



Malignant Mesothelioma Early Detection, Diagnosis, and Staging

Detection and Diagnosis

Catching cancer early often allows for more treatment options. Some early cancers may have signs and symptoms that can be noticed, but that is not always the case.

- [Can Malignant Mesothelioma Be Found Early?](#)
- [Signs and Symptoms of Mesothelioma](#)
- [How Is Malignant Mesothelioma Diagnosed?](#)

Stages of Mesothelioma

After a cancer diagnosis, staging provides important information about the extent of cancer in the body and anticipated response to treatment.

- [Malignant Mesothelioma Stages](#)

Outlook (Prognosis)

Doctors often use survival rates as a standard way of discussing a person's outlook (prognosis). These numbers can't tell you how long you will live, but they might help you better understand your prognosis. Some people want to know the survival statistics for people in similar situations, while others might not find the numbers helpful, or might even not want to know them.

- [Survival Statistics for Mesothelioma](#)

Questions to Ask About Mesothelioma

Here are some questions you can ask your cancer care team to help you better

understand your diagnosis and treatment options.

- [What Should You Ask Your Doctor About Malignant Mesothelioma?](#)

Can Malignant Mesothelioma Be Found Early?

Mesothelioma is uncommon, and there are no widely recommended screening tests for this cancer in people who are not at increased risk. (Screening is testing for cancer in people who don't have any symptoms.)

For people with known exposure to asbestos, some doctors recommend imaging tests such as chest x-rays or computed tomography (CT) scans to look for changes in the lungs that might be signs of mesothelioma or lung cancer. But it is not clear how useful these tests are in finding mesotheliomas early.

In recent years, doctors have found that people with mesothelioma often have high levels of certain substances in their blood, including *osteopontin* and *soluble mesothelin-related peptides* (SMRPs). Blood tests for these substances may one day be useful in finding mesotheliomas early, as well as for monitoring the course of the disease in people who have mesothelioma.

Most mesotheliomas are found when a person goes to a doctor because of symptoms. People who have been exposed to asbestos should know the possible [signs and symptoms of mesothelioma](#). Many of these symptoms are more likely to be caused by something other than mesothelioma, but it's important to report any new symptoms to your doctor right away so that the cause can be found and treated, if needed.

- [References](#)

[See all references for Malignant Mesothelioma](#)

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Signs and Symptoms of Mesothelioma

Many of the early symptoms of mesothelioma are more likely to be caused by other

conditions, so at first people may ignore them or mistake them for common, minor ailments. Most people with mesothelioma have symptoms for at least a few months before they are diagnosed.

Symptoms of pleural mesothelioma (mesothelioma of the chest) can include:

- Pain in the side of the chest or lower back
- Shortness of breath
- Cough
- Fever
- Excessive sweating
- Fatigue
- Weight loss (without trying)
- Trouble swallowing (feeling like food gets stuck)
- Hoarseness
- Swelling of the face and arms

Symptoms of peritoneal mesothelioma can include:

- Abdominal (belly) pain
- Swelling or fluid in the abdomen
- Weight loss (without trying)
- Nausea and vomiting
- Constipation

These symptoms can be caused by mesothelioma, but more often they are caused by other conditions. Still, if you have any of these problems (especially if you have been exposed to asbestos), it's important to see your doctor right away so the cause can be found and treated, if needed.

- [References](#)

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How Is Malignant Mesothelioma

Diagnosed?

Mesothelioma is most often diagnosed after a person goes to a doctor because of [symptoms](#) they are having. If there is a reason to suspect you might have mesothelioma, your doctor will examine you and use one or more tests to find out. Symptoms might suggest that the problem could be mesothelioma, but tests will be needed to confirm the diagnosis.

Medical history and physical exam

If you have any signs or symptoms that suggest you might have mesothelioma, your doctor will want to get your medical history to learn about your symptoms and possible risk factors, especially asbestos exposure.

A physical exam can provide information about possible signs of mesothelioma and other health problems. Pleural mesothelioma can cause fluid to build up around the lungs in the chest (called a *pleural effusion*). In cases of peritoneal mesothelioma, fluid can build up in the abdomen (called *ascites*). In pericardial mesothelioma, fluid builds up in the sac around the heart (called a *pericardial effusion*). Rarely, mesothelioma can develop in the groin and look like a hernia. All of these might be found during a physical exam, such as when the doctor listens to these areas with a stethoscope or taps on the chest or abdomen.

If mesothelioma is a possibility, tests will be needed to make sure. These might include imaging tests, blood tests, and other procedures.

Imaging tests

Imaging tests use x-rays, radioactive particles, sound waves, or magnetic fields to create pictures of the inside of your body. Imaging tests might be done for a number of reasons, such as:

- To look at suspicious areas that might be cancer
- To learn how far cancer has spread
- To help determine if treatment is working

People thought to have mesothelioma may have one or more of these tests.

Chest x-ray

This is often the first test done if someone has symptoms such as a constant cough or shortness of breath. Findings that might suggest mesothelioma include an abnormal thickening of the pleura, calcium deposits on the pleura, fluid in the space between the lungs and the chest wall, or changes in the lungs themselves as a result of asbestos exposure.

Computed tomography (CT) scan

The CT scan uses x-rays to make detailed cross-sectional images of your body. Instead of taking one picture, like a regular x-ray, a CT scanner takes many pictures as it rotates around you while you are lying on a narrow table. A computer then combines these into images of slices of the body.

CT scans are often used to help look for mesothelioma and to determine the exact location of the cancer. They can also help determine the [stage](#) (extent) of the cancer. For example, they can show if the cancer has spread to other organs. This can help determine if surgery might be a treatment option. Finally, CT scans can also be used to learn if treatment such as chemotherapy is shrinking or slowing the growth of the cancer.

A CT scanner has been described as a large donut, with a narrow table that slides in and out of the middle opening. You will need to lie still on the table while the scan is being done. CT scans take longer than regular x-rays, and you might feel a bit confined by the ring while the pictures are being taken.

Before the test, you might have to drink a liquid called *oral contrast*. This helps outline the intestine so that certain areas are not mistaken for tumors. You might also need an IV (intravenous) line through which a different kind of contrast is injected. This helps better outline structures in your body. The injection can cause some flushing (redness and warm feeling). Some people are allergic and get hives or, rarely, more serious reactions like trouble breathing and low blood pressure. Be sure to tell the doctor if you have any allergies (especially to iodine or shellfish) or have ever had a reaction to any contrast material used for x-rays.

Echocardiogram

This test uses sound waves to look at the heart. It may be done if your doctor suspects that you have fluid around your heart (a pericardial effusion). This test can also tell how well the heart is working. For the most common version of this test, you lie on a table while a technician moves an instrument called a *transducer* over the skin on your chest. A gel is often put on the skin first.

Positron emission tomography (PET) scan

For a PET scan, a radioactive substance (usually a type of sugar related to glucose, known as *FDG*) is injected into the blood. The amount of radioactivity used is very low. Because cancer cells grow quickly, they absorb more of the sugar than most other cells. After waiting about an hour, you lie on a table in the PET scanner for about 30 minutes while a special camera creates a picture of areas of radioactivity in the body.

The picture from a PET scan is not as detailed as a CT or MRI scan, but it can provide helpful information about whether abnormal areas seen on these tests are likely to be cancerous or not. For example, it can give the doctor a better idea of whether a thickening of the pleura or peritoneum seen on a CT scan is more likely cancer or merely scar tissue. If you have been diagnosed with mesothelioma, your doctor may use this test to see if the cancer has spread to lymph nodes or other parts of the body. A PET scan can also be useful if your doctor thinks the cancer may have spread but doesn't know where.

Some machines can do both a PET and CT scan at the same time (PET/CT scan). This lets the doctor compare areas of higher radioactivity on the PET scan with the more detailed appearance of that area on the CT.

Magnetic resonance imaging (MRI) scan

Like CT scans, MRI scans make detailed images of the body's soft tissues. But MRI scans use radio waves and strong magnets instead of x-rays. A contrast material called *gadolinium* is often injected into a vein before the scan to better show details. This contrast is different than the one used for CT scans, so being allergic to one doesn't mean you are allergic to the other.

MRI scans can sometimes help show the exact location and extent of a tumor since they provide very detailed images of soft tissues. For mesotheliomas, they may be useful in looking at the diaphragm (the thin band of muscle below the lungs that helps us breathe), a possible site of cancer spread.

MRI scans take longer than CT scans – often up to an hour. You may have to lie inside a narrow tube, which can upset people with a fear of enclosed spaces. Special, more open MRI machines may be an option in some cases. The MRI machine makes buzzing and clicking noises that you might find disturbing. Some places will give you earplugs to help block this out.

Blood tests

Blood levels of certain substances are often higher in people with mesothelioma:

- Osteopontin
- Soluble mesothelin-related peptides (SMRPs), detected with the MesoMark[®] test

Mesothelioma can't be diagnosed with these blood tests alone, but high levels of these substances can make the diagnosis more likely. These tests are not routinely used in most doctors' offices because of their limited value.

Tests of fluid and tissue samples

Symptoms and test results may strongly suggest that a person has mesothelioma, but the actual diagnosis is made by removing cells from an abnormal area and looking at them under a microscope. This is known as a *biopsy*. It can be done in different ways, depending on the situation.

Removing fluid for testing

If there is a buildup of fluid in part of the body that might be due to mesothelioma, a sample of this fluid can be removed by inserting a thin, hollow needle through the skin and into the fluid. Numbing medicine is used on the skin before the needle is inserted. This may be done in a doctor's office or in the hospital. Sometimes ultrasound (or an echocardiogram) is used to guide the needle. These tests use sound waves to see inside the body.

This procedure has different names depending on where the fluid is:

- **Thoracentesis** removes fluid from the chest.
- **Paracentesis** removes fluid from the abdomen.
- **Pericardiocentesis** removes fluid from the sac around the heart.

The fluid is then tested for its chemical makeup and is looked at under a microscope to see if it contains cancer cells. If cancer cells are found, special tests might be done to see if the cancer is a mesothelioma, a lung cancer, or another type of cancer.

Even if no cancer cells are found in the fluid, a person might still have cancer. In many cases, doctors need to get an actual sample of the mesothelium (the pleura, peritoneum, or pericardium) to determine if a person has mesothelioma.

Needle biopsies

Suspected tumors in the chest are sometimes sampled by needle biopsy. A long, hollow needle is passed through the skin in the chest between the ribs and into the pleura. Imaging tests such as CT scans are used to guide the needle into the tumor so that small samples can be removed to be looked at under the microscope. This is often done using just numbing medicine.

Needle biopsy can also be used to get samples of the lymph nodes in the space between the lungs to see if the cancer has spread there (see “Endobronchial ultrasound needle biopsy”).

Needle biopsies do not require a surgical incision or overnight hospital stay. But the downside is that sometimes the samples removed are not big enough to make an accurate diagnosis. This is especially true for mesothelioma. A more invasive biopsy method may be needed.

There is a slight chance that the needle could put a small hole in the lung during the biopsy. This can cause air to build up in the space between the lung and the chest wall (known as a *pneumothorax*). A small pneumothorax might not cause any symptoms. It may only be seen on an x-ray done after the biopsy, and it will often go away on its own. But a larger pneumothorax can make part of a lung collapse and might need to be treated. The treatment is placement of a small tube (a catheter) through the skin and into the space between the lungs. The tube is used to suck the air out in order to re-expand the lung and is left in place for a short time.

Endoscopic biopsies

Endoscopic biopsy is commonly used to diagnose mesothelioma. An endoscope is a thin, tube-like instrument used to look inside the body. It has a light and a lens (or tiny video camera) on the end for viewing and often has a tool to remove tissue samples. Endoscopes have different names depending on the part of the body where they're used.

Thoracoscopy: This procedure uses an endoscope called a *thoracoscope* to look at areas inside the chest. It can be used to look at the pleura and take tissue samples for biopsies.

Thoracoscopy is done in the operating room while you are under general anesthesia (in a deep sleep). The doctor inserts the thoracoscope through one or more small cuts made in the chest wall to look at the space between the lungs and the chest wall. This

lets the doctor see possible areas of cancer and remove small pieces of tissue to look at under the microscope. The doctor can also sample lymph nodes and fluid and see if a tumor is growing into nearby tissues or organs.

Thoracoscopy can also be used as part of a procedure to keep fluid from building up in the chest. This is called *pleurodesis* and is discussed in [Palliative Procedures Used for Malignant Mesothelioma](#).

Laparoscopy: For this test, the doctor uses an endoscope called a *laparoscope* to look inside the abdomen and biopsy any peritoneal tumors. This is done in the operating room while you are under general anesthesia (in a deep sleep). The laparoscope is inserted into the abdomen through small cuts on the front of the abdomen.

Mediastinoscopy: If imaging tests such as a CT scan suggest that the cancer might have spread to the lymph nodes between the lungs, the doctor may want to sample some of them to see if they really contain cancer. The area between the lungs is called the *mediastinum*, and looking at it with an endoscope is called *mediastinoscopy*. This is done in an operating room while you are under general anesthesia (in a deep sleep).

A small cut is made in the front of the neck above the breastbone (sternum) and a thin, hollow, lighted tube (called a *mediastinoscope*) is inserted behind the sternum. Special instruments can be passed through this tube to take tissue samples from the lymph nodes along the windpipe and the major bronchial tube areas.

Lung cancers often spread to lymph nodes, but mesotheliomas do this less often. Testing the lymph nodes can help show whether a cancer is still localized or if it has started to spread, which might affect treatment options. It can also sometimes help tell lung cancers from mesotheliomas. Patients with mesothelioma don't need to have bronchoscopy to see if tumors are in their airways (because that isn't where tumors from mesothelioma are found). Instead, bronchoscopy may be used to biopsy lymph nodes near the lungs (instead of using mediastinoscopy).

Endobronchial ultrasound needle biopsy: For this test, a bronchoscope (a long, thin, flexible, fiber-optic tube) with an ultrasound device at its tip is passed down the throat and into the windpipe. The ultrasound lets the doctor see the nearby lymph nodes. A hollow needle is then passed down the bronchoscope and through the airway wall into the nodes to take biopsy samples. This procedure may be done with either general anesthesia (where you are asleep), or with numbing medicine (local anesthesia) and light sedation.

Open surgical biopsy

Sometimes, endoscopic biopsies aren't enough to make a diagnosis, so more invasive procedures are needed. By making an incision in the chest (thoracotomy) or an incision in the abdomen (laparotomy) the surgeon can remove a larger sample of tumor or, sometimes, remove the entire tumor.

Testing the samples in the lab

No matter how they're obtained, all biopsy and fluid samples are sent to the pathology lab. There, a doctor will look at them under a microscope and test them to find out if they contain cancer cells (and if so, what type of cancer it is).

It's often hard to diagnose mesothelioma by looking at cells from fluid samples. It can even be hard to diagnose mesothelioma with tissue from small needle biopsies. Under the microscope, mesothelioma can often look like other types of cancer. For example, pleural mesothelioma can resemble some types of [lung cancer](#), and peritoneal mesothelioma in women may look like some cancers of the [ovaries](#).

For this reason, special lab tests are often done to help tell mesothelioma from some other cancers. To learn about some of the tests that might be done on tissue samples, see [Testing Biopsy and Cytology Specimens for Cancer](#).

If mesothelioma is diagnosed, the doctor will also determine what [type of mesothelioma](#) it is, based on the patterns of cells seen in the microscope. Most mesotheliomas are classified as either epithelioid, sarcomatoid, or mixed/biphasic.

Pulmonary function tests

If mesothelioma has been diagnosed, pulmonary function tests (PFTs) may be done to see how well your lungs are working. This is especially important if [surgery](#) might be an option to treat the cancer. Surgery often requires removing part or all of a lung, so it's important to know how well the lungs are working to start with. These tests can give the surgeon an idea of whether surgery may be an option, and if so, how much lung can safely be removed safely.

There are a few different types of PFTs, but they all basically have you breathe in and out through a tube connected to a machine that measures your lung function.

- [References](#)

[See all references for Malignant Mesothelioma](#)

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Malignant Mesothelioma Stages

After someone is diagnosed with malignant mesothelioma, doctors will try to figure out if it has spread, and if so, how far. This process is called *staging*. The stage of a cancer describes how much cancer is in the body. It helps determine how serious the cancer is and [how best to treat it](#). Doctors also use a cancer's stage when talking about survival statistics.

The stages of mesothelioma range from I (1) through IV (4). As a rule, the lower the number, the less the cancer has spread. A higher number, such as stage IV, means cancer has spread more. And within a stage, an earlier letter means a lower stage. Although each person's cancer experience is unique, cancers with similar stages tend to have a similar outlook and are often treated in much the same way.

How is the stage determined?

Malignant pleural mesothelioma (MPM), the most common type, is the only mesothelioma for which a formal staging system exists. These mesotheliomas start in the pleura, which includes the lining of the lungs and the inner lining of the chest wall.

The staging system most often used for MPM is the American Joint Committee on Cancer (AJCC) **TNM** system, which is based on 3 key pieces of information:

- The extent (size) of the main **tumor (T)**: Has the cancer grown into nearby structures or organs? Is it possible to remove it with surgery?
- The spread to nearby lymph **nodes (N)**: Has the cancer spread to nearby lymph nodes?
- The spread (**metastasis**) to distant sites (**M**): Has the cancer spread to distant organs such as the bones, the liver, the lung or pleura (lining of the lung) on the other side of the body, or the peritoneum (the lining of the abdomen)?

Numbers or letters after T, N, and M provide more details about each of these factors. Higher numbers mean the cancer is more advanced. Once a person's T, N, and M

categories have been determined, this information is combined in a process called stage grouping to assign an overall stage. For more information, see [Cancer Staging](#).

The system described below is the most recent AJCC system, effective as of January 2018. **It is used only for malignant pleural mesotheliomas.** Mesotheliomas starting in other places are less common and do not have formal staging systems.

MPM is typically given a *clinical stage* based on the results of a physical exam, biopsy, and imaging tests (as described in [How Is Malignant Mesothelioma Diagnosed?](#)). If surgery is done, the *pathologic stage* (also called the *surgical stage*) is determined by examining tissue removed during the operation.

Cancer staging can be complex, so ask your doctor to explain it to you in a way you understand.

Stages of malignant pleural mesothelioma

AJCC Stage	Stage grouping	Stage description*
IA	T1 N0 M0	Mesothelioma is in the pleura lining the chest wall on one side of the chest. It may or may not also affect the pleura lining the diaphragm (the thin breathing muscle below the lungs), the mediastinum (the space between the lungs), or the pleura covering the lung (T1). It has not spread to nearby lymph nodes (N0) or to distant sites (M0).
	T2 N0 M0	Mesothelioma is in the pleura lining the chest wall on one side of the chest, as well as in the pleura coating the diaphragm, the mediastinum, and the lung. It also has grown into the diaphragm or the lung itself (T2). It has not spread to nearby lymph nodes (N0) or to distant sites (M0).
IB	OR	
	T3 N0 M0	The mesothelioma has grown into nearby structures but may still possibly be removed (resected) with surgery (T3). The tumor is in the pleura lining the chest wall on one side of the chest, as well as the pleura coating the lung, the diaphragm, and the mediastinum on the same side. It also has grown into at least one of the following: <ul style="list-style-type: none"> • The first layer of the chest wall (called the <i>endothoracic fascia</i>) • The fatty tissue in the mediastinum

		<ul style="list-style-type: none"> • A single place in the deeper layers of the chest wall • The surface of the pericardium (outer covering layer of the heart) <p>The cancer has not spread to nearby lymph nodes (N0) or to distant sites (M0).</p>
II	T1 or T2 N1 M0	<p>Mesothelioma is in the pleura lining the chest wall on one side of the chest (T1), and it may have grown into the diaphragm or the lung itself (T2). The cancer has spread to nearby lymph nodes on the same side of the body as the main tumor (N1). It has not spread to distant sites (M0).</p>
IIIA	T3 N1 M0	<p>The mesothelioma has grown into nearby structures but may still possibly be removed (resected) with surgery (T3). The tumor is in the pleura lining the chest wall on one side of the chest, as well as the pleura coating the lung, the diaphragm, and the mediastinum on the same side. It also has grown into at least one of the following:</p> <ul style="list-style-type: none"> • The first layer of the chest wall (called the <i>endothoracic fascia</i>) • The fatty tissue in the mediastinum • A single place in the deeper layers of the chest wall • The surface of the pericardium (outer covering of the heart) <p>The cancer has spread to nearby lymph nodes on the same side of the body as the main tumor (N1). It has not spread to distant sites (M0).</p>
IIIB	T1-T3 N2 M0	<p>The mesothelioma may or may not have grown into nearby structures, but it may still possibly be removed (resected) with surgery (T1 to T3). The cancer has spread to nearby lymph nodes on the other side of the body, or to lymph nodes above the collarbone (supraclavicular lymph nodes) on either side (N2). It has not spread to distant sites (M0).</p>
	T4 Any N M0	<p>The mesothelioma has grown too far to be removed completely with surgery (T4). The tumor is in the pleura lining the chest wall on one side of the chest, as well as the pleura coating the lung, diaphragm, and mediastinum on the same side. The tumor also has grown into at least one of the following:</p> <ul style="list-style-type: none"> • More than one place in the deeper layers of the chest wall, including the muscle or ribs • Through the diaphragm and into the peritoneum • Any organ in the mediastinum (esophagus, trachea,

		thymus, blood vessels) <ul style="list-style-type: none"> • The spine • Across to the pleura on the other side of the chest • Through the heart lining (pericardium) or into the heart itself The cancer may or may not have spread to nearby lymph nodes (any N). It has not spread to distant sites (M0).
IV	Any T Any N M1	The mesothelioma may or may not have grown into nearby structures (any T). It may or may not have spread to nearby lymph nodes (any N). It has spread to distant organs such as the bones, the liver, the lung or pleura on the other side of the body, or the peritoneum (the lining of the abdomen) (M1).

* The following additional categories are not listed on the table above:

- **TX:** Main tumor cannot be assessed due to lack of information.
- **T0:** There is no evidence of a primary tumor.
- **NX:** Nearby lymph nodes cannot be assessed due to lack of information.

Resectable versus unresectable cancer

The TNM system groups mesotheliomas into several stages that help give doctors an idea about a person's prognosis (outlook). But for treatment purposes, doctors often use a simpler system, based on whether the cancer is likely to be **resectable** (where all visible tumor can be removed by [surgery](#)) or **unresectable**.

In general, most stage I and II mesotheliomas, as well as some stage III mesotheliomas, are potentially resectable, but there are exceptions. Whether the cancer can be removed depends not only on how far the tumor has grown, but also on its subtype (most doctors believe only epithelioid and mixed/biphasic tumors are potentially resectable), where it's located, and if the patient is healthy enough to have surgery.

Even for resectable mesotheliomas, in most cases cancer cells that can't be seen are left behind after surgery. For this reason, many doctors use other treatments ([radiation therapy](#) and/or [chemotherapy](#)) along with surgery when possible.

Other prognostic factors

Stage is an important factor in predicting a person's prognosis (outlook), but other

factors also play a role. Some factors linked to longer survival times include:

- Still being able to carry out normal daily tasks
- Being younger
- Being female
- Having the epithelioid subtype of mesothelioma
- Having normal levels of LDH in the blood
- Having normal levels of red blood cells, white blood cells, and platelets
- [References](#)

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Survival Statistics for Mesothelioma

Survival rates tell you what portion of people with the same type and stage of cancer are still alive a certain amount of time (such as 5 years) after they were diagnosed. They can't tell you how long you will live, but they may help give you a better understanding about how likely it is that your treatment will be successful. Some people will want to know the survival rates for their cancer, and some people won't. If you don't want to know, you don't have to.

What is a survival rate?

Statistics on the outlook for a certain type and stage of cancer are often given as survival rates. For example, the 5-year survival rate is the percentage of people who live at least 5 years after being diagnosed with cancer. A 5-year survival rate of 50% means that an estimated 50 out of 100 people who have that cancer are still alive 5 years after being diagnosed. Many of these people live much longer than 5 years after diagnosis.

But keep in mind that survival rates are estimates – your outlook can vary based on a number of factors specific to you.

Cancer survival rates don't tell the whole story

Survival rates are often based on previous outcomes of large numbers of people who had the disease, but they can't predict what will happen in any particular person's case. There are a number of limitations to remember:

- The numbers below are among the most current available. But to get 2-year and 5-year survival rates, doctors have to look at people who were treated at least several years ago. As treatments are improving over time, people who are now being diagnosed with mesothelioma may have a better outlook than these statistics show.
- These statistics are based on the stage of the cancer when it was first diagnosed. They do not apply to cancers that later come back or spread, for example.
- The outlook for people with mesothelioma varies by the [stage](#) (extent) of the cancer – in general, the survival rates are higher for people with earlier stage cancers. But many [other factors](#) can also affect a person's outlook, such as a person's age and overall health, where the cancer is in the body, what type of mesothelioma it is, and how well the cancer responds to treatment. The outlook for each person is specific to their circumstances.

Your doctor can tell you how these numbers may apply to you, as he or she is familiar with your particular situation.

Survival rates for malignant pleural mesothelioma

The numbers below come from thousands of people from all over the world who were diagnosed with **malignant pleural mesothelioma (MPM)**, mainly between the years 2000 and 2013. These numbers are only for mesotheliomas that start in the inner lining of the chest (the pleura), which is the most common place for mesothelioma to start.

Here are the 2-year and 5-year survival rates, by stage, for MPM:

- For stage IA cancers, the 2-year survival rate is about 46%, and the 5-year survival rate is about 16%.
- For stage IB cancers, the 2-year survival rate is about 41%, and the 5-year survival rate is about 13%.
- For stage II cancers, the 2-year survival rate is about 38%, and the 5-year survival rate is about 10%.
- For stage IIIA cancers, the 2-year survival rate is about 30%, and the 5-year survival rate is about 8%.
- For stage IIIB cancers, the 2-year survival rate is about 26%, and the 5-year survival rate is about 5%.
- For stage IV cancers, the 2-year survival rate is about 17%, and the 5-year survival rate is less than 1%.

Along with the stage of the cancer, the outlook for people with MPM can also be affected by [other factors](#). For example, the type of mesothelioma, based on how the cancer cells are arranged when seen in the lab, is important. The epithelioid type tends to have a better outlook than the other types, such as sarcomatoid or mixed (biphasic) MPM. Other factors can be important as well.

Remember, these survival rates are only estimates – they can't predict what will happen to any individual person. We understand that these statistics can be confusing and may lead you to have more questions. Talk to your doctor to better understand your specific situation.

- [References](#)

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What Should You Ask Your Doctor

About Malignant Mesothelioma?

It's important to have honest, open discussions with your cancer care team. You should feel free to ask any question, no matter how small it might seem. Here are some questions you might want to ask:

- What [kind of mesothelioma](#) do I have?
- Has my cancer spread beyond where it started?
- What is the [stage](#) (extent) of the cancer, and what does that mean?
- Is my cancer likely to be resectable (removable by [surgery](#))?
- Do I need other [tests](#) before we can decide on treatment?
- Do I need to see any other types of doctors?
- How much experience do you have treating this type of cancer?
- Should I get a second opinion? Can you recommend someone?
- What are my [treatment options](#)?
- What is the goal of treatment?
- What do you recommend and why?
- How quickly do we need to decide on treatment?
- What should I do to be ready for treatment?
- How long will treatment last? What will it be like? Where will it be done?
- What risks or side effects are there to the treatments you suggest?
- How will treatment affect my daily activities?
- What will we do if the treatment doesn't work or if the cancer recurs?
- What type of [follow-up](#) might I need after treatment?

Along with these sample questions, be sure to write down some of your own. For instance, you might want more information about recovery times. Or you may want to ask if you qualify for any [clinical trials](#).

Keep in mind that doctors aren't the only ones who can give you information. Other health care professionals, such as nurses and social workers, can answer some of your questions. To find out more about speaking with your health care team, see [The Doctor-Patient Relationship](#).

- [References](#)

[See all references for Malignant Mesothelioma](#)

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