

A microscopic image showing numerous thin, needle-like fibers of asbestos, some appearing as bright, elongated structures against a dark background.

## Asbestos.....

**Asbestos** is a term used for the fibrous forms of several naturally occurring minerals

Commercial use of asbestos within the UK began at the end of the 19<sup>th</sup> Century – With use reaching a peak in 1950's – 1970's with the construction of new 'System Built' buildings and refurbishment of older buildings.

### **Why is asbestos dangerous?**

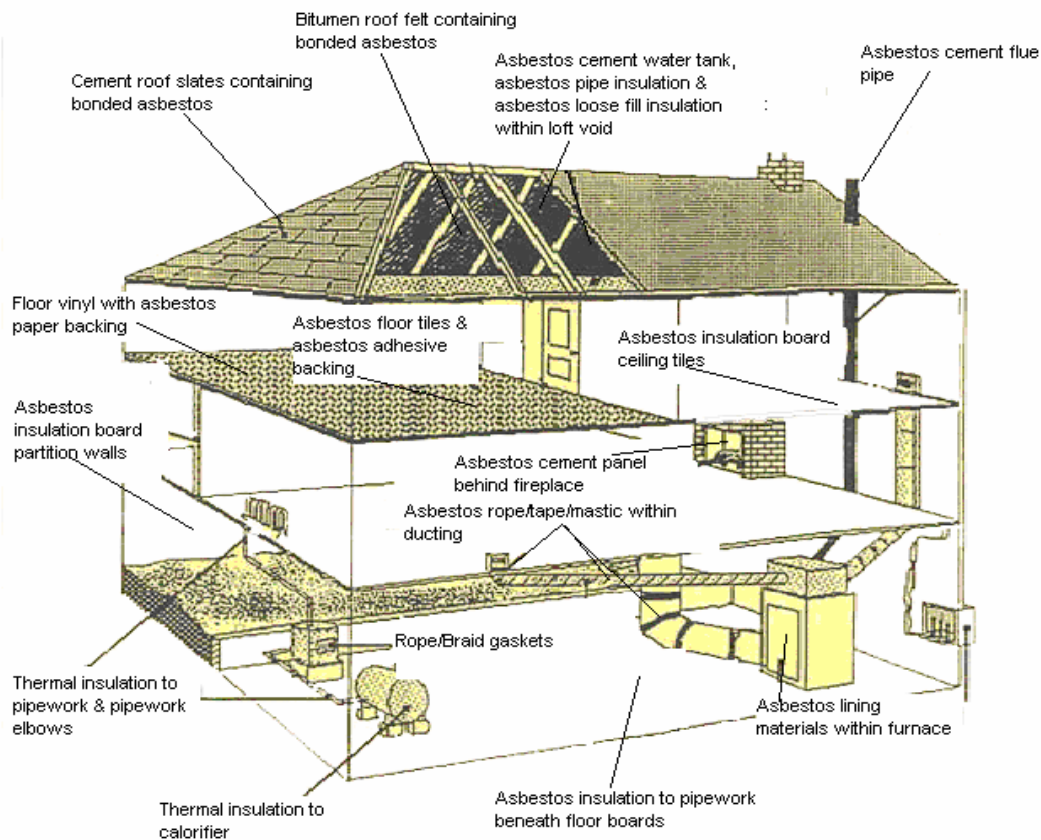
Breathing in air containing asbestos fibres can lead to asbestos-related diseases, mainly cancers of the lung and chest lining. Asbestos-related disease is the biggest occupational health killer within the UK with approx 3,500 people (at 2005 figures) currently dying each year, 25% of these once worked in the building and maintenance trades and often would have worked unknowingly on asbestos containing materials.

### **Who is at risk?**

It is now illegal to use asbestos in the construction or refurbishment of any premises but many thousands of tonnes were used in the past and much will still be in place. As long as the asbestos is in good condition and will not be disturbed or damaged there is minimal risk. If, however, it is disturbed or damaged it can become a danger to health because the needle-like fibres may be released into the air and become inhaled.

Anyone who comes into contact with fibres can be at risk. Those who will be at particular risk are those who may disturb asbestos, anyone whose work involves drilling, sawing or cutting into the fabric of premises could potentially be at risk. The scientific evidence on exactly what exposures of asbestos cause disease is unclear, but it is known the more asbestos fibres breathed in, the greater the risk to health.

## Where is asbestos found in buildings?



ACM's (Asbestos Containing Materials) have been put to many uses within buildings over the past century.

### **Asbestos may be found almost anywhere in a building.**

You are most likely to come across asbestos in the materials listed below:

- Sprayed asbestos – generally used as fire protection to structural steelwork, lining within ducts, fire breaks etc.
- Moulded or pre-formed lagging – used in thermal insulation of pipes, boilers, calorifiers etc,
- Insulation boards used for fire protection, thermal insulation, partitioning and duct formation
- Ceiling tiles (Thermal & Acoustic).
- Millboard, paper and asbestos rope products used for insulation of electrical equipment. (Asbestos paper has also been used as a fire-proof facing on wood fibreboard).
- Asbestos cement products, which can be fully or semi-compressed into flat or corrugated sheets, gutters, rainwater pipes and water tanks.
- Textured coatings i.e. 'Artex', 'Wondertex' etc.

- Bitumen roofing material.
- Vinyl or thermoplastic floor tiles.

Generally, the products containing a high percentage of asbestos - up to 90%, are more fragile and easily damaged, such as pipe or boiler lagging. Those products containing low percentages of asbestos (10-15%), such as asbestos cement roofing sheets, are more robust. In these products the asbestos fibres are bound into the cement and will only be released if the material is badly damaged, broken or otherwise machined (cut, drilled, sanded etc).

The figures below show a few of the many practical uses of asbestos within both commercial and domestic properties:



**Figure 1:**  
Asbestos Cement Roofing Sheets



**Figure 2:**  
'Preformed' Thermal Pipe insulation



**Figure 3:**  
Floor Vinyl (with Asbestos Paper Backing)



**Figure 4:**  
Brakes containing asbestos rope products



**Figure 5:**  
Bakelite toilet cistern containing  
Bonded asbestos



**Figure 6:**  
Asbestos thermal insulation debris  
(contamination)



**Figure 7:**  
Sheeting (galbestos) containing  
asbestos



**Figure 8:**  
Asbestos sprayed 'Limpet' coating



**Figure 9:**  
Asbestos thermoplastic floor tiles  
(Asbestos is often found in the  
Bitumen adhesive beneath tiles)



**Figure 10:**  
Asbestos panel behind radiator