



Health and Safety Toolbox Talks

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TOOLBOX TALK:

Respiratory Health: Silica Dust

I. Introduction

- Review Dual Threat Toolbox Talk
- Educate participants on how to protect themselves from silica dust
- Discuss current dust controls on-site
- Increase awareness of the connection between silica dust, smoking, and silicosis

II. Brief Recap

2 min

1. Last time - Dual Threat Toolbox Talk
 - a. In the last toolbox talk, we talked about your respiratory health and the dual threat posed by silica dust and tobacco smoke. Construction workers are especially vulnerable to silica dust because building materials--such as concrete, masonry, tile, and rock--contain silica. Workers produce dust containing silica when they cut, grind, crush, or drill these construction materials. Often this harmful silica dust is invisible to the naked eye. The combination of tobacco use and silica dust amplifies the damage to your lungs and your overall health.
2. This time – How to protect yourself from silica dust

3 min

III. Dust Controls

1. First, I want to briefly go through the engineering controls that will reduce the amount of silica dust you breathe in while working. Most dust controls involve either water sprays or ventilation.
 - a. For example, you can use a water hose to wet dust before it becomes airborne. There are also saws that will add water to the blade. Drills are available that can add water through the stem or have dust collection systems. Blasting cabinets can control dust as well.
2. Question: On this site, what activities might generate silica dust?
 - a. Possible Answers: chipping or drilling rock or concrete; sawing or grinding concrete and masonry; crushing rock or concrete
3. Question: What dust controls are in place on this site?
 - a. Possible follow-up question: Are there other controls that you would like to have in place?
 - b. How often are the dust controls used? What would make it easier to use them?
4. While masks and respirators protect the individual tool operator from silica dust exposure, the rest of the worksite (and the surrounding community) is not protected from the dust. This is why the use of dust controls is essential to maintaining good air quality on a worksite. Also, OSHA sets enforceable permissible exposure limits (PELs) to protect workers against the health effects of exposure to hazardous substances like silica dust. PELs are regulatory limits on the amount or concentration of a substance in the air.
 - a. Respirators should only be used after dust controls are in place. If controls cannot keep dust levels below permissible exposure levels, then respirators should be used. Dust controls should be the primary method of protection to ensure the safety of all the workers onsite.

V. Close

Thanks to everyone for attending the toolbox talk today.

2 min