

Accelerated silicosis: what you need to know

SA doctors should be aware of an occupational lung disease – accelerated silicosis which may affect an unknown number of workers in this state.

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Accelerated silicosis is a preventable occupational lung disease occurring in young workers as a result of the manufacture and installation of artificial stone bench tops in kitchens, bathrooms and laundries. To date there is no known treatment so early detection, diagnosis and management is essential.

An audit conducted in Queensland since September 2018, identified 800 workers in the artificial stone industry that require health screening, of these just over half have undergone health assessments. Already 108 workers have been diagnosed with accelerated silicosis and of these 20 have Progressive Pulmonary Fibrosis (PMF), for which the only treatment is lung transplantation. New South Wales, Victoria and South Australia have started health screening for accelerated silicosis and worksite audits. The number of workers who may be affected in this state and nationally is as yet unknown.

Stonemasons who cut and grind artificial stone, particularly dry cut, which contains a high proportion of crystalline silica, into kitchen, bathroom and laundry bench tops are at risk of contracting accelerated silicosis as a result of being exposed to unsafe levels of silica dust.

Silicosis is a fibrotic disease of the lungs caused by the inhalation and deposition of respirable crystalline silica in the lung tissue. Unlike natural stone such as granite, which typically contains only up to 30 per cent silica, artificial

stone can have silica concentrations of over 90 per cent. The rate of change in lung function deterioration for workers with accelerated silicosis is on average 10 times faster than the normal age-related deterioration. The latent period from exposure to development of disease (symptomatic or asymptomatic) is from 1-10 years. Therefore the disease can continue to progress even after a worker has left the industry.

Any worker who has worked with artificial stone, either now or in the past, should be assumed to have been exposed to silica dust and undergo health screening, whether or not they have symptoms.

Diagnosis is based on a comprehensive clinical and radiological assessment consisting of;

- an occupational history with details of current and/or previous work sites, job tasks, use of personal protective equipment and exposure to silica dust
- respiratory symptoms such as cough (productive or non-productive) and shortness of breath on exertion
- a clinical examination, focusing on the respiratory system
- lung function testing to Thoracic Society of Australia and New Zealand (TSANZ) standards
- an ILO chest x-ray to be read by an ILO qualified B reader
- a high resolution CT scan of the chest.

Workers with positive findings must be referred to a respiratory physician for confirmation of the diagnosis. An occupational physician can assist with management. Ongoing health monitoring of exposed workers will be required.

South Australian workers in the engineered stone bench top industry, or their treating medical practitioners, can arrange for a free health assessment via the Mining and Quarrying Occupational Health Safety Committee (MAQOHSC) by telephoning (08) 8204 9842 or email maqohsc@sa.gov.au. The health assessment is available for workers and employers who have been exposed and involves health questionnaires, spirometry, a full medical examination with particular focus on the respiratory system and chest x-ray.

If one of your patients is diagnosed with silicosis and wishes to make a workers compensation claim, ReturnToWorkSA has a specialist team to assist with the claims process. They can be contacted by email at silicosis@rtwsa.com or telephone 08 8233 2545.

For further information in relation to this article, on this topic and/or support with referrals to appropriate services, please email providers@rtwsa.com or telephone 08 8238 5757.