewear
- They had both dark and clear lenses
- They had safety eyewear holders/straps to make safety eyewear always accessible and help prevent scratching
- The bosses always wore their safety glasses on site
- Their employer had a company policy that eye protection be worn on the job at all times
- The policy was enforced

Don't accept eye injuries as just a part of the job!

Content Source: National Institute for Occupational Safety and Health (NIOSH)