

A short guide to ASBESTOS



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Asbestos is actually a term that refers to six fibrous minerals that occur naturally across the globe, although Chrysotile accounts for approximately 95 percent of the asbestos used around the world. Because asbestos fibres are naturally resistant to heat, fire, electricity and chemicals they have long been used in construction. Asbestos can be found in any building built or refurbished before 2000 but is only dangerous when disturbed. If it is safely managed and contained it doesn't present a health hazard, however, it is reported to cause 5,000 deaths a year.

What is the history of the use of asbestos?

Archaeologists have uncovered asbestos fibres in debris dating back to the Stone Age, some 750,000 years ago and while the Greeks and Romans exploited the unique properties of asbestos, they also documented its harmful effects. Around 755, King Charlemagne of France had a tablecloth made of asbestos to prevent it from burning during the accidental fires that frequently occurred during feasts and in 1280, Marco Polo wrote about clothing made by the Mongolians from a "fabric which would not burn." Benjamin Franklin had a purse made of asbestos in 1725 and by the 1800s, the Italian government was utilizing asbestos fibres in its bank notes. The Parisian Fire Brigade in the mid-1850s wore jackets and helmets made from asbestos.

The early 1870s also saw the founding of large asbestos industries in Scotland, Germany and England and by the early 1900s, asbestos production had grown worldwide to more than 30,000 tons annually. Peak world demand for asbestos was realized around 1977 with some 25 countries producing almost 4.8 million metric tons per year.

When was it discovered that asbestos was harmful?

As noted above, the Greeks and Romans were aware of the effects of asbestos inhalation: The Greek geographer Strabo noted a "sickness of the lungs" in slaves who wove asbestos into cloth, while the Roman historian, naturalist and philosopher, Pliny the Elder, wrote of the "disease of slaves," and actually described the use of a thin membrane from the bladder of a goat or lamb used by the miners as an early respirator. The first death directly attributed to asbestos in the modern age was in 1897 in Austria and a 1898 report regarding the asbestos manufacturing process in England cited "widespread damage and injury of the lungs, due to the dusty surrounding of the asbestos mill."

In 1906, the first documented death of an asbestos worker from pulmonary failure was recorded by Dr. Montague Murray at London's Charing Cross Hospital. As early as 1908, insurance companies in the U.S. and Canada began decreasing coverage and benefits, while increasing premiums, for workers employed in the asbestos industry, however, the use of asbestos is still not banned in the US.

What diseases does it cause?

Exposure to asbestos can cause a plethora of serious illnesses. The main diseases caused by asbestos are:

- **Mesothelioma**: A cancer which affects the lining of the lungs (pleura) and the lining surrounding the lower digestive tract (peritoneum). It is almost exclusively related to asbestos exposure and by the time it is diagnosed, it is almost always fatal.
- Asbestosis: A serious scarring condition of the lung that normally occurs after heavy exposure to asbestos over many years. This condition can cause progressive shortness of breath, and in severe cases can be fatal.

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- **Lung Cancer**: Asbestos-related lung cancer is the same as (looks the same as) lung cancer caused by smoking and other causes. It is estimated that there is around one lung cancer for every mesothelioma death.
- **Pleural Thickening:** The lining of the lung (pleura) thickens and swells. If this gets worse, the lung itself can be squeezed, and can cause shortness of breath and discomfort in the chest.

Who is at risk?

Any workers involved in construction, refurbishment, maintenance and other similar trades, could be at risk of exposure to asbestos during their work. This includes:

- Heating and ventilation engineers
- Demolition workers
- Carpenters and joiners
- Plumbers
- Roofing contractors
- Painters and decorators
- Plasterers
- Fire and burglar alarm installers
- Shop fitters
- Gas fitters and electricians
- Computer and cable installers
- Janitors and caretakers
- Telecommunications engineers
- Architects, building and quantity surveyors

When are they at risk?

Workers are most at risk when:

- the building they are working on was built before the year 2000
- they are working on an unfamiliar site
- asbestos-containing materials were not identified before the job was started
- asbestos-containing materials were identified but this information was not passed on by the people in charge to the people doing the work
- no risk assessment has taken place
- they don't know how to recognise and work safely with asbestos
- they have not had appropriate information, instruction and training
- they choose to put themselves at risk by not following proper precautions, perhaps to save time or because no one else is following proper procedures

Who is responsible for managing the risk, and how?

The duty to manage asbestos is contained in regulation 4 of the Control of Asbestos Regulations 2012. It requires the **dutyholder** to:

- take reasonable steps to find out if there are materials containing asbestos in non-domestic premises, and if so, its amount, where it is and what condition it is in
- presume materials contain asbestos unless there is strong evidence that they do not
- make, and keep up-to-date, a record of the location and condition of the asbestos- containing materials - or materials which are presumed to contain asbestos
- assess the risk of anyone being exposed to fibres from the materials identified
- prepare a plan that sets out in detail how the risks from these materials will be managed
- take the necessary steps to put the plan into action
- periodically review and monitor the plan and the arrangements to act on it so that the plan remains relevant and up-to-date
- provide information on the location and condition of the materials to anyone who is liable to work on or disturb them

The **dutyholder** is the owner of a non-domestic premises or the person or organisation that has clear responsibility for the maintenance or repair of that premises, for example through an explicit agreement such as a tenancy agreement or contract.

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What kind of training is necessary for those at risk?

Most work with higher risk asbestos-containing materials must be carried out by **licensed contractors**. Only competent workers and managers, provided with suitable information instruction and training and using appropriate respiratory and other protective equipment, may undertake licensed asbestos work.

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However, for those workers and supervisors who are at risk of coming across asbestos in their day to day roles, training must be given to allow them to be able to recognise asbestos-containing materials and know what to do if they come across them in order to protect themselves and others. This training is called **Asbestos Awareness**.

What should Asbestos Awareness training cover?

Information, instruction and training about asbestos awareness should cover the following:

- the properties of asbestos and its effects on health, including the increased risk of developing lung cancer for asbestos workers who smoke
- the types, uses and likely occurrence of asbestos and asbestos materials in buildings and plant
- the general procedures to deal with an emergency, eg an uncontrolled release of asbestos dust into the workplace
- how to avoid the risk of exposure to asbestos

Online learning (often referred to as elearning) is increasingly used as a method of providing asbestos awareness training. The Health & Safety Executive recognises the use of e-learning as a viable delivery method, among others, for asbestos awareness training, provided it satisfies the requirements of Regulation 10 of the Control of Asbestos Regulations 2012 and the supporting Approved Code of Practice L143 'Managing and working with asbestos'. In addition, some form of refresher should be given, as necessary, to help ensure knowledge of asbestos awareness is maintained, ideally every 12 months or so.

What asbestos courses do DCP Safety & Training offer?

Classroom Training - Asbestos Awareness: This is a high impact and engaging half day course with a practical approach to raise delegate awareness about the hazards from exposure to asbestos in the workplace. The course follows the requirements of regulation 10 of the Control of Asbestos Regulations 2012 and the relevant HSE Approved Codes of Practice.

All workers who are likely to disturb asbestos containing materials during their normal work should be trained so that they can work safely. This Asbestos Awareness (Category A) course is suitable for anyone who may be exposed to asbestos as part of their work so that they understand the dangers and can avoid any work which may disturb asbestos.

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ELearning - Asbestos Awareness: This course is approved by RoSPA and IATP and covers all areas of asbestos awareness and is designed for anyone who may come into contact with asbestos in their work. Most commonly, that includes builders, plumbers, electricians, carpenters and other building related and maintenance trades. The course consists of 4 modules with questions at the end. The modules cover areas such as recognising asbestos, where it is used, minimising the risks and legislation about working with asbestos.

Asbestos Awareness for Designers & Architects: Approved by RoSPA and IATP, this course covers the same subjects as our Asbestos Awareness course with an additional module aimed specifically at architects and designers working with buildings that may contain asbestos. It provides information about the legislation governing asbestos in work and outlines the responsibilities of architects and designers. The course consists of 5 modules with questions at the end.

For more information on asbestos awareness courses or any other health and safety concern please contact Jon Rensink on **07785 425295** or email **info@danielconnal.co.uk**

DCP Safety and Training is part of Daniel Connal Partnership Chartered Surveyors, providing classroom training, e-learning and health and safety support services

