

## Hot Tips: Public Health Advisory #135 Date: 8/7/2023

Please copy and distribute to ALL physicians at your location.

### *An Increase in Cases of Silicosis*

#### **Key Messages**

- The California Department of Public Health (CDPH) has announced that over 70 cases of silicosis have been identified among California workers since 2019, including at least 10 associated deaths.
- Silicosis is a severe and irreversible lung disease that results from inhalation of respirable crystalline silica dust.
- This condition primarily affects individuals that have worked in environments where countertop manufacturing or finishing is performed.
- Physicians should be aware of the etiology and presentation of silicosis, in order to identify and educate any patients who may be at risk for this illness.

#### **Situation**

Inhalation of respirable crystalline silica (RSC) has been associated with incurable lung damage as well as other organ toxicity. The illness arising from exposure to RSC is known as silicosis, and is characterized by coughing, pulmonary fibrosis, and inflammation. The course of illness can be swift and result in the need for oxygen supplementation, lung transplant, or eventually lead to death within a few years for individuals with significant exposure. The implicated silica particles are present in dust from commonly used construction materials such as marble, granite, and sandstone, with the greatest concentrations found in quartz. High concentrations of silica dust in the air are associated with cutting quartz. Working with engineered quartz has been established to result in a high risk for developing silicosis. Quartz has become increasingly popular as countertop material in home kitchens. It is also possible to be exposed to silica dust through alternate activities such as pottery and ceramics resulting in illness of longer latency.

Silicosis can go underdiagnosed as symptoms may not be apparent in early stages of the disease. A recent study in California found most of the cases and deaths attributed to silicosis occurred in men in their 40s (median age, 45), often immigrant and Latino, and presented with advanced disease. 50% presented initially to an Emergency Room. 60% of all cases were initially misdiagnosed, half as bacterial pneumonia and half as pulmonary tuberculosis. Delayed diagnosis can be prevented by adequately screening both symptomatic and asymptomatic patients, inquiring about their occupation, performing pulmonary function tests, and referring them for chest imaging to identify potential abnormalities. It is important to note that silicosis also presents

in a similar manner to other illnesses such as asthma, pneumonia, tuberculosis, or sarcoidosis. Any patients diagnosed with silicosis should be referred to obtain appropriate care from a pulmonary medicine specialist.

There are 808 stone countertop fabricators in California and potentially as many as 20 or more such fabricators in Ventura County. This disease can be prevented by establishing adequate workplace safety measures to reduce silica dust exposure and protect at-risk workers. Inhaling any silica dust is dangerous; workers can help protect themselves by always using water to cut or grind countertops, using special vacuums to clean dust, and wearing a respirator, which must be fit-tested to be effective. Cal/OSHA guidelines spell this out.

### **Resources**

Additional information and resources for physicians can be found at [Crystalline Silica: Health Risks | NIOSH | CDC](#). At-risk patients and employers can be referred to [Silica Safety Resources for Stone Fabricators](#) for guidance and educational resources to protect themselves from the disease.

Please report any cases to CDPH by calling 1-800-970-6680 or emailing [silicosis@cdph.ca.gov](mailto:silicosis@cdph.ca.gov). Please note that any identifiable patient information should be send through a secure email.

This bulletin is intended to improve the public health in our county by keeping physicians and nurses informed of noteworthy diagnoses, disease trends, and other events of medical interest. Another goal of a public health department is to educate. We hope that you will use this information to increase your awareness. Please allow us to continue in our role of speaking to the press so that we may maximize the educational message to the benefit of all citizens of Ventura County.