

Lung health and dust awareness toolbox talk



What is the issue?

- Many construction activities can create airborne dust, especially from materials such as wood, stone, concrete, fillers and plasterboards.
- The widespread use of portable power tools has resulted in an increase in the health risks from dust in construction. The tasks themselves may be brief but multiple short exposures can result in ill health.
- Dust is not always an obvious hazard because the particles that do the most damage are not visible to the human eye and the health effects can take years to develop.
- The long term effects of exposure to dust can be permanent and do disabling damage to the lungs and severely affect your quality of life.

What should you be concerned about?

- Although most dusts can cause irritation of the skin, eyes and throat if you are exposed to them, the major concerns are regarding the effects of dusts once they enter the lungs.
- Chronic Obstructive Pulmonary Disease (COPD) is an overall term for lung diseases that inflame the airways and obstruct breathing. It includes chronic bronchitis and emphysema and is the 5th biggest killer in UK.
- If your work exposes you to dust on a regular basis then you may be at risk of developing COPD. This is especially true if you are also a smoker.
- It is possible to become sensitised to certain dusts, such as wood dust. This is an allergic reaction to a substance. This can lead to occupational asthma. Once you become sensitised to a material, every time you are exposed to the material again, even at very low levels, the symptoms will appear.
- Silicosis is caused by the inhalation of respirable crystalline silica, which can be found in concrete and other construction materials.
- Many of these ill health effects take a long period of time to develop, so it may not be immediately obvious that the dust is causing harm. Although it is possible to see larger dust particles in the air, these are usually too big to get into the lungs. Very fine particles are required to get into the deep lung, and as these are typically invisible to the naked eye it may not be obvious that there is a problem.

What should you look out for?

- The health effects vary dependent on the type of dust present, although there are some common symptoms that you can look out for.
- The short term effects on the lungs include coughing, wheezing, difficulty in breathing and general irritation of the nasal and respiratory tract. There may also be an increased production of mucus and mucus may become discoloured.
- All of these short term symptoms may not occur directly after exposure – it could be many hours before they start to appear.
- Long-term symptoms may include a persistent hoarse cough, regular chest infections and an increased shortness of breath, even when performing simple tasks, e.g. walking up stairs, carrying light loads. These symptoms could indicate COPD or other diseases such as silicosis.

What can you do about it?

- Use dust extraction on tools, especially if cutting is involved. This could be as simple as attaching a vacuum cleaner (suitable for the purpose) to the tool or using tools fitted with integrated extraction. Ensure that the extraction equipment has suitable filters to remove the contaminant from the air. For most of the dusts you could be exposed to this should be an 'M Class' filter, a HEPA filter isn't good enough.
- Make sure you have good ventilation in the area of work.
- If possible, use water suppression techniques when using cutting materials.
- Ensure the correct fitting, wearing and maintenance of PPE – wear any PPE as instructed, clean and check it regularly and change it for a new piece as and when necessary.
- Wear dust masks fitted with a particulate (P) filter. Make sure you have been shown how to fit it correctly and have undertaken face-fit testing.
- Make sure the housekeeping in your work area is good – regular vacuuming and wet sweeping of the floor and machinery will remove any settled dust that could be raised again if disturbed.
- Under no circumstances should dry sweeping take place in areas where dust is present – always damp down first.