

# Safety Talk

## A Silicosis Q and A

Centers for Disease Control (CDC) estimates that at least 1.7 million US workers are exposed to respirable crystalline silica. This exposure increases your chance of developing silicosis, a progressive, nonreversible lung disease. To help you better understand silicosis and your risk of developing it, here are some basic questions and answers.

### **What is Silica?**

Silica is a chemical made up of silicon and oxygen. It is very common in rocks like marble, sandstone and slate and can be the main component of sand. On a construction site it can be found in soil, mortar, plaster, drywall mud and shingles. When these materials are cut, broken, crushed, drilled, ground or sanded a fine silica dust is produced.

These particles are so fine that you can breathe them in without knowing it. Since these particles are so fine, they can find their way deep into the air sacs of your lungs.

### **What is Silicosis?**

When these fine silica particles get into the air sacs, which are the deepest part of the lung, they cannot be cleared out by mucous or coughing. The body then must coat the particles to try to keep them from damaging the delicate tissue of the lungs. These silica particles and their coatings form clumps and decrease your ability to get oxygen into your body.

Silicosis is progressive and nonreversible. This means that it will continue to get worse and once begun, the damage cannot be repaired. Silicosis can take anywhere from 10 to 30 years after first exposure to develop. Some common symptoms include shortness of breath, cough that is persistent and sometimes severe, fatigue, rapid breathing, chest pain, fever and a bluing of the skin from low oxygen levels.

### **Who is at Risk?**

Since silica is found in soil, marble, slate as well as materials commonly used on the jobsite like mortar, plaster and drywall mud, just about everyone on a construction site is at risk. You may be thinking, "I don't have to worry, I don't use any of those materials". Well, you're wrong- if anyone on your site is working with them, there is a good chance that there will be silica dust in the air that you breathe.

### **How is Silicosis Treated?**

Since there is no cure and any damage done can't be reversed, treatment is focused on relieving the symptoms. These may include cough suppressants, antibiotics, oxygen or a lung transplant. It's also important to stop further exposure to silica dust and other lung irritants, like tobacco smoking. The best way to treat silicosis is through prevention.

How Can You Prevent Silicosis?

The best way to prevent silicosis is to identify activities that produce respirable crystalline silica dust and either eliminate the activity (not usually a possibility) or control the dust.

Some suggestions from OSHA include:

- Use blasting cabinets and local exhaust ventilation
- Use water sprays, wet methods for cutting, drilling, sawing or grinding
- Substitute non-crystalline silica materials, when available
- Use respirators approved for protection against silica
- Don't eat, drink or smoke near silica dust
- Wash hands and face before eating, drinking or smoking

When dealing with silicosis, an ounce of prevention is worth a lot more than a pound of cure.

### **DISCUSSION QUESTIONS**

What is the major cause of COPD and why?

What are the two lung conditions that combine to cause COPD?

# MEETING / TRAINING ATTENDANCE ROSTER

COMPANY: \_\_\_\_\_

\_\_\_\_\_ SAFETY MEETING

JOB/DEPT: \_\_\_\_\_

\_\_\_\_\_ SAFETY TRAINING

DATE: \_\_\_/\_\_\_/\_\_\_

TIME: \_\_\_\_\_

TOPICS ADDRESSED: \_\_\_\_\_  
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## EMPLOYEE'S SIGNATURES

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EMPLOYEE SUGGESTIONS AND RECOMMENDATIONS: \_\_\_\_\_

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ACTION TAKEN: \_\_\_\_\_

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Supervisor's Signature

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Date

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Safety Coordinator's Signature

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Date