



Taranaki Newsletter

Winter truly reared its ugly head these last couple of weeks, throwing everything it had at us. For some of you it was great to take the family to the snow, and for others it was an excuse to get rid of another cube of firewood. I have nothing but admiration for those of you working outside during these cold periods, and my only advice would be to please make sure to keep warm and stock up on vitamin C.

The topic for this month is exposure to **CRYSTALLINE SILICA**. A recent report commissioned by our colleagues in Canterbury shows that in the Canterbury Rebuild, workers performing selected at risk tasks are being exposed to levels of silica dust higher than national and international standards.

The main findings of the study show a lack of knowledge of the risks of silica dust, a lack of efficient dust suppression methods, and a large number of construction workers not using respiratory protection. There are some simple controls you can use to manage this potentially dangerous substance.

What do you need to know?

- **Silica** is common on construction sites, and is present in soil, sand, bricks, concrete, masonry, rock and landscaping materials. The dust created by cutting, grinding, drilling or otherwise disturbing these materials contains very small crystalline silica particles.
- The **risks** of exposure to crystalline silica include **silicosis** and **lung cancer**. Silicosis is a non-reversible and sometimes fatal lung disease. It has also been associated with COPD, or chronic obstructive pulmonary disease (including **bronchitis** and **emphysema**).
- Three factors increase the risk of developing silicosis or lung cancer:
 - the frequency and time of exposure
 - amount of crystalline silica inhaled
 - individual susceptibility

How to control exposure to silica

- Ask your supplier if the material you are using contains silica. They should be able to tell you the material's composition. Sometimes materials have a safety data sheet that outline the risks and controls required.

- **Dust suppression and extraction** is a key part of managing the risk. **Water** is normally used to suppress dust. (If dust suppression is not an option, use other controls).
- Make sure you wear the **right type of respirator** (mask) for the job:
 - a quality disposable or half-face P2 (minimum) particulate respirator
 - do a face-fit test to make sure it fits properly (one size does not fit all)
 - make sure you and your employees have been trained to use, check and clean the respirator
 - change the filters regularly
 - store the equipment in a clean, dust free environment
- Use a **vacuum** or **wet cleaning** to minimise dust generation (if you have to dry sweep, wear your respirator)
- **Health Monitoring**
 - If you or your employees are exposed to significant risks (crystalline silica) that can't be eliminated or isolated, and wearing personal protective equipment (respirators) is the only way to minimise the risk, you must monitor to see if your controls are working. This can be done by annually monitoring you and your employees' health.
 - **Base-line checks:** It is always good to know your employees' state of health before they start working for you. It provides you with a value to measure from when you assess their health.
 - **Annual health monitoring** can be carried out by an occupational health service provider. The health service provider can complete a **lung function test** and do a basic medical check-up and enquiry regarding the employees' state of health. If concerns are raised, a doctor can request chest X-rays.

Annual health monitoring not only gives you comfort that your risk controls are working, but it serves as a benefit to you and your employees who may not have detected health disorders under normal circumstances. Obviously the employees' extra-curricular activities are taken into account, and emphasises the need for base-line checks.

Required by the Health and Safety in Employment Act 1992 – Section 10(2)(c)(d)(e)

Here is a link that contains further information:

<http://www.business.govt.nz/worksafe/information-guidance/all-guidance-items/silica-dust-in-construction-fact-sheet>

