

JULY

SAFETY TALK

Silica is the basic component in sand and rock. Because of this, it is the most common hazard on every worksite.

Silica is also used in construction materials, including:

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

Any activity that creates dust can expose workers to airborne silica. In municipal work, the most common ways to create silica dust are:

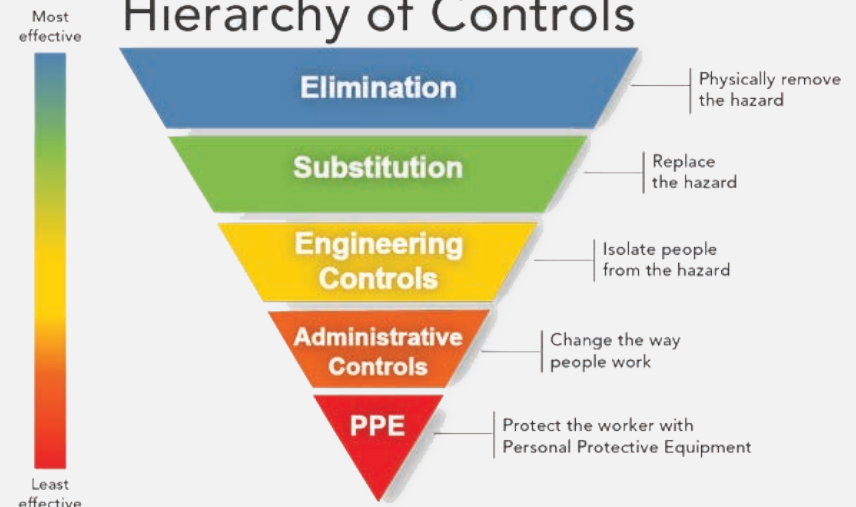
- Chipping, sawing, grinding, hammering, or drilling (cutting concrete sidewalks, roads)
- Crushing, loading, hauling, or dumping (any road or utility work)
- Building demolition (inspection staff could be exposed)
- Abrasive or hydro blasting (hydro-excavating in place of digging trench)
- Dry sweeping or pressurized air blowing (cleaning streets, sidewalks)
- Tunneling, excavating, or earth moving (utilities construction and repair)

SILICA - ARE YOU EXPOSED?

Inhaling silica dust can cause silicosis, an incurable lung disease that can lead to disability and death. It can also cause lung cancer, chronic obstructive pulmonary disease (COPD) and kidney disease.

The longer workers have been exposed to silica dust, the worse the symptoms will become. Symptoms include shortness of breath, severe coughing and weakness.

The best way to reduce the risk of silica exposure in the workplace is to perform risk assessments and establish controls following the **HIERARCHY OF CONTROLS**:



Elimination/Substitution – Likely not possible in the municipal environment as silica is present in dirt, sand, concrete, etc.

Engineering Controls – Local exhaust ventilation, use of water when cutting to prevent dust from becoming airborne.

Administrative Controls – Changing work practices, providing awareness and tools, creating safe work procedures.

Personal Protective Equipment – Least effective control, and when used, must have at least one other control in place.