What's the big deal about the silica in bluestone?

Silica is a common mineral found all around us, such as in sand, gravel and bricks. It is usually not dangerous.

It becomes a health risk when it is pulverized, becomes airborne and is inhaled.

Scar tissue can form in your lungs from breathing in bluestone (silica) dust over time, causing severe breathlessness, disabilty and life-threatening illnesses.

The dust can spread from your clothes and body into your vehicle and home and put family members or other household members at risk.

If you do not have symptoms, your lungs may still be damaged.

If you cut bluestone or have been exposed to silica dust, it is important to protect yourself from additional exposure and to discuss your past exposures with your doctor. HealthWorks is the Bassett Healthcare Network's Occupational Health Services Program.

HealthWorks has been delivering high quality, occupational health services to the workers of Central New York. Our staff includes those with recognized experience in occupational health.

HealthWorks services are cost effective and have been perfected over years of experience with evidence-based practice. We have successfully assisted companies of all sizes: from those with as few as five employees to multi-national corporations.

Our recognized experience, expertise, and reliability in occupational health services are unparalleled in the Central New York region.



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hen cutting, breaking, crushing, drilling or grinding bluestone, tiny dust particles are released into the air. These particles contain crystalline silica, which can be dangerous and cause serious lung disease with long-term or high levels of exposure. These particles are at least 100 times smaller than ordinary sand. They are so small you cannot see them in normal lighting.

Bluestone dust particles easily get deep down into the lungs. They do not dissolve. They stay in the lungs. Silica dust can be deadly when breathed in over time.

Of all the stones that have silica, bluestone is one of the worst.

| APPROXIMATE CRYSTALLINE SILICA CONTENT | |
|--|-----------|
| Engineered stone countertops | 90% |
| Bluestone and other sandstone | 70-90% |
| Concrete/mortar | 25-70% |
| Tile | 30-45% |
| Granite | 20-45% |
| Slate | 20-40% |
| Brick | Up to 30% |
| Limestone | 2% |

WHO IS AT RISK?

Many factors play a role in who may develop chronic silicosis including:

- Amount and kind of dust breathed in
- Amount of free crystalline silica in the dust
- Smoking

SILICOSIS

WHAT ARE THE SYMPTOMS?

Over time, scar tissue can form in the lungs. Symptoms may not develop for many years after exposure.

Symptoms may include:

- Chronic cough
- Difficulty breathing, wheezing or a crackling sound in lungs
- Fatigue
- Weight loss
- Chest pain



You may not have ANY symptoms yet have silica particles in your lungs.
This can be seen on a lung X-ray.
Tell your doctor that you are a bluestone cutter and share your concerns.

WHY IT MATTERS

Inhaling silica dust can lead to:

- Silicosis, a serious and permanent lung disease that can cause severe breathlessness, disability and early death
- Lung cancer
- Chronic obstructive pulmonary disease
- Kidney disease
- Autoimmune diseases

Bluestone cutting

Minimizing risk ON THE JOB & AT HOME

Wet cutting/sawing helps reduce dust exposure, preventing many particles from getting into the air.



Try to make as little dust as possible. Keep your head out of the dust when cutting bluestone. Work upwind.

Wear an N95 or KN95 mask that fits you and seals to your face. It can reduce the dust getting into your lungs. SHAVE the day you are going to wear the mask. Otherwise the dust sneaks behind the mask.

Blow your nose at the end of the day: if you see dust in the tissue, you need to make changes to how you are working. (Imagine all of the smaller particles that passed into your lungs!)

If you smoke, talk to a healthcare provider about strategies for quitting. Bluestone cutters who smoke are more likely to develop silicosis in addition to lung cancer and COPD.

Bluestone dust can contaminate your clothes and your vehicle. To prevent exposing others, remove work clothes and shoes before entering shared living spaces or vehicles.