

Asbestos diseases

There are several diseases associated with asbestos exposure. Not all of them are fatal, but all damage the health and quality of life of those who suffer them. All of them were, and are, predictable and preventable at the time of exposure. Exposure to asbestos dust does not mean anyone will definitely become ill. However, the only sure way to protect against anyone becoming ill is to prevent all exposure.

This factsheet gives information about these diseases and their effects.

How the diseases start

Asbestos fibres are harmful because they are extremely small and sharp. Ordinary-sized dust is caught and expelled by the body's defences before it can be breathed in to the lungs or swallowed into the stomach, but asbestos slips through. That's why it's the lungs and chest which suffer most, and sometimes the stomach.

At the microscopic level, asbestos fibres are sharp: once inside, they begin to damage the tissues.

There is no known safe level of exposure to asbestos dust. John Gummer MP when Environment Minister said: "One asbestos fibre can kill." However, not everyone exposed will become ill. All we know is that the more asbestos someone is exposed to the more likely it is they will become ill and that the only safe exposure is zero exposure.

Asbestos cancers generally take from 20 to 40 years to develop (the 'latency period'), although much shorter and longer periods have been recorded. Pleural thickening can happen more quickly.

Diagnosis

It is necessary to get an exact diagnosis from a specialist doctor via a GP's referral. People often refer to having "asbestos" when this isn't a term for a medical condition or "asbestosis" when they mean one of the other diseases.

Latency

Asbestos cancers generally take 20 to 40 years to develop, although much shorter and longer periods have been recorded. Pleural thickening can happen more quickly.

Mesothelioma

Mesothelioma is a cancer caused only by exposure to asbestos dust. It grows on the lining of the lung, gut (peritoneum) or very occasionally in the lining of the pericardium (the cavity in the chest where the heart sits). Sufferers tend to die within six to eighteen months following diagnosis.

The disease is sometimes noticed first by a build up of fluid in the area being affected, known as an effusion. This condition can be caused by other diseases such as an infection. The usual treatment is to drain the fluid and check it for any cancer cells.

Otherwise the disease is recognised when a patient reports pain to their GP and a growth is noticed on an x-ray or during a post mortem.

Currently there are several trials of different combinations of therapies and surgery looking to cure the disease or extend the life of the sufferer. It is generally felt that this has led to better care and comfort for the patient but has not significantly contributed to extending life. In April 2004 it was reported that Celebrex (a.k.a. celecoxib), an arthritis drug, shows signs of inhibiting mesothelioma growth.

The government keeps a register of all cancer deaths and all known mesothelioma cases are specifically recorded. Not all mesotheliomas are

correctly identified and therefore a small but significant number of mesothelioma deaths are not officially recognised and recorded. Fewer post mortems are now being done and this may also bring down recorded numbers.

But mesothelioma is sometimes not acknowledged to be caused by asbestos exposure: the government and other authorities say there are a small number of unexplained, "naturally occurring" mesothelioma cases where there is no evidence of asbestos exposure. The London Hazards Centre disagrees with the authorities over this point as there are too few of these cases to be significant, many insufficient investigations into likely sources of exposure, and there is enough potential for casual exposure for asbestos to be regarded as the cause of all mesotheliomas.

Mesothelioma of the lung is usually readily attributed to asbestos exposure. Mesothelioma of the lining of the stomach is a little less readily recognised. There is a real lack of recognition that asbestos can cause pericardial mesothelioma.

Lung and other cancers

It is officially recognised that asbestos exposure can cause lung and other cancers. This is known because epidemiological studies of asbestos worker deaths show a high lung cancer rate. Until recently the government's official position was that for every one mesothelioma death there are two lung cancer deaths specific to asbestos exposure. Now they only accept one lung cancer per mesothelioma case.

Other governmental and world experts say that even two lung cancers per mesothelioma is a gross underestimation of the likely relationship. The Centre rejects the government's downgrading of the ratio as a cynical number reduction exercise to give a false underestimate of the real situation.

It is, however, very difficult to say whether a specific cancer, other than mesothelioma, was caused by asbestos exposure. This is made even more difficult if the sufferer was a smoker at any time in their life as the interaction between smoking and asbestos exposure greatly increases the risk of cancer.

There is evidence that exposure to asbestos causes cancer of the larynx. It may also cause cancers at other sites in the body, e.g. the gut, colon, rectum and in the ovaries. Much of the evidence is in studies that are very small compared to those that established the cancer and mesothelioma risks for asbestos.

So evidence of asbestos exposure is crucial in any attempt to link cancers other than mesothelioma to asbestos.

Asbestosis

Asbestosis is a form of pneumoconiosis, a general term for a type of damage done to the interior of the lung by inhaled dust. The lung consists of millions of minute pockets called alveoli where oxygen and carbon dioxide are transferred to and from the blood. Microscopic dust that reaches the alveoli can damage the alveoli walls, causing scar tissue which then puts pressure on the neighbouring alveoli which break and scar, and so on. Over time this reduces the lung's ability to get oxygen into the blood and the result is shortness of breath, which can be extreme. To compensate for this the heart works harder and in the worst cases death comes because of heart failure. Mild asbestosis may not cause any noticeable symptoms but once scarring has taken hold the disease will get worse.

Seriously debilitating asbestosis has mainly affected people who worked unprotected with lots of the raw fibre, so such cases are becoming rarer.

There is no cure for asbestosis. In the latter stages some relief can be gained from oxygen which may be provided by a GP or hospital.

Pleural thickening

Asbestos related pleural thickening is what occurs when the lining of the lung, the pleura, hardens as a reaction to asbestos fibres in the lung. It can develop on one or both of the lungs. In severe cases it can restrict breathing. There is no cure for pleural thickening and it can reduce the quality of life with extreme cases being potentially life threatening. It is an indicator of previous asbestos exposure and may be a precursor to other asbestos diseases.

Pleural plaques

Asbestos related pleural plaques are small areas of localised thickening or scarring of the lining of the lung. Generally they are not regarded as causing any disability or symptoms but calcified plaques are regularly reported by sufferers as causing discomfort and considerable pain. Again there is no cure but the condition may be seen as an indicator of asbestos exposure and may be a precursor to other asbestos diseases.

Making the link

Post mortem

Following a death in which asbestos may be implicated, a post mortem should be sought to look for disease and for tissue samples to be taken for fibre

analysis. The fibre analysis may be crucial in proving an asbestos link, but a lack of fibre evidence in the tissue should not be regarded as disproving asbestos exposure.

Recording exposure

Anyone who thinks they have been exposed to asbestos fibre should get it noted on their GP's records. Doctors cannot predict whether someone will or won't become unwell: all that can be done is to record the event in case something indicates a problem later in life.

Evidencing exposure

Occupational exposure should be recorded in accident books but these are not required to be kept long enough for them to be around if needed forty years on. A letter recognising exposure from your employer should be sought and kept, although this may not be forthcoming. Evidence from your colleagues at work can be crucial in proving asbestos exposure at a later date. In non-occupational cases evidence of exposure should be sought and kept.

Asbestos factsheets

- ▲ *Management of asbestos in non-domestic premises*
- ▲ *Alternatives to Asbestos*
- ▲ *Asbestos In The Home*

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