

Mesothelioma and other lung disease associated with asbestos

This fact sheet includes information about asbestos and lung disease, especially mesothelioma. If you are after information about lung cancer, ask for a copy of the Cancer Council's booklet *Lung cancer: for people with cancer, their families and friends*.

What is asbestos?

Asbestos is a mineral rock that is made up of tiny fibres. For many decades, asbestos was mined and widely used in building materials and for insulation, fireproofing and sound absorption.

Why is asbestos dangerous?

When asbestos is disturbed, it forms a dust made up of tiny fibres. This can easily be breathed in and cause serious health problems, notably pleural plaque, asbestosis, lung cancer and mesothelioma.

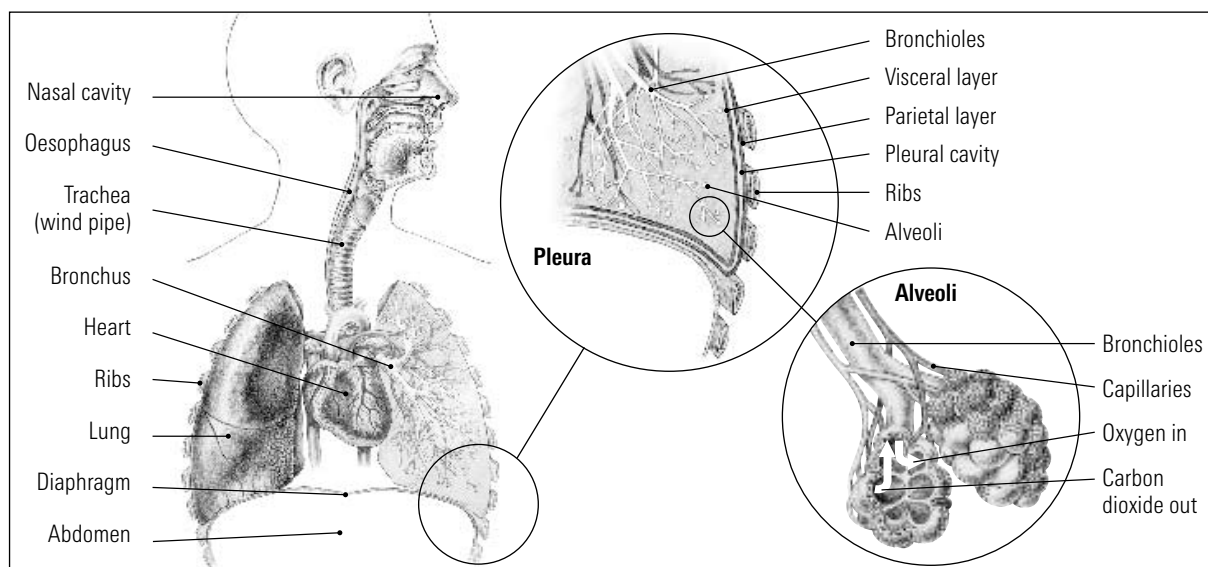
The health hazards of asbestos have become clear in recent decades. It is now illegal in Australia to store, sell, install or re-use any products containing asbestos. Any asbestos products that are already in place are allowed.

Who is at risk?

Almost everyone has been exposed to some asbestos fibres, but for most people the exposure and the risk are very small. People who have been exposed to asbestos fibres in their jobs are at greater risk. Such jobs include:

- mining or milling asbestos

The lungs



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- manufacture and repair of goods using raw asbestos fibres, such as brake linings
- use of products containing asbestos, for instance in building and construction, heating, shipyards, power stations, boiler making and plumbing
- alteration, repair or demolition of buildings or other structures containing asbestos.

It may take up to 30 or 40 years after exposure for any disease caused by asbestos to become evident. Most workers exposed to asbestos will not develop an asbestos-related disease.

What are the symptoms of asbestos-related disease?

If you have been exposed to asbestos you should tell your doctor. They will examine you and may refer you for tests, for example, a chest x-ray or lung function test. If you smoke, you should stop, since smoking can greatly increase your chance of asbestos-related lung cancer.

You should see your doctor if you have any of the following symptoms:

- shortness of breath
- a cough or change in the way you cough
- blood in the sputum you cough up from your lungs
- pain in your chest or abdomen
- difficulty in swallowing or prolonged hoarseness
- significant weight loss.

Diseases caused by asbestos

Pleural plaque

Pleural plaque is not cancer, and it does not cause cancer. It takes at least seven years to develop after asbestos exposure. It is quite common, generally causes no symptoms and generally requires no treatment. It may cause a dull pain, or, in rare cases, make you short of breath.

A plaque is a thickened patch, known as 'fibrosis', on the pleura. The pleura is the two layers of membrane that line the chest wall and cover the lungs.

While pleural plaque shows that you may have been exposed to asbestos, pleural thickening can also be caused by a lung infection.

If you have pleural plaque, it is important that you stop smoking. You need to see your doctor for regular check-ups and have a chest x-ray every three to five years. You may also need to have a lung function test.

Asbestosis

Asbestosis is not cancer but is a serious disease. It takes 10 years or more after asbestos exposure to develop. It causes scarring of the lungs and may lead to disability or even death.

When asbestos fibres stay deep in the lungs, scar tissue forms around them, and this may grow over years. The scar tissue can be seen on a chest x-ray. It stops oxygen moving into the bloodstream, so the person with asbestosis feels out of breath. The doctor will also hear 'crackles' in your chest—a bit like the sound made by rubbing hair between your fingers. These are signs of scar tissue in the lungs.

Asbestosis slowly progresses over time. Some treatments can help to improve quality of life. Extra oxygen can help some people—you should discuss this with your doctor.

Asbestosis usually develops in asbestos workers who have had a lot of exposure, so new cases in Australia are becoming uncommon.

People with asbestosis may also develop lung cancer.

Lung cancer

Lung cancer may not develop until decades or more after exposure, and is much more likely to develop in smokers and people with asbestosis.

If you have been exposed to asbestos and you smoke, your risk of lung cancer is very high—perhaps as much as 90 times that of non-smokers who have not been exposed to asbestos. If you have been exposed to asbestos, you may reduce your risk if you stop smoking. The risk continues to fall the longer you don't smoke.

For information about lung cancer and its treatment, see our booklet *Lung cancer: for people with cancer, their families and friends*.

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Mesothelioma

This is a fairly rare cancer that is very strongly linked with asbestos exposure. It can take 30 or 40 years after exposure to develop. The most common type starts in the pleura (the two layers of membrane that line the chest wall and cover the lungs).

Mesothelioma may occur in one or more places over the pleura. It forms growths shaped like small pieces of cauliflower. They grow and spread quickly to surrounding areas.

If asbestos fibres are 'breathed into' the stomach, they may also work their way through the stomach wall and cause mesothelioma in the lining of the abdomen (peritoneum). Occasionally, mesothelioma arises in the membrane around the heart or the reproductive organs.

Symptoms of mesothelioma

The cancer causes cells in the pleura to produce fluid, called a pleural effusion. The fluid builds up between the two layers of pleura and presses on the lungs. This causes shortness of breath and a dry cough, and can also be painful. As the cancer progresses, it can grow into the chest wall and ribs.

Mesothelioma in the peritoneum — 'peritoneal mesothelioma' — causes pain and a swollen abdomen, sometimes with nausea, vomiting, fever or bowel or urinary problems.

In both types, other symptoms may appear later, including rapid weight loss, spitting up sputum or blood, swallowing problems and a hoarse voice.

Treatment for mesothelioma

There is no proven cure for mesothelioma. The aim of treatment is to keep quality of life as good as possible. Although there is no proven cure, some people's prognosis is better than others, and occasionally, the doctors may hope for a cure.

Your decision about treatment will depend on how far your cancer has progressed, what you prefer and what your doctor suggests.

All treatments have good and bad points and risks, and you should talk these over with your doctor. Opinions may vary between different specialists, and some people will find it helpful to get a second opinion to weigh up the options.

Surgery

You may be advised to have an operation known as 'pleurectomy'. This is a major operation. The operation itself carries a risk of complications and death and cannot help everyone. For a few people, however, it may be worthwhile. If the cancer is found when it is still small, and you are otherwise fit, pleurectomy may help to gain a few more months or, sometimes, some years of good quality life.

Some surgeons also use phototherapy with surgery. This means that before the operation, a special substance is injected in a vein. This gets taken up by cancer cells and shows up under laser light. After removing the pleura, the surgeon uses a laser light to find extra cancer cells around the outside of the lungs, and destroys them with the laser. The down side of this treatment is that you must stay away from sunlight for the next twelve weeks.

The surgeon may also suggest removing part or all of a lung, if the cancer has spread into it.

Chemotherapy

Your doctor may recommend chemotherapy (treatment with drugs that kill cancer cells). This will usually be recommended if other treatments are not suitable or the cancer has regrown following other treatment. In many cases it may reduce the size of the cancer and reduce its symptoms.

Controlling the fluid build-up

Often the first concern with mesothelioma is to prevent or control the build up of fluid around the lungs (pleural effusion). The surgeon can

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put an irritant like surgical talcum powder into the pleural sac. The pleura becomes inflamed and the two layers stick together. This leaves no space for fluid, so the cells stop producing it. This is called pleurodesis. It is often done during thoracoscopy, when the doctor is looking inside the chest with a flexible instrument like a small telescope.

Pleurodesis does not work for everyone. Removing the pleura will also control fluid build up, but as discussed above, it is a major operation. Other possibilities include sucking the fluid out gently through a needle. The doctor may also put drugs through a tube into the chest to help prevent the fluid building up again.

Radiotherapy

Radiotherapy (treatment with radiation, such as x-rays) to small areas of the chest can often help control pain and shortness of breath. It cannot be used to treat the whole pleura because it would do too much damage to the lungs, heart and liver.

Treatment for peritoneal mesothelioma

If mesothelioma is in the lining of the abdomen — the peritoneum — surgery can often help. It is not often possible to remove all the cancer, but surgery may prolong life and can relieve symptoms such as bowel obstruction and pain. Radiotherapy and chemotherapy may also be used.

Side effects of treatment

In radiotherapy, the x-rays are carefully targeted to do as little damage as possible to normal body tissues. It may cause some side effects, but most go away after treatment stops. They can include tiredness, dry and sensitive skin in the treated area, a sore throat, and difficulty swallowing for a few days or weeks. It can also cause permanent changes ('fibrosis') in the lung tissue. This is not usually a problem unless high doses of radiotherapy are used to a large area.

The side effects of chemotherapy depend on the drugs used and can vary from person to person. The side effects usually go away after treatment stops. You should talk to your doctor about the side effects you might expect, and how to manage them.

With surgery there may be chest pain; this usually goes away or greatly improves over weeks to months.

Compensation for asbestos-related disease

If you developed lung disease after exposure to asbestos, you may be entitled to seek compensation. Contact your solicitor for information.

For more information contact the Cancer Council Helpline on 13 11 20 (cost of a local call). This is a confidential service staffed by cancer nurses. Information is available in languages other than English.

August 2007