

Controlling Exposures to prevent occupational lung disease in the construction industry



HAZARDS AND RISKS

The biggest risk to a glazier's respiratory health is likely to be from asbestos. A glass fitter may frequently work with domestic soffits and rainwater goods which contain asbestos cement. Other hazardous dusts on a construction site arise from the various grinding, drilling, cutting, chiselling, painting, spraying and other activities. [Note that lead in old paint may be a health risk when removed by heating or sanding – lead poisoning can be serious but is not a respiratory hazard].

Construction dust

Construction dust is a general term for dusts typically found on a construction site. Breathing in any dust over time can cause serious lung diseases such as chronic obstructive pulmonary disease (COPD), which includes conditions such as chronic bronchitis and emphysema. There are also dusts, such as silica dust or wood dust, that can cause specific lung diseases.

Silica dust - respirable crystalline silica (RCS)

Silica is present in large amounts in most rocks, sand and clay, and in products such as bricks, concrete and mortar. Some silica dust is fine enough to be breathed deeply into the lungs; this is called respirable crystalline silica (RCS). Exposure to RCS over many years, or in extremely high doses, can lead to serious lung diseases, including fibrosis, silicosis, COPD and lung cancer. These diseases cause permanent disability and early death:it is estimated that over 230 workers die every year from lung cancer caused by exposure to RCS.

Wood dust

Dust from softwood and hardwood, and wood-based products such as MDF and chipboard can cause asthma, which is a serious, debilitating, and sometimes life-limiting condition. The finest dust, for example from sanding or disturbance of settled dust, is most likely to damage the lungs if breathed in. Some types of wood dust are also known to cause cancer.

Asbestos

Glass fitters may come into contact with, or disturb, asbestos containing materials (ACMs) during maintenance work. Asbestos is classified as a category 1 carcinogen. Inhalation of asbestos fibres can cause mesothelioma, asbestos-related lung cancer, asbestosis, and pleural thickening; all fatal or serious and incurable diseases which take many years to manifest.

CONTROL OPTIONS

Elimination/prevention

 Asbestos: The aim is to avoid exposure completely. Information on the presence of asbestos should come from the premises' asbestos management plan and asbestos register.

Safe working methods

- Use water suppression for wood and stone cutting and drilling.
- Keep workers away from dust sources unless directly involved in the task.
- Ensure good general ventilation wherever possible.

MANAGING THE RISK

Training & communication, supervision, maintenance & testing of controls and air monitoring* are all vital aspects of managing the risk, in addition to health surveillance which can be a requirement in certain circumstances.

See our introductory Respiratory Health Hazards in Construction Fact Sheet Series: **Overview** for more information about what things to consider and implement.

Air monitoring*

Air monitoring is a specialist activity. It may be needed as part of a risk assessment, as a periodic check on control effectiveness and to assess compliance with relevant WES, or where there has been a failure in a control (for example if a worker reports respiratory symptoms). A qualified Occupational Hygienist can ensure it is carried out in a way that provides meaningful and helpful results.



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Glazier/Glass Fitter

WORKPLACE EXPOSURE STANDARDS (WES) & EXPOSURE LEVELS

Agent or substance	Control/Exposure Limit	Exposure Levels
Asbestos (all types)	0.1 fibres/ml (8 hr TWA)	
Silica - RCS	0.1 mg/m ³ (8 hr TWA).	Dry work with high silica-content materials – such as sandstone - causes the highest risks.
Wood dust - Soft Wood	5 mg/m³ (8 hr TWA)	
Wood dust - Certain	1 mg/m2 /0 hr TM/A)	
Hard Wood	1 mg/m3 (8 hr TWA)	

Further information

- $\bullet \ \ \text{COSHH Essentials guidance sheet on how to control exposure to hazards in construction:} \\ \textbf{www.hse.gov.uk/pubns/guidance/cnseries.htm}$
- Construction dust leaflet: www.hse.gov.uk/pubns/cis36.pdf
- Wood dust: www.hse.gov.uk/woodworking/wooddust.htm

