



This Information Sheet is about mesothelioma, and the symptoms and treatments for mesothelioma.

Mesothelioma is a cancer of the mesothelium. The mesothelium lines the chest and abdomen, and surrounds the organs in both the chest and abdomen. The abdomen is the part of the body that contains the liver, stomach and bowel. In the chest, the mesothelium is called the pleura, in the abdomen it is called the peritoneum. Sometimes mesothelioma can spread into the area around the heart (pericardium).

Pleural mesothelioma (the most common type)

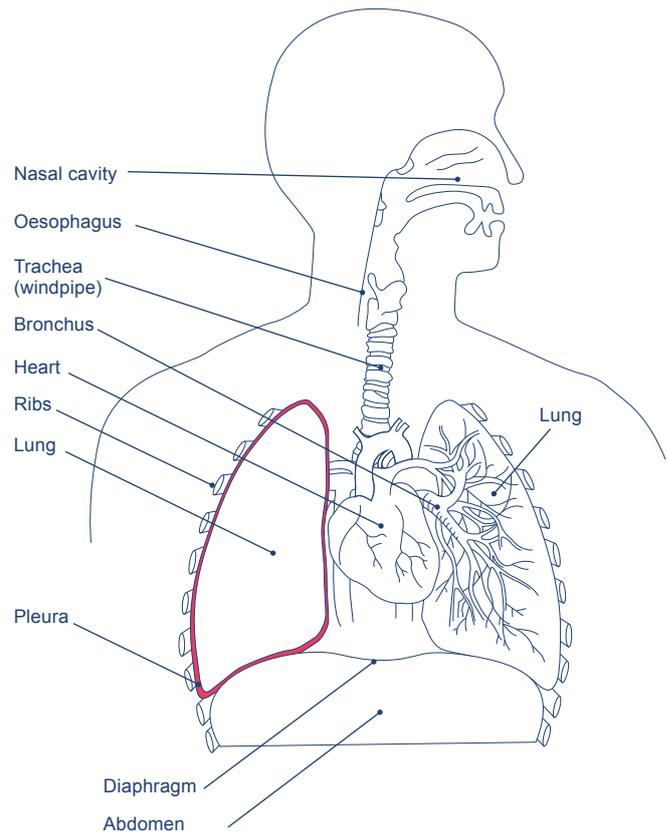
The pleura

The pleura are two fibrous sheets of tissue that cover the lungs and help to protect them. Doctors may call these the lining of the lungs. The term may be a bit confusing for non-medical people as they are on the outside of the lungs. The pleura are also sometimes called the pleural membranes. They are about the thickness of plastic food wrap. The inner (visceral) layer is attached to the lungs and the outer (parietal) layer lines the chest wall and diaphragm.

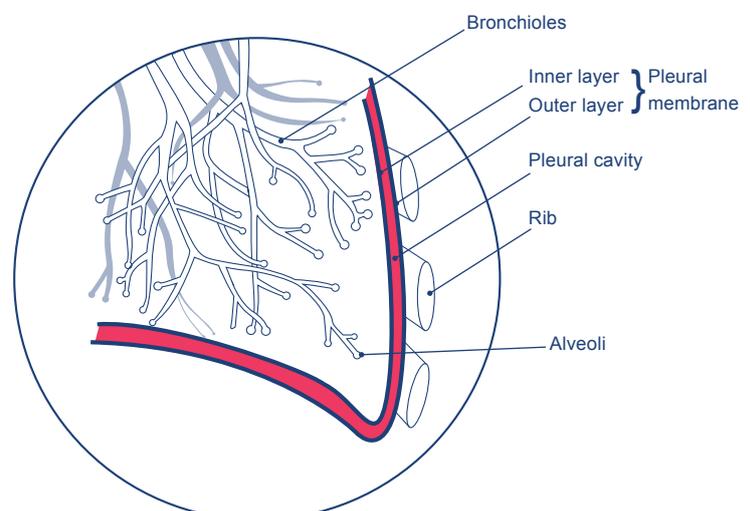
The gap between the two pleura is called the pleural space or cavity. The pleura produces a fluid that fills the gap. As we breathe, the fluid helps the lungs to move smoothly in the chest when they are inflating and deflating.

Pleural mesothelioma causes the pleura to thicken and many tiny lumps are formed. This thickening can press on the lung or attach itself to the inside of the chest wall making it harder for the lung to expand. Fluid collects between the two layers of the pleura and presses against the lung. This is called a pleural effusion.

The lungs



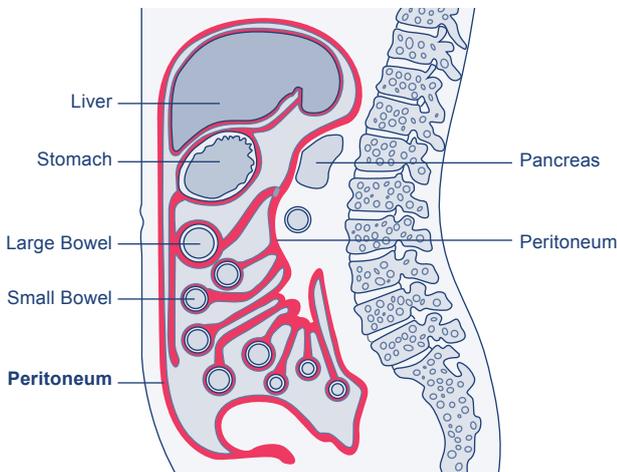
The pleura



Peritoneal mesothelioma

Peritoneal mesothelioma starts in the peritoneum. This is the sheet of tissue covering the internal organs in the abdomen. This sheet helps to protect the organs and allows them to move around in the abdomen. The peritoneum makes a fluid that helps to keep the abdominal organs moving freely and smoothly as we move around. Mesothelioma causes thickening of the linings surrounding the abdominal organs. It also causes a collection of fluid in the abdomen, this is called ascites.

Side view showing the abdomen



Causes of mesothelioma

Most mesothelioma is caused by exposure to asbestos. Asbestos is a mineral rock made up of masses of tiny fibres. Asbestos was widely used in building materials, insulation, fire proofing, and sound absorption. When asbestos is disturbed, it sends up fibres into the air that can be easily breathed in. Once the fibres are in the lung or abdomen, the body tries to break the fibres down and remove them, leading to inflammation.

Other causes of mesothelioma are not fully understood, but on rare occasions mesothelioma has been linked to exposure to radiation.

How common is mesothelioma?

In New Zealand in 2008, almost 100 new cases were recorded. Numbers are likely to increase, due to past workplace practices which exposed people to airborne asbestos fibres. Australian information states that it may take over twenty years after exposure for any disease caused by asbestos to show up (it can take up to and over 50 years). However, most workers exposed to asbestos won't develop mesothelioma.

Symptoms of mesothelioma

- Breathlessness
- Weight loss
- Sweating
- Chest wall pain (a dull, heaviness in the chest)
- A persistent, dry cough
- Abdominal pain and swelling (peritoneal mesothelioma)

Rare symptoms

- Difficulty swallowing, a hoarse voice or coughing up sputum or blood.

If you go to your GP with any of the symptoms listed above, your GP will examine you and arrange for you to have some blood tests and X-rays or they may send you to a specialist. Depending on your symptoms, this may be a lung specialist (for pleural mesothelioma) or a gastroenterologist (for peritoneal mesothelioma).

Diagnosis of mesothelioma

Mesothelioma is hard to diagnose. Mesothelioma may not show up on scans or X-rays until the lumps are quite large. A chest X-ray and/or CT scan may show thickening of the pleura or fluid on the lungs or in the abdomen. If fluid is there, a sample may be collected using local anaesthetic to make the area numb for passing a needle through the skin into the fluid.

Staging of mesothelioma

Staging is a way of describing whether a cancer has spread, and if so, how far. Stage 1 means it has not spread; Stage 4 means it has spread to other organs. Staging helps your doctor to work out the best treatment for you.

ACC funding

Your GP or your respiratory doctor must lodge a claim with ACC (Accident Compensation Corporation) using an ACC45 claim form (this is the normal ACC form that is used for all ACC claims). ACC will then send you and your doctor (by mail or email) a patient information pack. Once this information pack has been completed by you and your doctor the pack will then go back to ACC. Funding decisions are normally made within two to three weeks from the time ACC gets the completed forms (ACC National Asbestos Unit, November 2011).

Your cancer doctor may suggest treating you with a drug called pemetrexed (chemotherapy). Your cancer doctor will then need to complete another form to apply for funding for pemetrexed.

If you are eligible, the quicker your claim is sent to ACC, the faster you can receive funding for all you are entitled to.

How to prevent delay with ACC claims

Follow up with your GP to ensure this claim form is completed quickly.

If you are no longer working for the employer where your exposure to asbestos occurred, please state that in your form.

If you have email, ask to get the form by email so that you can speed up your claim.

Entitlements may include:

- loss of wages
- home help
- transport
- medicines
- equipment

- lump sum
- housing alterations, for example, rails and ramps.

Source: ACC National Asbestos Unit, November 2011.

To receive cover, evidence must show that exposure to asbestos happened in New Zealand during paid employment. If you are not entitled to ACC, your cancer doctor can put a claim for 'exceptional circumstances' to Pharmac for funding for pemetrexed.

Treatment for mesothelioma

Treatment for mesothelioma may include a combination of chemotherapy, radiation treatment, supportive care and, rarely, surgery. When mesothelioma is diagnosed, it has usually spread beyond the point where it can be removed by surgery. Although there is currently no cure for mesothelioma, the aim of treatment is to make sure you have good quality of life for as long as possible.

Your GP or respiration doctor must also complete a Notifiable Occupational Disease System form.

Chemotherapy

This is the treatment of cancer by anti-cancer drugs. The aim is to destroy cancer cells while doing the least possible damage to normal cells. The drugs work by stopping cancer cells from growing and reproducing.

Chemotherapy used to treat mesothelioma may cause:

- tiredness and feeling weak (fatigue)
- changes to your blood levels: increasing the risk of infection, bleeding and anaemia
- nausea and vomiting
- bowel problems (diarrhoea or constipation)
- mouth problems (sore, dry or ulcerated mouth)
- dietary problems (loss of appetite, taste changes, weight loss)
- muscle and nerve problems
- skin changes (rash, swelling, itchiness)
- changes in your ability to have children (fertility)
- hair loss and scalp problems (rare with the drugs used to treat mesothelioma)
- changes in your memory and ability to concentrate (think clearly). This usually improves once treatment is over.

If you are funded for pemetrexed chemotherapy through ACC, the hospital will need to re-apply for funding after your third cycle.

Radiation treatment

Radiation treatment treats cancer by using radiation to destroy cancer cells. Radiation can be directed to where the cancer is in your body. Treatment is carefully planned to do as little harm as possible to the rest of your body.

Radiation treatment is not often used to treat peritoneal mesothelioma. For people with pleural mesothelioma, radiation treatment to small areas of the chest often helps control pain.

Side effects can include tiredness, reddened and peeling skin, and loss of hair in the treatment area.

Other ways of managing symptoms

- Pleural mesothelioma may cause fluid to build up in your chest, causing difficulty breathing. Doctors insert a tube or catheter into your chest to drain the fluid. This may need to be done several times if fluid builds up again.
- Doctors may also insert a substance similar to talcum powder into your chest to prevent fluid from returning (pleurodesis).
- Ascites is a build-up of fluid in the abdomen that can occur with peritoneal mesothelioma. After an abdominal X-ray, a doctor will insert a tube or catheter into the abdomen to drain fluid.

Palliative care

Palliative care aims to help relieve symptoms such as pain and breathing problems. Palliative Care Services will also help support you and your family emotionally.

The Cancer Society has a booklet on advanced cancer for people with cancer and for carers of people with advanced cancer titled *Advanced Cancer/ Matepukupuku Maukaha: A guide for people with advanced cancer*. To receive a copy, call the cancer information nurses on the Cancer Information Helpline 0800 CANCER (226 237), contact your local Cancer Society for a copy, or view and download a copy from, the Cancer Society's website (www.cancernz.org.nz).

Cancer Society Volunteering, Information, and Supportive Care Services

Your local Cancer Society provides confidential information and support.

The Cancer Information Helpline is a Cancer Society service where you can talk about your concerns and needs with experienced cancer nurses. Phone the Cancer Information Helpline 0800 CANCER (226 237) or call your local Cancer Society and speak to supportive care services staff.

Suggested websites

Department of Labour <http://www.osh.dol.govt.nz/publications/booklets/asbestos-report-2010/report-2010.pdf>

Mesothelioma A guide for people with cancer, their families and friends from the Cancer Council Victoria <http://www.cancervic.org.au/downloads/booklets/Mesothelioma.pdf>

Eating Well During Cancer Treatment (booklet) www.cancernz.org.nz

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