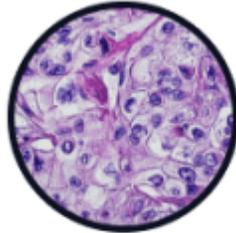


# What Is Epithelial Mesothelioma?

## Epithelial Cell Type of Mesothelioma



Epithelial cells are long (columnar) or square (cuboidal) and indicate a favorable mesothelioma prognosis.

Epithelial mesothelioma, or epithelioid mesothelioma, is a rare cancer that occurs when epithelial cells in the mesothelium turn cancerous and form tumors. The mesothelium is the protective tissue that lines the lungs, abdomen, heart and testes. Asbestos fibers irritate the cells in this tissue and are the primary cause of epithelioid mesothelioma.

Epithelial mesothelioma is the most common mesothelioma cell type, accounting for 50% to 70% of all mesothelioma cases. It can develop in the lining of the lungs (pleural), abdomen (peritoneal), heart ([pericardial](#)) or testes ([testicular](#)).

Patients with the epithelial mesothelioma live an average of 18 months; a life expectancy that's much longer than those with [biphasic](#) or [sarcomatoid](#) cell types. Epithelial cells respond better than others to aggressive treatment.

### Key Facts About Epithelioid Mesothelioma

- About 54% of [pleural mesothelioma](#) tumors contain epithelial cells.
- Doctors diagnose 1,500 to 2,100 epithelioid mesothelioma patients annually.
- Epithelial mesothelioma accounts for 50% to 70% of all cases.
- Epithelioid cells comprise about 75% of [peritoneal mesothelioma tumors](#).
- The epithelioid type has the best prognosis of all [types of mesothelioma](#).

### What Causes Epithelial Mesothelioma?

The primary [risk factor](#) and [cause of epithelioid mesothelioma](#) is the same as other cell types of mesothelioma: Asbestos exposure. Inhalation or ingestion of asbestos fibers causes tissue inflammation and DNA damage, leading to cancer development decades later.

Asbestos fibers cause inflammation in the mesothelium. This protective internal lining is composed of tissue called epithelium because it's made of epithelial cells.

Most people diagnosed with epithelioid mesothelioma worked with asbestos products long before their diagnosis. All mesothelioma cell types have a latency period of 20 to 60 years. The first symptoms may not show up for decades after the initial asbestos exposure.



### **Find a Top Mesothelioma Doctor**

Gain access to top mesothelioma doctors and get help scheduling appointments.

[\*\*Connect Now\*\*](#)

## **Epithelioid Mesothelioma Symptoms**

Epithelioid [mesothelioma signs and symptoms](#) often include cough, shortness of breath and lack of appetite. As the disease progresses, more severe symptoms may appear. Many symptoms depend on tumor location and size.

### **Common Symptoms of Epithelioid Mesothelioma**

- Abdominal pain or bloating
- Bowel or bladder changes
- Chest tightness or pain
- Cough, hoarseness or difficulty swallowing

- Difficulty breathing
- Fatigue
- Fever or night sweats
- Fluid buildup in the chest or abdomen (effusion)
- Loss of appetite
- Nausea, vomiting or diarrhea
- Unexplained weight loss

Mesothelioma cancer symptoms are the same, no matter the cell type. A person with epithelial tumors will have symptoms like those with the sarcomatoid type. However, the cell type affects which treatments are most helpful. Talk to your doctor if you experience any of these symptoms.

### Survivor Story



**Christine S.** Mesothelioma Survivor

#### **Facing Epithelial Malignant Mesothelioma**

Christine S. was diagnosed with epithelial malignant mesothelioma on October 11, 2007. She underwent multiple courses of chemotherapy, including six rounds of chemo with Alimta, which helped shrink her cancer. Throughout her journey, she emphasized the importance of seeking advice from medical professionals and coming to terms with her diagnosis.

[Read Christine's Story](#)

## **How Is Epithelioid Mesothelioma Diagnosed?**

A [tissue biopsy](#) is the only way to diagnose epithelial mesothelioma. This procedure samples the lung tissue to confirm the cell type under a microscope. Epithelial mesothelioma cells clump together in groups and don't tend to travel. These cell types are less likely to spread to other areas of the body.

“Epithelial subtype mesothelioma describes the type of cells the pathologist is seeing under the microscope when they look at a patient's tumor,”

mesothelioma specialist [Dr. Andrea Wolf](#) of Mount Sinai Hospital told The Mesothelioma Center at [Asbestos.com](#).

## Diagnosing Epithelial Mesothelioma

- Diagnosing epithelioid mesothelioma requires a biopsy.
- [Imaging scans](#) can show abnormalities but alone cannot diagnose cancer.
- [Blood tests](#) aren't helpful for diagnosis, but research is ongoing to make them more effective.

Epithelial mesothelioma cells can take on a variety of shapes and sizes. These include cuboid (square), columnar (long) or squamous (flat). The cells also carry DNA within a visible nucleus.

The Patient Advocates at The Mesothelioma Center say many newly diagnosed patients who call to ask [questions about their mesothelioma diagnosis](#) typically don't know their cell type. It's important to ask your doctor about cell type because it will help you understand your symptoms, treatment and prognosis.

## Understanding Your Pathology Report

After a biopsy, the pathologist will create a report for your physician. The [pathology report](#) describes the [types of mesothelioma cells](#) found in a patient's tumors and a final diagnosis.

The specimen description section of your pathology report will include which cell type was found. The cell type informs your doctor how your cancer might progress. It also determines which treatment options may be best for you. When I first speak with a patient, I ask about their diagnosis and cell type. If they say they don't know, I explain how to find it on their pathology report. I also explain the three cell types and their meaning for their mesothelioma journey.



**Danielle DiPietro**, Patient Advocate

Patient Advocates can help people with mesothelioma understand their pathology report. They can walk you through each section and explain what the information means about your diagnosis and potential treatment options.

## Diagnosing Epithelial Mesothelioma With Immunohistochemistry

[Immunohistochemistry](#) is a technique for studying cancer tissues. Pathologists use tests to identify certain proteins associated with epithelial cells. If pathologists identify proteins found in other cancers instead, they'll rule out epithelioid mesothelioma.

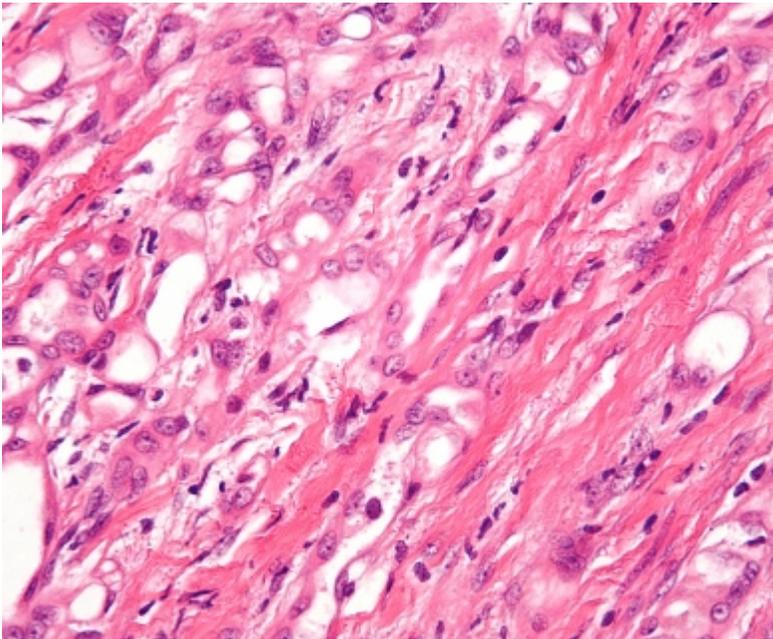
The proteins that help doctors identify epithelioid mesothelioma from different types of cancer include: Calretinin, D2-40, keratin 5/6, podoplanin and WT-1 protein. An official diagnosis relies on more than immunohistochemistry, however, including the tumor's appearance, location and other types of cell characteristics.

### Epithelial Cell Subtypes

Pathologists can identify epithelioid cell subtypes with immunohistochemistry. If you have a specific subtype, it could influence your treatment options or mesothelioma prognosis. Rare subtypes could lead to a [misdiagnosis](#). Some epithelioid cell subtypes, such as adenomatoid, are associated with a better [mesothelioma survival rate](#).

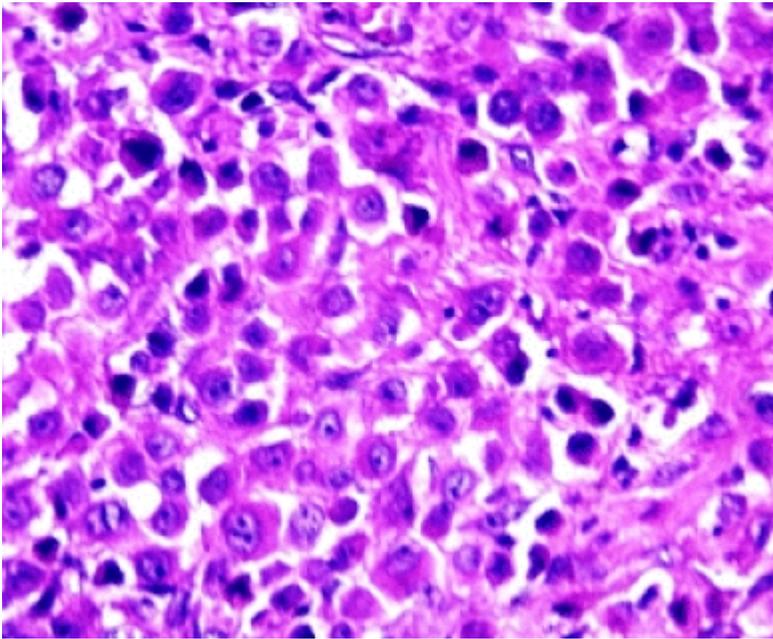
### Subtypes of Epithelioid Mesothelioma

Next



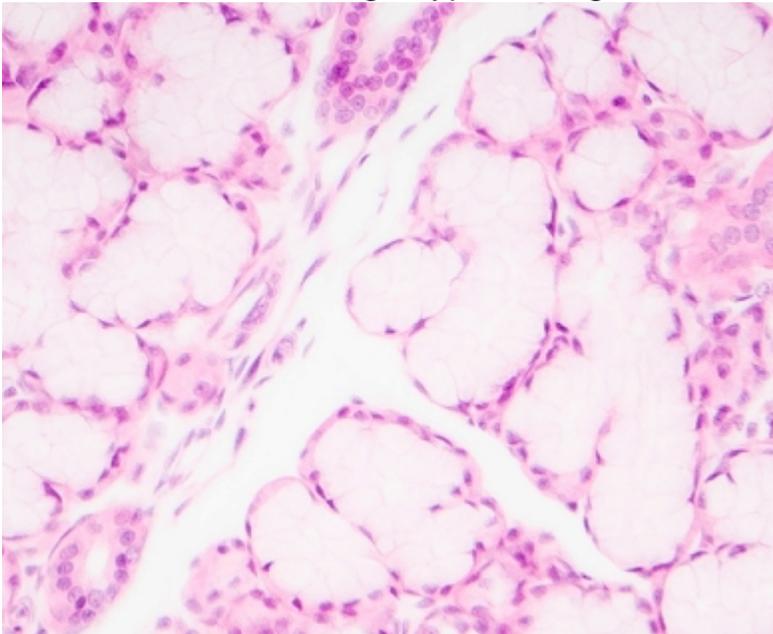
**Adenomatoid**

Also known as the microglandular cell type, this accounts for only 6% of pleural cases. The peritoneal form behaves like benign lesions and responds well to treatment.



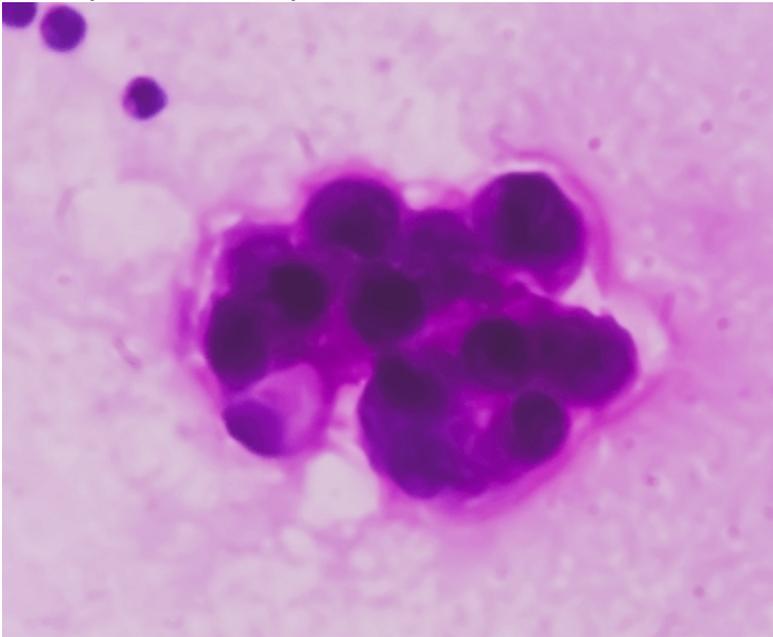
**Deciduoid**

Doctors have diagnosed fewer than 50 cases of this very rare subtype. It most often affects young women. Just more than 50% of deciduoid cases occur in the abdomen, and less than 50% occur in the pleura. It can be mistaken for other cancers, including a type of lung cancer known as squamous cell.



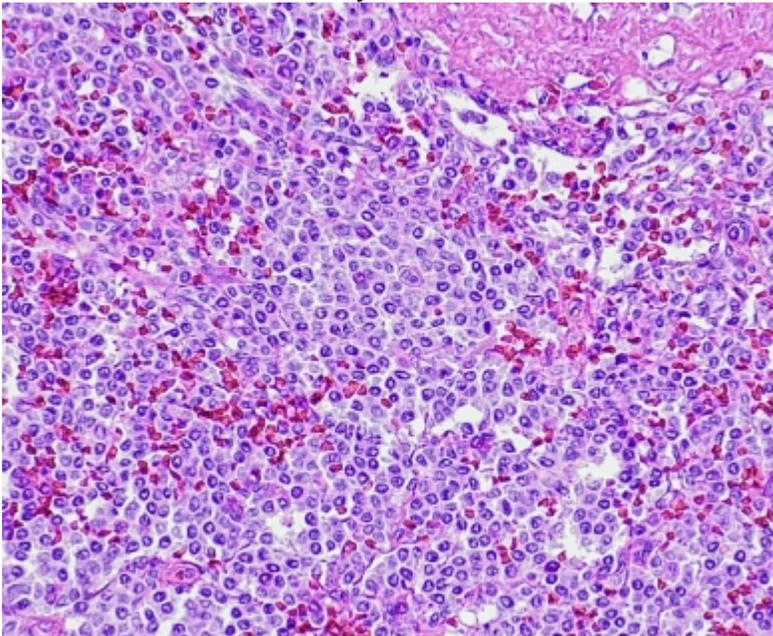
**Glandular**

Glandular tumors often develop in the pleura and have patterns that resemble glands. These cells behave like a type of cancer called adenocarcinoma that has spread to the pleura.



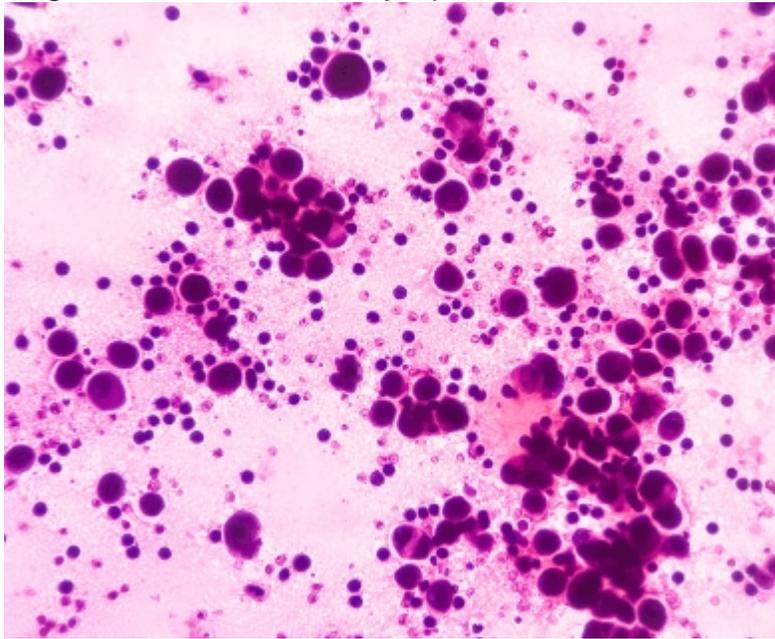
**Small Cell**

Small cell mesothelioma doesn't display the patterns found in small cell lung cancer, which includes stream, ribbon or rosette patterns. This cell type occurs more commonly in the abdomen. The survival rate is around 8 months.



**Solid**

Well-differentiated solid cells group in nests, cords or sheets and look like noncancerous abnormal cell growth. Poorly differentiated cells may look like large cell carcinoma or lymphoma.



**Tubulopapillary**

This common epithelial subtype can look like a type of cancer called adenocarcinoma in the pleura. It's not the same as benign well-differentiated papillary mesothelioma.

“When I speak with a patient who is hesitant to have a biopsy, which is rare, I explain that knowing the cell type is imperative when assessing treatment options,” [Danielle](#) said.

Talk to your [mesothelioma doctor](#) about your cell type, cancer stage and speed of tumor growth (tumor grade). Ask how these factors affect your treatment plan and prognosis.

## **How Is Epithelioid Mesothelioma Treated?**

Doctors often treat epithelioid mesothelioma with a combination of treatments, which is referred to as multimodal therapy. Early-stage cases typically get aggressive treatment with surgery, chemotherapy and radiation therapy. Late-stage cases respond better to [palliative care](#) with immunotherapy, chemotherapy and Tumor Treating Fields therapy.

“The epithelial type does tend to be more favorable,” explains Dr. Wolf. “It does tend to respond to chemotherapy a little more easily.”

### Common Epithelioid Mesothelioma Treatments

- [Chemotherapy](#) can triple the mesothelioma survival rate.
- [Immunotherapy](#) can extend survival to 18 months for many patients.
- [Radiation](#) therapy helps manage symptoms and prevent local recurrence.
- [Surgery](#) extends survival an average of 2 years or 5 years after HIPEC.

Your [treatment](#) will depend on the cancer stage, tumor extent and overall health. Of the 3 cell types, epithelial mesothelioma responds best to treatment.

Consider a second opinion at a [top cancer center](#). The specialists at these centers have the experience to diagnose and treat epithelioid mesothelioma effectively. They can offer [clinical trials](#) and multidisciplinary treatment to control the disease with different therapies.



### **Get a Free Mesothelioma Guide**

Learn about your diagnosis, top doctors and how to pay for treatment.

**[Get Your Free Guide](#)**

## **Epithelial Mesothelioma Prognosis**

The epithelioid [mesothelioma prognosis](#) is better than the outlook for biphasic and sarcomatoid cells. Epithelioid cells respond the best to treatment and don't spread as quickly as the other cell types, which translates into longer survival.

The 5-year survival rate for epithelioid pleural mesothelioma is 12%. A peritoneal mesothelioma study showed a median survival of 55 months for patients with epithelioid cells whereas patients with sarcomatoid or biphasic cells had a median survival of 7 to 13 months.

The survival rate for epithelial patients is overall significantly longer. Epithelial cell type is the best mesothelioma cell type to have. This patient will have more options, such as surgery, and is more likely to respond to treatment.



**Karen Selby**, Patient Advocate and registered nurse

Epithelioid patients live 200 days longer on average than patients with other cell types. The [average life expectancy](#) of epithelial malignant mesothelioma patients is 18 months. The overall survival of all cell types drops when the disease [metastasizes](#) or spreads.

## **Common Questions About Epithelioid Mesothelioma**

### **Where can I get treatment for epithelial cell mesothelioma?**

Look for mesothelioma specialists with years of experience treating pleural and peritoneal mesothelioma. Oncologists need training to treat epithelioid mesothelioma. Our [Patient Advocates](#) can help you find a top doctor who treats epithelial mesothelioma.

### **Can epithelioid mesothelioma be prevented?**

Asbestos exposure is the primary cause of mesothelioma. Avoiding it is the best way to prevent mesothelioma. If you have a history of [asbestos exposure](#), talk to your doctor about cancer screenings, which may aid in an early diagnosis.

### **Is epithelioid mesothelioma curable?**

Unfortunately, epithelioid mesothelioma has no cure. But patients with the epithelioid cell type have the most treatment options. This cell type responds the best to all forms of treatment.

### **Is there any ongoing research on epithelioid mesothelioma?**

Researchers are constantly looking for mesothelioma patients with the epithelioid cell type for clinical trials. They seek out these participants because epithelioid is the disease's most common cell type. Studying epithelioid patients lets researchers learn how a drug or therapy will affect most patients diagnosed with mesothelioma.

### **How can epithelial cells turn into mesothelioma?**

Long-term inflammation can lead to mutations in epithelial cells, eventually giving rise to cancer. When you inhale asbestos fibers, they can become trapped in the lung lining and cause inflammation. Asbestos causes cancerous mutations in epithelial cells over time, leading to mesothelioma tumors decades after the initial exposure.