



Silica dust—**are you at risk?**

Many common construction work tasks generate harmful levels of crystalline silica dust if proper controls are not followed. When silica dust builds up in your lungs, you are at risk of developing a serious lung disease called silicosis, which can lead to death. Silicosis is not curable, but it is preventable. The more you know about silica dust, the better prepared you will be to adequately protect yourself.

What is silica?

Silica is the basic component of sand and rock. The best-known and most abundant type of crystalline silica is quartz. Some common silica-containing materials include:

- Concrete, concrete block, cement and mortar
- Masonry and tiles
- Brick, refractory brick
- Composite products such as Hardiplank
- Granite, sand, fill dirt, top soil
- Asphalt containing rock or stone
- Abrasive used for blasting

Construction workers may be exposed to silica when working with these materials.

Are you exposed to silica dust?

If you do one of the following activities, you are at risk of breathing silica dust:

- Chipping, sawing, grinding, hammering, and drilling of rock, concrete, or masonry
- Crushing, loading, hauling, and dumping of rock
- Sawing, hammering, drilling, grinding, and chipping of concrete or masonry structures
- Demolition of concrete or masonry structures
- Power cutting or dressing stone
- Facade renovation, including tuckpoint work
- Abrasive blasting and hydroblasting of concrete
- Clean-up activities such as dry sweeping or pressurized air blowing of concrete or sand dust
- Tunneling, excavation, and earth moving of soils with high silica content

How is silica disease prevented?

The key to silica disease prevention is to prevent the dust from getting into the workplace air. If you are exposed to silica dust, ask your employer to explain the dust controls that will be used to protect you.



Worker grinding concrete using local exhaust ventilation



Worker cutting concrete using water for dust control



Worker drilling concrete inside an enclosure equipped with a "negative air" unit

Encountering Silica Dust

As an L&I Inspector, you may encounter uncontrolled silica dust during an inspection. The information provided on the previous page of this Safety Talk will provide you with a basic understanding of silica dust and its risks.

If silica dust is being created through grinding, chipping, drilling, cutting, etc., for your own protection ensure an appropriate control is in place, such as:

- Local exhaust ventilation at the source
- Dust collecting devices
- Wet control methods

A personal respirator worn by the employee creating the dust will not protect you or others in the area!

If you observe uncontrolled silica dust at a worksite:

- Stop the inspection and leave the site.
- Advise that you will not complete the inspection while you are at risk of exposure to silica dust.

If you are unsure if harmful silica dust is present, it is best to err on the side of caution. Stop the inspection until more information is available or the situation has been remedied.

IMPORTANT!

If an incident occurs in which you are exposed to silica dust while on the job, report it to your supervisor. He/she will then document the incident and take any other necessary steps.

If you feel you have had a *significant* exposure you may also want to file a WorkSafeBC “information only” claim for record purposes.

If you have any questions on this topic, please speak to your supervisor.