



## Asbestos in construction



### Introduction

**All construction, maintenance, and cleaning workers are potentially at risk from exposure to asbestos.** This factsheet explains what asbestos is, its health effects, who is at risk, and where it may be found.

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It does not cover asbestos removal operations. The factsheet gives some basic good practice, but cannot provide detailed guidance. It is strongly recommended that you contact your relevant enforcing authority or other bodies if you suspect that you may be exposed to asbestos at work.

### What is asbestos?

Asbestos is the common name for a group of minerals. Asbestos fibres are very heat resistant and strong, and were used for many years in:

- thermal insulating materials such as lagging and coatings;
- 'fireproof' textiles, paper and boards;
- clutch and brake linings;
- asbestos cement products;
- electrical insulating materials;
- personal protective equipment.

The use of asbestos is now virtually banned in the European Union, but there is still a lot of asbestos about. This means that asbestos exposure can still occur.

### Health effects of exposure to asbestos

Asbestos fibres can have serious health effects if inhaled, including asbestosis, lung cancer and mesothelioma. There is no known safe exposure level to asbestos. The more you are exposed, the greater the risk of developing an asbestos-related disease. The time between exposure to asbestos and the first signs of disease can be as much as 30 years. The effects of past exposure are now apparent.

- Around 3 000 people a year in Great Britain die from diseases caused by past exposure to asbestos, and the figure is expected to rise to almost 10 000 by 2010 <sup>(1)</sup>. Of these 3 000 people, 25 % have once worked in the building or maintenance trades.
- In Sweden, there are more deaths from the late effects of asbestos exposure (pleural mesotheliomas) than the total number of fatal occupational accidents <sup>(2)</sup>.

It is well known that cigarette smoking can cause lung cancer, but if you are exposed to asbestos as well, the risk of developing lung cancer multiplies. A smoker who inhales asbestos is 50 times more likely to develop lung cancer than a non-smoker who has not been exposed to asbestos.

### Essential information

If you work in the building, maintenance or cleaning trades then you can be at risk of exposure to asbestos. Typical places where asbestos may be found include:

- walls (as insulating boards in wall partitions);
- textured coatings and paints;
- floor tiles;
- linoleum floors;
- on boilers with thermal insulation;
- insulation on steel building frames;
- ventilation ducts;
- ceilings (as fire breaks in ceiling voids);
- ceiling tiles;
- doors;
- electrical installations;
- heating systems (as thermal insulation on pipework, heaters and boilers);
- roofs (particularly as asbestos cement products);
- roof tiles;
- building facades, including guttering, soffits and cladding;
- water and sewage pipes;
- valves, flanges and gaskets, which may be lined or sealed with asbestos;
- toilet cistern, window boxes, asbestos paper lining, etc.

### Trades at risk

- plumbers;
- heating engineers;
- electricians;
- joiners;
- carpet fitters, and fitters of other floor finishes;
- shop fitters;
- maintenance staff, including contract staff and janitors;
- roofers;
- cleaners;
- other trades that need to gain access to roof voids, under-panelling, and similar 'hidden' areas.

Before starting work, ask if there has been a check for asbestos. Assume asbestos is present unless proven

<sup>(1)</sup> <http://www.hse.gov.uk/asbestos/index.htm>

<sup>(2)</sup> <http://se.osha.eu.int/statistics/osharapp.pdf>

otherwise. Stop work and seek advice if you suspect there may be asbestos present. Remember, never remove asbestos material unless you have permission and have been trained to do so.

### Asbestos roofs

Asbestos cement roofs are often fragile. Always ensure that you have a safe place of work and safe access to your workplace. Some asbestos cement roofs may have additional asbestos insulation applied to the underneath part (sometimes called limpet asbestos). This can be in a loose, friable condition. If such material is found, all workers should withdraw from the area immediately and seek expert help. No attempt should be made to remove this material.

If you manage or control a building, you need to know whether there is asbestos on your premises. This can be found out by:

- consulting the plans of the building;
- looking at the paperwork from previous work (such as builders' invoices);
- carrying out an inspection yourself (but not taking samples);
- consulting others such as architects, surveyors, safety representatives and employees who may be able to give more information;
- employing a competent person to survey the premises. Sampling should only be carried out by trained people.

When in doubt, assume a material is asbestos. If asbestos is on the premises, you should take steps to ensure that people are not exposed; these can include:

- assess the risks of exposure to asbestos;
- plan how you will manage the asbestos-containing materials, implement and review this plan regularly;
- keep an up-to-date record of where the asbestos is located (record both type and location);
- provide all relevant information to building, maintenance and cleaning contractors before they start work on site.

### Legislation

There is a lot of European legislation for asbestos that is transposed into national law. Member States may also have their own additional legislative requirements, so **check with the relevant enforcing authority**.

European legislation has sought to prohibit the use of asbestos, and to set strict standards for the protection of workers when they may be exposed. The following are some of the relevant directives.

- Council Directive 89/391/EEC of 12 June 1989 on the introduction of measures to encourage improvements in the safety and health of workers at work
- Council Directive 90/394/EEC of 28 June 1990 on the protection of workers from the risks related to exposure to carcinogens at work
- Council Directive 98/24/EC of 7 April 1998 on the protection of the health and safety of workers from the risks related to chemical agents at work
- Council Directive 83/477/EEC of 19 September 1983 on the protection of workers from the risks related to exposure to asbestos at work, modified by Council Directive 91/382/EEC of 25 June 1991, and amended by Council Directive 98/24/EC of 7 April 1998 and Directive 2003/18/EC of the European Parliament and of the Council of 27 March 2003

### Further information

This factsheet has been produced to support the European Week for Safety and Health at Work 2004. Other factsheets in the series and further information on construction are available at <http://ew2004.osha.eu.int>. This source is being continually updated and developed. Information on EU safety and health legislation can be found at <http://europe.osha.eu.int/legislation/>. Additional factsheets on dangerous substances and a wide range of other safety and health topics can be downloaded from <http://agency.osha.eu.int/publications/factsheets>.



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European Agency for Safety and Health at Work  
 Gran Vía, 33, E-48009 Bilbao  
 Tel. (34) 944 79 43 60, fax (34) 944 79 43 83  
[information@osha.eu.int](mailto:information@osha.eu.int)