



ASBESTOS IN AND AROUND YOUR HOME: WHAT IS THE RISK FOR DISEASE?

Asbestos products

Asbestos is a naturally occurring mineral that was widely used in building materials up to 1987. The most common asbestos products found within and around the home are asbestos cement products.

Examples of where asbestos products may be found;

- asbestos sheeting (fibro);
- roofing, shingles, guttering and downpipes;
- fencing;
- thermal boards around fireplaces;
- backing material on floor tiles and vinyl flooring;
- gaskets in wood stoves;
- water or flue pipes; and
- insulation used on hot water pipes, heaters and stoves.

It is not possible to determine with any certainty if a building material contains asbestos by simply looking at it. This identification can only be by expert microscopic examination by a laboratory accredited for this purpose.

Asbestos fibres in the air

We are all exposed to low levels of asbestos in the air we breathe every day. Ambient, or background, air usually contains between 10 and 200 asbestos fibres in every 1000 litres (or cubic metre) of air (equivalent to 0.01 to 0.20 fibres per litre of air) meaning we may breath up to 5000 fibres per day. However, it is extremely rare to get an asbestos-related disease from this level of exposure.

Some activities can intermittently increase the number of fibres in the air. For exposures in and around the home the most common of these activities is the improper renovation or demolition of asbestos sheeting, particularly if this involves cutting or drilling with a power tool. This can cause short-term, but sometimes very high increases in airborne asbestos fibres. Fibre levels will reduce soon after the activity is completed but this type of exposure can increase the risk of disease, especially if asbestos dust is not cleaned up.

Other things that can transiently increase your exposure to asbestos fibres in the air include;

- being near a removal or demolition where asbestos is not properly controlled;
- disturbing soil that is contaminated with asbestos; and
- being near asbestos being broken under moving vehicles

People are often concerned about broken fragments of asbestos cement materials lying around, as well as broken asbestos sheets and fences.

Asbestos fibres can be released from these but as most fibres are still bonded in the cement matrix the release of fibres will not contribute significantly to the background levels already in the air. However, it is strongly encouraged that any loose or broken fragments of asbestos cement material are collected and disposed of properly to avoid further damage

Asbestos and the risk of disease

Asbestos can cause serious illnesses such as mesothelioma, lung cancer and asbestosis. The level of exposure required to develop each of these diseases varies but there is no known safe exposure level of asbestos, particularly for mesothelioma. However, the risk of developing an asbestos-related disease with exposure levels the public may experience on a daily basis is extremely low. For example, the background rate for getting mesothelioma is about 1 per million people per year.

Just because you are exposed to asbestos DOES NOT mean you will get an asbestos-related disease, in fact it is very unlikely.

The risk of developing an asbestos-related disease increases with the number of asbestos fibres we are exposed to over time. People who used to work in the asbestos mining or processing industries were exposed to particularly high levels of asbestos, many hundreds and thousands of times higher than normal background levels, and that is why most asbestos disease is found in former asbestos workers. Their levels of exposure over time were also far greater than any levels we may encounter from the activities described above. However, not all people who worked with asbestos have developed an asbestos-related disease.

What is the risk from household activities?

It is not possible to accurately calculate the true risk of disease from household activities that can increase exposure to asbestos because it is not known how many people have undertaken these activities. A very small number of cases of mesothelioma occur each year in people who have not worked with asbestos products but have had exposure at home or in the general environment (there is no evidence of other asbestos-related diseases resulting from these activities). Unsafe handling of asbestos-containing material during home renovation is one activity that seems to be responsible for some of these cases. As stated above, home renovation involving asbestos products can increase the number of asbestos fibres in the air, especially if not done safely. The risk of mesothelioma from home renovations has recently been estimated to be about 5 – 10 times higher than background. This is still very low; 5 – 10 per million people who did renovations per year. It is important to note that this estimate is based on mesothelioma cases arising from DIY activities conducted between 50 and 20 years ago when the general population knew less about the dangers of asbestos and fewer precautions were taken when working with asbestos products. If adequate precautions are taken when doing DIY, exposure and the risk of disease should be low, although use of a licensed professional for any asbestos removal is encouraged especially for difficult or larger jobs

The risk of disease from other non-occupational asbestos exposures mentioned above is difficult to estimate but in Western Australia no cases of mesothelioma have been specifically attributed to these kinds of exposures.

Further information

A guide that provides useful information to enable householders to sensibly and safely manage the risks arising from occasional encounters with asbestos materials in and around their homes has been produced by the National Environmental Health Standing Committee (enHealth). The document can be found [here](#), and the following figure from it indicates the level of risk that may be associated with different types of exposure to asbestos fibre in air. It is strongly recommended that you consult that document before deciding to undertake any renovation in or around your home, particularly if you are uncertain about the presence of asbestos.

Other factsheets about asbestos in and around your home are available on the Department of Health website:

(<http://www.public.health.wa.gov.au/3/1143/2/asbestos.pm>)



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