

# HAZARD ALERT

**CPWR**   
THE CENTER FOR CONSTRUCTION  
RESEARCH AND TRAINING

# SILICA



## Are you in danger?

Silica can be found in many building materials, including...

- ▶ sand
- ▶ rock
- ▶ masonry
- ▶ concrete
- ▶ mortar
- ▶ and some paints

If you do the following to these materials...

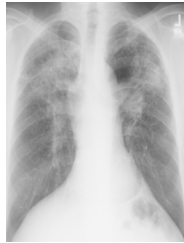
- ▶ abrasive or sand blast
- ▶ cut or saw
- ▶ jackhammer
- ▶ grind
- ▶ drill
- ▶ crush or demolish

Then the answer is **YES**.

The **dust** around you contains silica – and breathing it can be **deadly**.

## Why it's deadly

You can be in danger even if you don't see the dust.



When you breathe dust that contains silica, the tiny particles damage your lungs.

Silicosis can form in your lungs in as little as a few weeks of very high dust exposure. Even breathing small amounts over time can cause disease years later. By the time it gets hard to breathe, you are already sick and there is no cure for silicosis.

**Silica dust also causes lung cancer**, increases your chance of getting tuberculosis, and has been linked to COPD and other illnesses.

## Learn more about silica:

- ▶ **Work Safely with Silica** - a one-stop resource for information about exposures and controls – including a free planning tool ([www.silica-safe.org](http://www.silica-safe.org))
- ▶ **Occupational Safety and Health Administration's Final Rule to Protect Workers from Exposure to Respirable Crystalline Silica** (<https://www.osha.gov/dsg/topics/silicacrystalline/construction.html>)
- ▶ **The National Institute for Occupational Safety and Health (NIOSH) - Silica** (<https://www.cdc.gov/niosh/topics/silica/>)



## Protecting Yourself - Three Methods

### 1 Use Water

Water can keep silica dust out of the air – and out of your lungs. Use tools with water attachments to control dust at the source. Water can also keep dust down during activities like sweeping and demolition.



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### 2 Use a Vacuum

Use tools with vacuum attachments to capture the dust right where it starts. Dust is drawn into a hood or cover attached to the tool, through a hose, and into a HEPA-filter vacuum. The dust doesn't get into the air – or your lungs.



PHOTO COURTESY OF THE INTERNATIONAL MASONRY INSTITUTE

### 3 Wear a Respirator

When other controls don't work well enough and your work creates more silica dust than OSHA allows, your employer is required to have a full, written respiratory protection program. Respirators can protect your lungs from dangerous dust.



PHOTO COURTESY OF NIOSH

**NOTE:** Abrasive blasting and sandblasting cause extreme exposure. You must use a special Type CE respirator.

### If you think you are in danger:

Contact your supervisor.  
Contact your union.

Call OSHA

**1-800-321-OSHA**

### Find out more about construction hazards.

To receive copies of this Hazard Alert and cards on other topics call

**301-578-8500** or visit  
**www.cpwr.com**

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