



Silicosis and Mining: Information for Workers

What is silica?

Silica is the common name for silicon dioxide, a white or colorless compound found naturally in sand, granite and many other types of rock. Quartz is the most common form of silica and is the second most common mineral in the earth's surface. Since it is so abundant, quartz is present in nearly all mining operations.

Why is silica exposure a health concern for people who work in mining?

People who work in mining may breathe in tiny bits of silica, and eventually, develop a serious lung disease called **silicosis**. There is **no cure** for silicosis. Lung damage from silicosis is permanent, but with proper precautions it is **preventable**. Silicosis usually develops after years of exposure to low levels of silica. However, it can develop much sooner (even within a few weeks) if you breathe in high levels of silica dust. Breathing in silica dust is also associated with lung cancer, tuberculosis, and airway diseases.

How can I be exposed to silica through mining?

Miners working at surface mines are at risk of being exposed to silica-containing dust. The most common mine activities where exposure may be elevated include **the drilling of rock, crushing, and loading of mine material**.

What can I do to limit my exposure?

Make sure you get and use equipment and clothing that protect you. Mine operators are required to provide and assure the use of appropriate controls during mining operations. As a miner you should:

- Use all available **engineering controls** such as dust collectors, wet drilling, drill platform skirts, and enclosed cabs.
- Use **respirators** to help maximize protection, especially when working in dust for short periods. When using a respirator, it is essential that it is appropriately maintained, equipped with new filters when necessary, properly fitted, and approved for use in silica-containing dust. In addition, to ensure a tight facial seal, you cannot have a beard or mustache.
- Change into clean clothes before leaving your worksite, and wash hands and face frequently.
- **Talk to your supervisor or Mine Safety and Health Administration representative** if you notice any unsafe working conditions.

What are some of the symptoms of silicosis?

Symptoms may not appear in the early stages, but can develop with time and usually get worse as the disease progresses. Symptoms may include:

- **Shortness of breath/difficulty breathing**
- **Severe cough and chest pain**
- **Weakness/fatigue**

If you experience any of these symptoms, be sure to **tell your doctor** about your mining work and potential silica exposure, so he or she may consider silicosis as a possible cause of your symptoms.

How can I find out if I have silicosis?

Miners must undergo a medical examination to determine the presence of silicosis. This is especially important for miners who have worked in areas with a high probability of exposure to silica-containing dust. Talk to your doctor about your silica exposure and the necessary medical screening. You or your doctor may also contact the **New York State Occupational Health Clinic Network** for additional information, or to be evaluated.

For more information:

The **Mine Safety and Health Administration (MSHA)** was developed to protect miners' safety and health. More information about your health, safety, and rights as a miner is available at: www.msha.gov

The **NYS Occupational Health Clinic Network** is a group of clinics, which specialize in occupational disease, injury, and prevention. For more information or to find a clinic located near you, visit: www.health.ny.gov/OHCN

The **New York State Department of Health, Bureau of Occupational Health and Injury Prevention** is committed to the prevention of workplace injuries, illnesses, and fatalities. Contact them for assistance on controlling workplace hazards at 518-402-7900.

Additional information for miners and mine operators on silicosis and silica dust exposure prevention controls is available at www.health.ny.gov/silicosis