

Asbestos factsheet



Public Health
Agency

What is asbestos?

Asbestos is a naturally occurring fibrous material with the ability to withstand high heat and electrical currents. It was used extensively in the in the past for protecting buildings and equipment from heat and fire.

Those involved in demolition work, asbestos abatement and building repair and maintenance may be exposed to higher levels of asbestos as disturbing such materials releases fibres into the air.

How does asbestos get into the environment?

Asbestos fibres may enter the atmosphere due to the erosion of natural asbestos-containing minerals or due to damage to man-made asbestos-containing products.

Is asbestos dangerous?

In general asbestos is not considered to be acutely toxic. However chronic low level inhalation exposure may cause lung disorders, mesothelioma or lung cancer. Chronic high level exposure may cause asbestosis (generally only found in those working with asbestos) or lung cancer.

Asbestos products in good condition are safe. Asbestos is only dangerous when it is in a loose

form, damaged, disturbed or worked on, as this can release the asbestos fibres into the air.

What are the risks associated with asbestos exposure?

Low levels of asbestos are naturally present in the air, water, and soil, so everyone is exposed to asbestos at some time during their life. Most people do not become ill from their exposure. People who become ill from asbestos are usually those who are exposed to it on a regular basis, most often in a job where they work directly with the material or through substantial environmental contact.

WHO guidance indicates that lifetime exposure to a concentration of 0.0001 fibres per cm³ of air (or 0.007 fibres per cm³ per year) will result in an increased lifetime risk of mesothelioma and lung cancer of between two to four cases per 100,000 people depending upon whether they apply to a smoker or non-smoker (ie two to four additional cases per 100,000 people).

What health conditions can be caused by asbestos exposure?

The major health conditions which can be caused by asbestos exposure are:

- Asbestosis – inflammation of lung tissue leading to fibrosis
- Mesothelioma – cancer of lung and less frequently cancer of peritoneum
- Lung cancer

As with any chemical exposure, adverse health effects from asbestos depends on several factors, including the amount to which a person is exposed, the duration of exposure, time since exposure, the way they were exposed, the type of asbestos and if they were exposed to any other chemicals. Not everyone who is exposed develops health problems.

Breathing in high concentrations of asbestos for a long period of time may affect the lungs, causing a disease called asbestosis where breathing becomes difficult and the heart enlarges. Chronic low level inhalation exposure may cause lung disorders, mesothelioma or lung cancer.

How does smoking affect risk?

Many studies have shown that the combination of smoking and asbestos exposure is particularly dangerous. Smokers who are also exposed to asbestos have a greater risk of developing lung cancer than the individual risks from asbestos and smoking added together.

There is evidence that quitting smoking will reduce the risk of lung cancer among asbestos-exposed workers. Smoking combined with asbestos exposure does not appear to increase the risk of mesothelioma. However, people who were exposed to asbestos on the job at any time during their life, or who suspect they may have been exposed, should not smoke.

How long do symptoms take to appear?

Asbestos related diseases may take many years to manifest. There are no clinical tests to identify asbestos exposure apart from long term evidence of damage caused by fibres within the lungs.

What should I do?

If you have no respiratory symptoms no action is necessary, however you should be aware of the long-term health risks of asbestos as outlined above. If you have or develop respiratory symptoms that you feel may be related to asbestos exposure you should seek medical advice.

Further information

Health Protection Agency

www.hpa.org.uk/HPA/Topics/ChemicalsAndPoisons/CompendiumOfChemicalHazards/1190384158555/

Health and Safety Executive Northern Ireland

<http://asbestos.hseni.gov.uk/understanding-asbestos/>