

# Mesothelioma

Information for people with cancer

**This information should not be used to diagnose yourself or in place of a doctor's care.**

Mesothelioma is cancer that starts in the mesothelium. The mesothelium is a thin membrane that surrounds the organs inside your body. It makes a fluid that allows the organ to slide against other organs. For example, the fluid makes it easier for your lungs to move inside your chest while you breathe.

Mesothelioma can start in your chest (pleural), abdomen (peritoneal) and sometimes your heart (pericardial).

Mesothelioma is not a common cancer. The most common type of mesothelioma is pleural, in the lining outside of your lungs.

There is currently no cure for mesothelioma. At the time of diagnosis, most people have an advanced stage of mesothelioma. It is important to remember that survival depends on many things. Please talk to your doctor about your specific cancer.

## Diagnosis and Staging

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### What are the signs and symptoms of mesothelioma?

Early symptoms of mesothelioma are also symptoms of other, more common, illnesses. For this reason, mesothelioma may not be diagnosed right away.

If you have symptoms that last longer than several weeks, talk to your family doctor or nurse practitioner.

Symptoms often happen as the mesothelium thickens or as fluid builds up in the mesothelium.

#### General symptoms:

- Fatigue
- Fever
- Night sweats
- Weight loss

# Mesothelioma

Information for people with cancer

## Symptoms of pleural (chest) mesothelioma:

- Shortness of breath
- Chest pain
- Cough

## Symptoms of peritoneal (abdomen) mesothelioma:

- Abdominal pain or swelling
- Weight loss
- Nausea and vomiting

## Symptoms of pericardial (heart) mesothelioma:

- Shortness of breath
- Heart rhythm disturbances

If you have any signs or symptoms that you are worried about, please talk to your family doctor or nurse practitioner.

## How is mesothelioma diagnosed?

Tests that may help diagnose mesothelioma include:

- **X-ray:** will show if there is more fluid around the organ than is normal.
- **CT (Computed tomography) scan:** can show the size and location of the tumour and if the cancer has spread.
- **Thoracoscopy:** a thin tube with a camera on the end is put through a small cut in your chest. This allows the doctor to see inside your chest.
- **Biopsy:** a small amount of tissue or fluid is removed. A specialist doctor (pathologist) will examine the tissue under a microscope.

# Mesothelioma

Information for people with cancer

There are different ways to take a biopsy:

- **Needle biopsy:** a thin, hollow needle takes a tissue or fluid sample.
- **Endoscope:** a thin tube with a camera can grab pieces of tissue.
- **Surgery:** to get a sample or take out the entire tumour.

For more information on tests used to diagnose cancer, see our Recommended Websites - Screening and Diagnosis section: [bccancer.bc.ca/our-services/services/library/recommended-websites/screening-and-diagnosis-websites](http://bccancer.bc.ca/our-services/services/library/recommended-websites/screening-and-diagnosis-websites)

## What are the stages of mesothelioma?

Staging describes the cancer. Staging is based on how much cancer is in the body, where it was first diagnosed, if the cancer has spread and where it has spread to.

The stage of the cancer can help your health care team plan your treatment. It can also tell them how your cancer might respond to treatment and the chance that your cancer may come back (recur).

Only pleural mesothelioma staging is listed below. There is no staging system for peritoneal mesothelioma or pericardial mesothelioma.

### Pleural Mesothelioma staging:

- **Stage 1A:** Cancer is in the lining of the chest wall (parietal pleura) or the lining covering the lung (visceral pleura) on the same side of the chest as the tumour.
- **Stage 1B:**  
Same as Stage 1A but cancer has also grown into one of two places:
  - Diaphragm (a thin muscle below your lungs that separates your chest from your abdomen).
  - Tissues of your lung.

# Mesothelioma

Information for people with cancer

**OR**

Same as Stage 1A but tumour has grown into at least one of these areas:

- Connective tissue (fascia) that makes up part of the chest wall
  - Fat in the space between the lungs
  - Soft tissues of the chest wall (only one area)
  - Part way through the lining of the heart (pericardium)
- **Stage 2:** Cancer is in parietal pleura or the visceral pleura on the same side of the chest as the tumour. It may have also grown into at least one of these areas:
    - Diaphragm
    - Tissues of the lung

Cancer has also spread to lymph nodes in the chest on the same side of the body as the tumour.

- **Stage 3A:** Cancer is in parietal pleura or the visceral pleura on the same side of the chest as the tumour. It has also grown into at least one of these areas:
  - Connective tissue (fascia) that makes up part of the chest wall
  - Fat in the space between the lungs
  - Soft tissues of the chest wall (only one area)
  - Part way through the lining of the heart (pericardium)

Cancer has also spread to lymph nodes in the chest on the same side of the body as the tumour.

- **Stage 3B:** Cancer is in parietal pleura or the visceral pleura on the same side of the chest as the tumour. It may have also grown into at least one of these areas:
  - Diaphragm
  - Tissues of the lung

# Mesothelioma

## Information for people with cancer

- Connective tissue (fascia) that makes up part of the chest wall
- Fat in the space between the lungs
- Soft tissues of the chest wall (only one area)
- Part way through the lining of the heart (pericardium)

Cancer has also spread to lymph nodes on the other side of the chest from the tumour.

### OR

Cancer is in parietal pleura or the visceral pleura on the same side of the chest as the tumour. It may have also grown into at least one of these areas:

- Chest wall and may have grown into the ribs
  - Peritoneum (membrane that lines your abdominal cavity)
  - Parietal pleura (the lining around parts of your chest wall, diaphragm and heart) or visceral pleura (lining around your lungs) on the other side of the chest.
  - Esophagus (swallowing tube), trachea (windpipe), heart or large blood vessels in the space between the lungs (mediastinum)
  - Bones of the spine (vertebrae)
  - Spinal cord
  - Through the lining of the heart
- **Stage 4:** Cancer has spread to other parts of the body (distant metastasis). This is also called metastatic pleural mesothelioma.

For more information on staging, see our About Cancer page:

[bccancer.bc.ca/health-info/types-of-cancer/about-cancer](http://bccancer.bc.ca/health-info/types-of-cancer/about-cancer)

## Treatment

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### What is the treatment for mesothelioma?

Cancer treatment may be different for each person. It depends on your particular cancer. Your treatment may be different from what is listed here.

Some people have tumours that grow very slowly. If you have this type of tumour and do not have symptoms, you will have regular chest X-rays to see how the tumour is growing.

#### **Surgery**

- This is often not an option as the cancer may have grown into other areas or spread to other parts of the body.
- Some people may have their organ with cancer, or the lining of the organ with cancer, removed.
- People who have surgery will also likely have systemic therapy (chemotherapy) or radiation therapy.

#### **Radiation therapy** (uses high energy x-rays to kill or shrink cancer cells)

- Can help with symptoms.
- For more information about radiation therapy go to:  
[bccancer.bc.ca/our-services/treatments/radiation-therapy](http://bccancer.bc.ca/our-services/treatments/radiation-therapy)

#### **Systemic therapy (chemotherapy)**

- Usually given to those who are well enough to have this type of treatment.
- For more information about systemic therapy go to:  
[bccancer.bc.ca/our-services/treatments/systemic-therapy-\(chemotherapy\)](http://bccancer.bc.ca/our-services/treatments/systemic-therapy-(chemotherapy))

# Mesothelioma

Information for people with cancer

## Support and Symptom Control

- Prescription drugs can help control pain.
- Minor surgery can help drain fluid if the fluid builds up around your lungs (pleural effusions). This lets the lungs work better and helps with breathlessness.

## What is the follow-up after treatment?

- Follow-up testing and appointments are based on your type of cancer.
- After treatment, you may return to the care of your family doctor or specialist for regular follow-up. If you do not have a family doctor, please talk to your BC Cancer health care team.

## More Information

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### What causes mesothelioma and who gets it?

These are some of the risk factors for this cancer. Not all of these risk factors below may cause this cancer, but they may help the cancer start growing.

- Exposure to asbestos:
  - 60 - 70% (60 – 70 out of 100) of people with mesothelioma have been exposed to asbestos.
  - People at the highest risk of exposure to asbestos are those who work in these areas:
    - Asbestos industry.
    - Dockyards, especially if they take apart steam piping that is insulated with asbestos.

# Mesothelioma

## Information for people with cancer

- Manufacturing and handling of asbestos compounds.
  - Insulating and steam fitting.
  - Demolition and construction.
- Men get this cancer more often as they typically work in the above areas more than women [see note below, Statistics].
  - People who live with people who work in the above areas, especially if dirty work clothing is brought into the home.
  - Being 50-80 years old. This is because it takes 20-50 years for mesothelioma to develop after being exposed to asbestos.

### Statistics on mesothelioma

- B.C. statistics: [www.bccancer.bc.ca/health-info/disease-system-statistics/statistics-by-cancer-type](http://www.bccancer.bc.ca/health-info/disease-system-statistics/statistics-by-cancer-type)
- Canada statistics: [www.cancer.ca/en/cancer-information/cancer-type/mesothelioma/statistics/?region=bc](http://www.cancer.ca/en/cancer-information/cancer-type/mesothelioma/statistics/?region=bc)

**Note:** Available statistics do not have information about the inclusion of transgender and gender diverse participants. It is unknown how these statistics apply to transgender and gender diverse people. Patients are advised to speak with their primary care provider or specialists about their individual considerations and recommendations.

### Can I help prevent mesothelioma?

- Do not be exposed to asbestos.
- Since the early 1970's, there are laws that limit asbestos use and exposure.
- Asbestos fibres have been found in the lungs of people in the general population. This suggests that people may be exposed without knowing it.



# Mesothelioma

Information for people with cancer

## Is there screening for mesothelioma?

There is no screening for this type of cancer.

Screening of workers exposed to asbestos is not recommended. Screening does not extend the life of those diagnosed with mesothelioma.

## Where can I find more information?

- If you have questions about mesothelioma, please talk to your health care team.
- Our librarians can help you find the information you need. Visit our Library page: [bccancer.bc.ca/our-services/services/library](https://bccancer.bc.ca/our-services/services/library)
- BC Cancer Library Recommended Mesothelioma Websites: [bccancer.bc.ca/our-services/services/library/recommended-websites/types-of-cancer-websites](https://bccancer.bc.ca/our-services/services/library/recommended-websites/types-of-cancer-websites)
- Managing Your Symptoms: [www.bccancer.bc.ca/health-info/coping-with-cancer/managing-symptoms-side-effects](https://www.bccancer.bc.ca/health-info/coping-with-cancer/managing-symptoms-side-effects)
- Emotional Support: [www.bccancer.bc.ca/health-info/coping-with-cancer/emotional-support](https://www.bccancer.bc.ca/health-info/coping-with-cancer/emotional-support)