

Workers in stone fabrication industry worldwide at high risk of deadly lung disease, CDC finds

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Last month, the Centers for Disease Control (CDC) released a report which detailed the results of an investigation into 18 cases of silicosis, a deadly occupational lung disease for which there is no cure, among workers in the stone fabrication industry across the US states of California, Colorado, Texas, and Washington from 2017 to 2019. Two of the cases reportedly resulted in death.

Silicosis is characterized by intense scarring and inflammation of the lungs. Patients who suffer from silicosis bear many of the same symptoms as those diagnosed with pneumonia and tuberculosis, such as shortness of breath, persistent cough, fever and bluish skin. In 2013, silicosis killed 46,000 people around the world. No cure is known, yet some experimental treatments such as inhalation of powdered aluminum and corticosteroid therapy have been used.

The report found that most of the cases were in workers under 50 years old, with several under the age of 40. The disease is caused by inhaling tiny particles of crystalline silica, which are released into the air when workers cut, grind and sand pieces of marble, granite and engineered stone for finishing, particularly for use in the fabrication of kitchen and bathroom countertops. Workers also inhale the dust when cleaning and sweeping workplaces where the dust accumulates.

The CDC report found the most severe cases of silicosis to be found in workers who work with engineered stone. Engineered stone is a manufactured quartz-based composite material that can contain over 90 percent crystalline silica, compared to less than 45 percent in natural granite. The report also noted that the popularity of engineered stone for use in manufacturing

countertops has spiked in recent years, noting an 800 percent growth in demand for quartz surface imports to the United States between 2010 and 2018.

Significantly, the CDC investigation highlighted the international character of the incidence of silicosis and the overall effects of the stone fabrication industry on workers' health. Silicosis was found to have been reported among other workers in the same industry in other countries around the world. Before the investigation was published, only one case had been reported previously in the United States.

The government of Queensland, Australia began a screening program in 2018 for all workers in the stone fabrication industry after a growing body evidence revealed the particularly high risk for the disease. The program found 12 percent of those workers examined in Queensland had silicosis, which suggests that many more cases have yet to be revealed in the United States.

Two workers in the CDC investigation were found to have latent tuberculosis infections, and five were diagnosed with concurrent autoimmune disease, the latter also found among workers diagnosed with severe silicosis in other countries. The age range of workers afflicted was also a common feature across countries where the prevalence of the disease among stone workers was reported.

The number of workers in the stone fabrication industry in the United States is not large. In all, the US industry had 8,694 establishments and 96,366 employees in 2018. However, as part of a global industry, they join many more workers in China, Europe, and other parts of North America, where the bulk of engineered stone manufacturing is concentrated.

The Global Engineered Stone Industry 2019 Market Research Report indicated a 12.3 percent growth in global consumption since 2013, with the bulk of the growth in China. The material is used predominantly for manufacture of kitchen countertops, facades, flooring, bathroom surfaces and other uses, with bathroom surfaces being the main driver of demand.

The CDC report revealed that the conditions that US workers face in the stone fabrication industry cause them to be extremely vulnerable to the disease. Most stone fabrication facilities are smaller shops with few safety protections for workers in place. Those diagnosed with the disease were predominantly Hispanic immigrants. The CDC noted that due to this population's immigration status, many tend to wait to seek medical attention until it is too late and fear retaliation from employers for seeking workman's compensation and better safety protections.

A National Public Radio interview with a worker diagnosed with silicosis revealed that stone fabrication workers are constantly breathing in the toxic dust, from which there is seemingly no escape: "If you go to the bathroom, it's dust. When we go to take lunch, on the tables, it's dust ...Your nose, your ears, your hair, all your body, your clothes—everything. When you walk out of the shop, you can see your steps on the floor, because of the dust."

The Occupational Safety and Health Administration (OSHA) set new workplace regulations on the amount of silica allowed in the air at the federal and state levels in 2016, with permissible exposure limits of (PEL) of 0.05 mg/m³. This followed a 2015 hazard report that warned of the dangers that workers in the industry were exposed to at the then-current PEL of 1 mg/m³ (20 times as high). The Trump administration has since ended OSHA's national emphasis program for silica, meaning that there are now essentially no protections for workers against the risk of inhaling silica dust above the already lenient PEL.

Through year after year of budget cuts to OSHA by the Obama and Trump administrations, even the new limits set in 2016 were unlikely to have had the level of staff and funding needed to enforce them. The pro-corporate Democratic Party did not lift a finger to oppose the Trump administration's decision to scrap the silica program, which was announced in order to satisfy the demands of an industry intent on profiting

from increased demand and falling prices through 2024.

In order to eliminate the risk of this deadly disease among workers, research and development must be funded to find a cure for the disease, as well as for the development of new technologies for the manufacture of low-cost, high-quality materials that do not pose a health risk to workers. There is plenty of money held in the coffers of the corporations and banks to fund such developments. The world's leading manufacturer of engineered stone, US-based chemical company DuPont, nearly doubled its profits over the last four years from \$10.94 billion in 2015 to \$20.85 billion in 2018.



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