

# Silica

## Explain dangers

Silica dust and particles are a hazard on many jobsites.

Silica dust and particles are generated from

- Cutting and drilling concrete
- Sandblasting concrete
- Cutting and drilling masonry
- Grinding concrete and masonry
- Sanding drywall.

If we breathe silica dust and particles into our lungs often enough and long enough, we can get a disease called silicosis.

Silicosis is a disabling, progressive, non-reversible, and often deadly lung disease. You may show no symptoms in the early stages and severe breathing problems in the later stages.

Many workers with silicosis can develop other health problems such as tuberculosis and lung cancer. They can also develop complications such as heart disease.

## Identify controls

There are three basic ways to control silica dust on a site:

- 1. Prevent silica dust from getting in the air**
- 2. Remove silica dust from the air**
- 3. Prevent workers from inhaling silica dust.**

When you're doing a job that generates silica particles—or working close by—you need protection.

- Wear a particulate respirator if no other control methods are available. Minimum protection is a half-facepiece air-purifying respirator with an N95 filter. As silica dust increases, you'll need more protection.
- An N95 filtering facepiece respirator (i.e., dust mask) may be appropriate when doing short-duration tasks, when local exhaust ventilation is available on tools, or when working outside.

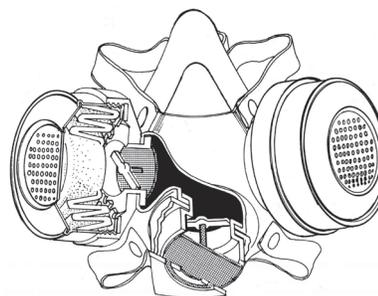
- Required personal protective equipment also includes eye protection and clothing that covers the body. Gloves or barrier cream is recommended for workers with sensitive skin.
- Use WATER whenever possible to control dust. Wet cutting and other wet methods can keep dust levels very low.
- If water isn't practical, attach a dust collector to the tool or equipment.
- Use a HEPA vacuum to clean the work area and your work clothes. Do not allow silica dust to accumulate. Never use dry sweeping methods or compressed air to remove dust.
- Turn off heating and air-conditioning units to reduce the spread of silica dust to other parts of the workplace.
- Warn other trades about the risk of silica exposure and limit entry into the work area. Post warning signs if necessary.
- Ventilate the area when cutting, drilling, and sanding.
- Always wash your face and hands before eating, drinking, smoking, and going home.

## Demonstrate

With your crew, review the safety data sheet (SDS) for silica. Pay special attention to handling and storage procedures and PPE requirements.

Safety data sheets must be kept on site for hazardous products. Show your crew where they're located.

Show them where to find a respirator when they need one. Demonstrate how to put it on.



**Half-facepiece Air-purifying Respirator**