

## Protect Your Employees from Harmful Silica Dust

### Background:

Each year, more than 200 workers in the U.S. die from a disease called silicosis. Hundreds of other workers are disabled from this progressive lung disease caused by breathing dust that contains tiny particles of crystalline silica.

These microscopic particles are often referred to as “shards” because of their abrasive interaction with the soft internal linings of the lungs. In response to this abrasion, the lungs surround the particles with scar tissue that interferes with the lung’s capacity for expansion and contraction. Lung function testing often confirms the presence of silicosis.

IMPORTANT! OSHA has issued a final rule for protecting workers who are exposed to crystalline silica in the workplace. See OSHA’s two-page informational [fact sheet](#) issued in March of 2016 on the final rule.

### Sources of Silica Dust:

Crystalline silica is found in concrete, masonry, sandstone, patio blocks, rock and paint. Activities that expose workers to harmful levels of silica dust include:  
Sawing, hammering, drilling, grinding, cutting or chipping  
Sweeping or blowing dry sand or construction worksite residues

### Silicosis from Silica Dust:

Damage to the inner lining of the lungs is irreversible. Once the damage is done, victims live with silicosis the remainder of their lifetime. The three stages of silicosis are:

- Chronic – Exposure for 10 or more years.
- Accelerated – Exposure for 5-10 years.
- Acute – Exposure for 2 weeks to 5 years.

### Symptoms of Silicosis:

Keep in mind that silicosis may not be formally diagnosed for years after the initial exposure. A chest X-ray may not detect lung abnormalities resulting from silica dust exposure for many years.

Chronic silicosis is the most common form of this preventable occupational lung disease. Symptoms include:

- Shortness of breath
- Severe cough
- Fatigue
- Loss of appetite
- Chest pains
- Fever

### Preventing Silicosis:

Follow these important prevention tactics:

- ✓ Always wear a respirator if you are working at a job site that could generate silica dust.
- ✓ Select a respirator that meets NIOSH-approved standards for silica dust.
- ✓ Fit-test your respirator to ensure comfort and protection from respirable silica dust.
- ✓ Use wet drilling or sawing methods.
- ✓ Remove excess silica-laden dust with a vacuum.
- ✓ Install a warning barrier around the immediate area where silica dust is being generated.
- ✓ Don’t eat, drink, or smoke in areas where silica dust is likely to be present.

- ✓ If possible, shower and change into clean clothes before going home at the end of a work day where silica dust was present.
- ✓ See a doctor if you have worked on job sites with a silica dust potential, especially if you have developed symptoms.

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