

# Safety Alert: Silica Dust, a Respiratory Hazard for Stone Fabricators in Massachusetts

Occupational Health Surveillance Program, Fall 2025



## Massachusetts sees first documented case of silicosis in a stone countertop fabrication worker.

In early 2025, a Hispanic man in his 40s was diagnosed with silicosis, an incurable lung disease caused by respirable crystalline silica. For the previous 14 years, he had worked for two stone countertop fabrication and installation companies in Massachusetts. His work as a fabricator involved cutting and shaping quartz, granite, marble, and porcelain. He reported that the workplace at the first company, where he worked for 12 years, was very dusty; wet methods were not routinely used; and he was given thin surgical masks to wear when performing job duties.

After about ten years with that company, he started experiencing cough and shortness of breath. These symptoms persisted, and four years later — after several medical visits and tests — he was diagnosed with silicosis. By that time, he was also experiencing fatigue and weight loss. With worsening symptoms, he expressed concern about being able to work long term.



A stone countertop worker uses a grinding tool to alter a countertop.

## Why is this important?

This is the first documented case of silicosis in a stone countertop fabrication worker in Massachusetts. Cases, including deaths, have been recently documented in a few other states.<sup>1,2</sup> The majority of cases have been among Hispanic or Latino workers, which reflects the demographic makeup of this industry's workforce.

### Silicosis is serious and preventable.

Silicosis almost always results from work-related exposures. It is a serious, incurable lung disease caused by inhalation of crystalline silica, which is found naturally in granite and other stone. Engineered stone (also called quartz or artificial stone) is particularly problematic since it has much more crystalline silica than natural stone (e.g.,  $\geq 93\%$  in engineered stone vs. 10-45% in granite).<sup>3</sup> Processes like cutting, polishing, or grinding stone can generate silica dust. If breathed into the lungs, it can cause silicosis. Exposure can be minimized with workplace controls.

### Governments have taken steps to increase safety in the United States and abroad.

In 2016, the U.S. Occupational Safety and Health Administration (OSHA) updated relevant rules to help keep workers safer — for example, by requiring ventilation and other methods to limit exposure to respirable silica dust.<sup>4</sup> In California, a bill to expand regulations was approved in October 2025.<sup>5</sup> Outside the U.S., Australia went further to address rising rates of silicosis by banning the use, supply, and manufacture of engineered stone in 2024.<sup>6</sup>

## What should employers do to protect workers from silica dust?

Below are some key recommendations for employers along with resources with more information from the National Institute for Occupational Safety and Health (NIOSH), the Occupational Safety and Health Administration (OSHA), and CPWR: The Center for Construction Research and Training.\*

Recommendations	Resources
1. Use effective dust control methods, such as wet cutting or proper dust collection systems.	<a href="#">Table 1 - Equipment Names and Best Practice Tips – Update September 2018</a> (CPWR)
2. Make sure fabrication work takes place in well-ventilated areas.	See page 3 of <a href="#">Worker Exposure to Silica during Countertop Manufacturing, Finishing and Installation</a> (OSHA/NIOSH)
3. Follow housekeeping practices that minimize dust in the air, such as wet sweeping or using a HEPA-filtered vacuum (instead of dry sweeping).	<a href="#">Housekeeping Activities</a> (CPWR)
4. Periodically assess the levels of silica dust in the workplace.	<a href="#">Silica, Crystalline Sampling and Analysis</a> (OSHA)
5. Enroll workers in a medical surveillance program that includes periodic exams by a qualified health care provider.	<a href="#">Medical Monitoring Under the OSHA Silica Standard for the Construction Industry: Guide for Employers</a> (CPWR)
6. Develop and implement a written exposure control plan.	<a href="#">Work Safely with Silica: Create-A-Plan to Control the Dust</a> (CPWR)
7. Train employees in their preferred languages on health effects associated with silica dust and related control methods as part of a Hazard Communication Program.	<a href="#">Work Safely with Silica: Training and Other Resources</a> (CPWR)
8. Provide workers with appropriate respirators based on the task and ensure they are used correctly with an accompanying Respiratory Protection Program.	See page 4 of <a href="#">Worker Exposure to Silica during Countertop Manufacturing, Finishing and Installation</a> (OSHA/NIOSH)

*\*OSHA is part of the U.S. Department of Labor and is the regulatory agency that ensures safe and healthful working conditions. NIOSH is part of the U.S. Centers for Disease Control and Prevention (CDC) and is a research agency focused on the study of worker safety and health. CPWR is a nonprofit organization that partners with NIOSH to reduce occupational injuries, illnesses, and fatalities in the construction industry through research, training, and service.*

## More information

### National Institute for Occupational Safety and Health

- [Inhaling Silica Dust Can Cause Deadly Lung Disease](#) (infographic)
- [Hazard Alert: Worker Exposure to Silica during Countertop Manufacturing, Finishing and Installation on Silica](#)
- [Silica and Worker Health](#)

### Occupational Safety and Health Administration

- Respirable Crystalline Silica Standards:
  - [For general industry](#)
  - [For construction industry](#)
- [Small Entity Compliance Guide for Respirable Crystalline Silica Standard for Construction](#)
- [Fact Sheet: OSHA's Respirable Crystalline Silica Standard for General Industry and Maritime](#)
- [Fact Sheet: OSHA's Respirable Crystalline Silica Standard for Construction](#)



Water and dust-capture systems can decrease dust levels.

### Massachusetts Department of Labor Standards

- [On-Site Consultation Program](#): If you need help with your health and safety program, contact the Massachusetts Department of Labor Standards for free resources.

## References

1. Rose C, Heinzerling A, Patel K, et al. Severe Silicosis in Engineered Stone Fabrication Workers — California, Colorado, Texas, and Washington, 2017–2019. *MMWR Morb Mortal Wkly Rep* 2019;68:813–818.
2. Fazio JC, Gandhi SA, Flattery J, et al. Silicosis Among Immigrant Engineered Stone (Quartz) Countertop Fabrication Workers in California. *JAMA Intern Med*. 2023;183(9):991–998.
3. [OSHA/NIOSH Hazard Alert: Worker Exposure to Silica during Countertop Manufacturing, Finishing and Installation on Silica](#). Accessed October 28, 2025.
4. [OSHA Respirable Crystalline Silica Standard](#). Accessed October 28, 2025.
5. California Legislative Information. [SB-20 Occupational safety: fabrication activities on stone slab products](#). Accessed October 28, 2025.
6. Australian Government. Department of Employment and Workplace Relations. [Prohibition on the use of engineered stone](#). Last updated October 29, 2024. Accessed October 28, 2025.

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See this Safety Alert in [Spanish](#) and [Portuguese](#).