



*"When you can't breathe...
nothing else matters"*TM

Pleural Mesothelioma

What is mesothelioma?

Australia has one of the highest rates of mesothelioma in the world. This is due to Australia's history of high rates of usage and mining of asbestos (a naturally-occurring mineral silicate utilised in commercial building and manufacturing).

Mesothelioma is a cancer typically related to exposure to asbestos that affects the mesothelium, a thin tissue membrane that covers internal organs of the body including the thoracic cavity (pleura), the heart sac (pericardium) and the abdominal cavity (peritoneum). The mesothelium supports and protects the body's organs and cavities while also providing a source of lubrication that helps the organs move and function.

While mesothelioma is difficult to diagnose, research shows that more than 90% of reported mesothelioma cases occur in the pleura (the lining of the lungs), and is called Pleural Mesothelioma, which is caused primarily by the inhalation of asbestos fibres into the lungs.

Symptoms of mesothelioma usually occur between 20 to 50 years after exposure – although exposure to asbestos does not necessarily result in the disease. Some people who have been exposed to asbestos will develop pleural plaques, a benign condition that does not seem to be related to mesothelioma.

Pleural Mesothelioma

Pleural Mesothelioma is a cancer that affects the pleura, the outer lining of the lung. The pleura has two layers; the inner (visceral) layer, next to the lung, and the outer (parietal) layer which lines the chest wall. These two layers of the pleura are in contact and slide over each other when we breathe.

Pleural Mesothelioma is formed when small asbestos fibres remain in the lung. While the human body is usually able to remove foreign particles the asbestos fibres are very small and embed themselves into the mesothelium (lining of the lung). As the body's immune system tries to rid the body of the asbestos fibres it causes permanent scarring and hardening of the surrounding tissue. As the disease progresses the lining of the lungs, in the affected area(s), thickens.

Symptoms of Pleural Mesothelioma

The symptoms of Pleural Mesothelioma are quite vague. The most common symptoms are breathlessness, chest pain, fatigue and weight loss. In most cases the first sign of something being wrong is when breathlessness or pain in the chest occurs as a result of an

effusion. This is when fluid accumulates in the space (pleural cavity) between the two layers of the pleural lining.

Symptoms of Mesothelioma include:

- Breathlessness
- Dry cough
- Pain in the chest or ribs area
- Fatigue
- Unexplained weight loss
- Night sweats or fever

These symptoms may be caused by this condition or may be due to other, less serious conditions. It is important to see a doctor about any symptoms you may have. Only a doctor can make a diagnosis. If you have come into contact with Asbestos or products containing Asbestos and experience any of these symptoms, you are encouraged to talk to your doctor.

Diagnosis of Pleural Mesothelioma

Pleural Mesothelioma is not an easy disease to diagnose. Often a number of investigations and hospital visits are required and even then it is not always possible to be certain that mesothelioma is present.

The diagnosis may be suspected based on chest X-ray and CT scan findings, and must be confirmed by a pathological examination from a biopsy. This is where tissue or fluid is removed from the affected area, placed under the microscope, and a pathologist makes a diagnosis when mesothelioma cells are found.

The steps involved in diagnosis may include:

- Providing a full and accurate medical history
- Providing an occupational history (including possible asbestos exposure)
- A fully physical examination
- Imaging such as:
 - Chest X-ray, CT, PET and/or MRI scans
- Biopsy – a collection of fluid and/or tissue biopsies

Glossary:

CT scan	Computerised tomography uses x-rays, to produce cross-sectional pictures of the body including the bones and soft tissues.
PET Scan	Positron emission tomography (PET) is a scanning technique which produces a picture of the activity of cells, particularly cancer cells in the body. To conduct the scan, a short-lived radioactive substance, is injected.

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MRI	Magnetic Resonance Imaging (MRI) is most commonly used to see the internal structure and function of the body. MRI provides much greater contrast between the different soft tissues of the body than (CT) does, making it especially useful in cancer imaging; however its use in the chest is limited because of breathing.
Biopsies	A biopsy is a medical test involving the removal of cells or tissues for examination under a microscope by a pathologist, to confirm or rule out cancer.

Treatment of Pleural Mesothelioma

There are many new developments and symptom management techniques that are improving the outlook for Pleural Mesothelioma patients. Your doctor will discuss the different types of treatment options with you and suggest which treatments may offer you the best outcome. There currently is no known cure for Pleural Mesothelioma, however each person is assessed and cared for as an individual with their own personalised care plan.

Treatment depends on the type of mesothelioma, the stage (extent) of disease and the patient's general health and preferences. Treatment options may include:

Surgery

For the majority of patients with Pleural Mesothelioma the role of surgery is specifically for pain and symptom relief, however, there are a small and potentially growing number of patients who at the time of diagnosis may be offered more radical treatment.

There are different forms of mesothelioma surgery aimed to reduce lung burden and improve breathing, thereby lengthening survival and increasing the period of disease free living. Other surgery is designed to relieve symptoms of the disease that can be quite debilitating and interfere with the patient's quality of life.

Due to the nature of mesothelioma and the fact that by the time a diagnosis is made the disease has usually reached an advanced stage, surgery is not a likely option. However, in some cases, surgery is suggested in order to remove as much of the cancer as possible and is often followed by other mesothelioma treatments such as chemotherapy and/or radiation.

Chemotherapy

Chemotherapy uses anti-cancer (cytotoxic) drugs to control cancer cell growth with the least possible damage to healthy cells. For the majority of Pleural Mesothelioma patients, systemic chemotherapy is often the only treatment option. While chemotherapy treatments have not proven curative in Pleural Mesothelioma they have been found to be valuable for pain relief (palliative) and symptom management and has been shown to improve survival rates.

Radiotherapy

Radiation therapy uses high energy ionising radiation targeted to kill and control the growth of cancer cells within a specific area. Radiation therapy for patients, like chemotherapy,

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Palliative Care

Palliative care seeks to provide a comprehensive patient centred model of care, with an integrated approach to psychological, physical, social, emotional and spiritual needs.

Palliative care also supports families and carers in their adjustments to some of the lifestyle changes they may have to face. A referral to palliative care team needs to be made at the time of diagnosis. This is to enable good symptom management and to develop a rapport with the team.

Living with Pleural Mesothelioma

Living with Pleural Mesothelioma can be difficult. Your family, friends and carers can be an important source of help and support. You and your support team (family or carer) are encouraged to communicate openly with your GP or a member of your healthcare team in order to better understand your disease and how it will affect you. Suggested topics to discuss include: symptoms and symptom management, treatment options, side effects of treatments, emotional and practical support, legal/financial matters, and general concerns you or your family may have.

Legal and financial matters for patients and carers affected by Pleural Mesothelioma

Legal and financial matters including: Wills, Power of Attorney, Enduring Guardianship, Advance Care Planning/Directives, Legal Entitlements/Compensation can be daunting topics to address in addition to the stress that comes along with a mesothelioma diagnosis. It is important to address these legal and financial matters but you do not need to do it alone. Specialist lung cancer nurses, social workers, your local cancer council or law firms who are experts in the area can help you work through these matters and navigate the various State specific legal and financial considerations.

For further information contact:

The Asbestos Diseases Society of Australia <http://www.asbestosdiseases.org.au> or call 1800 646 690

Asbestos Diseases Research Institute <http://www.adri.org.au/about.html> or call 02 9767 9800

Asbestos Diseases Foundation of Australia <http://www.adfa.org.au> or call 1800 006 196

Cancer Council Australia <http://www.cancer.org.au/> or call 13 11 20

State Based Organisations include:

NSW	Dust Disease Board	www.ddb.nsw.gov.au	Toll Free: 1800 550 027
VIC	Asbestoswise	www.asbestoswise.com.au	03 9654 9555
SA	Asbestos Victims Association	www.avasa.asn.au	
	Asbestos Diseases Society of SA Inc.	www.adssa-inc.com.au/	
QLD	Asbestos Related Disease Support Society Qld Inc.	www.asbestos-disease.com.au	1800 776 412
TAS	Asbestos Free Tasmania Foundation Inc. (AFTF)	www.asbestosfreetasmania.org.au	
ACT	Support Group once a month at the Canberra Hospital	http://www.actcancer.org/downloads/File/directory_emotional%20support_0513.pdf	
	Carers Australia	http://www.carersaustralia.com.au/	

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