

# **ASBESTOS**

## **A Brief History**

### **INTRODUCTION**

Asbestos has been extensively used in a large variety of building materials in the past. The importation, supply and use of asbestos has been completely banned since 1999. However, many of our buildings still contain asbestos.

### **WHAT IS ASBESTOS?**

Asbestos is a general name given to several naturally occurring fibrous minerals that have crystallised to form long thin fibres. Naturally occurring asbestos minerals are widespread and are mined in countries such as Canada, South Africa and Zimbabwe. There are three main types of asbestos which were commercially used:-

- 1. CHRYSOTILE (WHITE)**
- 2. CROCIDOLITE (BLUE)**
- 3. AMOSITE (BROWN)**

The colours are not a reliable guide to identification as asbestos is usually mixed with other products.

### **WHY WAS IT USED?**

Asbestos fibres are resistant to heat, fire, chemical and biological degradation and are mechanically strong.

Asbestos fibre maintains its strength at high temperatures and has low heat conductivity making it ideal for use as insulation material in buildings.

It was used within insulation in heating installations where it was mixed with plaster

It was used extensively in the form of asbestos cement as it provided a readily mouldable light and strong product.

Many ceiling tiles were made using asbestos, utilising its acoustic/insulation properties.

Asbestos was available in large quantities and was cheap, the peak period for importation of asbestos into the UK occurred between 1960 and 1976.

It is estimated that over 5 million tonnes of asbestos has been imported into the UK.



## **WHY IS IT DANGEROUS?**

When materials that contain asbestos are disturbed or damaged, asbestos fibres are released into the air.

Asbestos fibres are tiny and needle-like in shape. When these fibres are inhaled they accumulate in the lungs and can cause serious diseases. These diseases will not affect you immediately and can take a long time to develop.

- **MESOTHELIOMA**

This is a cancer of the pleural and peritoneal linings. It is considered to be exclusively related to asbestos exposure. By the time it is diagnosed, it is almost always fatal. Mesothelioma has a long latency period (time between exposure and onset of disease) of at least 15 years sometimes as long as 50 years.

- **ASBESTOSIS**

This is scarring of the lung tissue. This scarring impairs the elasticity of the lung and hampers its ability to exchange gases, leading to inadequate oxygen intake to the blood. Asbestosis restricts breathing, leading to decreased lung volume and increased resistance in the airways. It is a slowly progressive disease with a latency period of 15 – 30 years.

- **LUNG CANCER**

This is a malignant tumour of the bronchi covering. The tumour grows through surrounding tissue, invading and often obscuring air passages. Again, the disease has a long latency period – typically at least 20 years.

Another disease associated with asbestos exposure is diffuse pleural thickening – a non malignant disease in which the lining of the lung (pleura) becomes scarred. Small areas of scarring are called pleural plaques. It normally takes at least 10 years after exposure to develop asbestos related pleural disease. The disease is a chronic condition with no cure.

## **THOSE AT RISK**

In the past those that have worked in heavy industry have traditionally been most at risk. More recently tradesmen e.g. electricians, plumbers, carpenters have been identified as the group of workers being most at risk of contracting an asbestos related disease.

For the year 2014/15 there were around 5000 deaths related to past exposure to asbestos, making asbestos the biggest single cause of death at work.

