

OCCUPATIONAL HEALTH ALERT



SILICOSIS OUTBREAK IN ENGINEERED STONE FABRICATION WORKERS—18 CASES IN 4 STATES

WHAT HAPPENED?

Two California workers died in 2018 at the ages of 36 and 38 from severe silicosis, an incurable lung disease. Both had worked at a stone fabrication company, polishing slabs and dry cutting and grinding stone edges of engineered stone. The engineered stone contained a very high amount of silica (>90%) that released hazardous concentrations of silica dust into the workplace air. Four more employees of this company were checked and found to have silicosis. Twelve additional stone fabrication workers have also been diagnosed with silicosis in Colorado, Texas, and Washington. Many workers had severe progressive disease, and some had other diseases associated with silica exposure, such as autoimmune diseases and tuberculosis. One worker with lung function decline has been referred for a lung transplant evaluation.

WHY IS THIS IMPORTANT?

This is the first major outbreak of silicosis reported among stone fabrication workers in the United States, including the first deaths. In 2018, there were nearly 9,000 establishments and 100,000 employees in the U.S. stone fabrication industry. Studies have shown that the silica exposure in many of these shops is much higher than allowed under the new federal Occupational Safety and Health Administration (OSHA) silica standard. It is likely that many more cases of silicosis among U.S. stone fabrication workers have occurred but are unrecognized, since few workers have been given a silicosis medical examination. Since 2012, silicosis outbreaks have been reported in several countries, including Israel, Spain, Australia, and China, among workers who cut and finish stone slabs for countertops. Silica dust has been known for hundreds of years to cause silicosis, yet many cases are continuing to occur in the U.S. and worldwide.

KEY PREVENTION POINTS

- Limit silica dust exposure
- Train all workers about silicosis and prevention measures
- Provide workers silica medical testing

WHAT SHOULD BE DONE?

Silicosis is preventable if stone fabrication and installation employers follow the comprehensive OSHA standard for silica dust and implement appropriate control measures to reduce silica dust levels. Without these control measures, workers will likely inhale a hazardous amount of silica dust and have a significantly increased risk of developing silicosis. Employers should:

- Recognize that engineered stone has a very high silica content
- Implement work practices that don't create airborne dust
- Equip tools with water feeds and local exhaust ventilation
- Train all workers about silicosis and prevention measures
- Provide appropriate respiratory protection if needed
- Send workers for silicosis medical examinations as required by OSHA regulations

For more information, contact the CDPH Occupational Health Branch at occhealth@cdph.ca.gov, (800) 970-6680 or see our website "Silica Safety Resources for Stone Fabricators" at www.cdph.ca.gov/silica-stonefabricators. See the full [MMWR article](#), "Severe Silicosis in Engineered Stone Fabrication Workers—California, Colorado, Washington, and Texas, 2017–2019," at bit.ly/CDCVA31.

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