Mesothelioma - Diagnosis

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Diagnosis

ON THIS PAGE: You will find a list of the common tests, procedures, and scans that doctors can use to find out what?s wrong and identify the cause of the problem. To see other pages in this guide, use the colored boxes on the right side of your screen, or click ?Next? at the bottom.

Doctors use many tests to diagnose cancer and find out if it has metastasized (spread). Some tests may also determine which treatments may be the most effective. For most types of cancer, a biopsy is the only way to make a definitive diagnosis of cancer. If a biopsy is not possible, the doctor may suggest other tests that will help make a diagnosis. Imaging tests may be used to find out whether the cancer has spread. This list describes options for diagnosing this type of cancer, and not all tests listed will be used for every person. Your doctor may consider these factors when choosing a diagnostic test:

- Age and medical condition
- Type of cancer suspected
- Signs and symptoms
- Previous test results

The diagnosis of mesothelioma is challenging, and it can be confused with other diseases, such as lung cancer [2].

Many people first notice symptoms of mesothelioma when they develop fluid in the space around the lungs (called pleural effusion [3]) or in the abdomen (called ascites [4]). When this fluid is removed, it can be analyzed to find out if there are cancer cells in it. However, testing this fluid is usually not the only test needed to diagnose the disease; a biopsy is usually needed to diagnose mesothelioma.

Biopsy [5]**.** A biopsy is the removal of a small amount of tissue for examination under a microscope. Other tests can suggest that cancer is present, but only a biopsy can make a definite diagnosis. The sample removed during the biopsy is analyzed by a pathologist (a doctor who specializes in interpreting laboratory tests and evaluating cells, tissues, and organs to diagnose disease). A biopsy is usually needed to confirm a diagnosis of mesothelioma. Sometimes, a needle can be used to get a sample of the lining. More often the doctor removes a tissue sample by using a thin, lighted tube inserted through a small incision in the body. This is called a video thoracoscopy when used to get samples from inside the chest or a laparoscopy when used to get tissue samples from inside the abdomen.

The following procedures may be used to help develop a treatment plan:

Physical examination. A physical examination may include a medical history of the person and his or her family's past illnesses, a list of their risk factors (including asbestos exposure), and an examination for other signs of cancer.

Lung function tests. Also called pulmonary function tests or PFTs, lung function tests evaluate how much air the lungs can hold, how quickly air can move in and out of the lungs, and how well the lungs add oxygen and remove carbon dioxide from the blood.

X-ray. An x-ray is a way to create a picture of the structures inside of the body using a small amount of radiation. An x-ray of the chest can sometimes help doctors determine whether a person has mesothelioma and where it is located, but it is not the main way to diagnose mesothelioma.

Computed tomography (CT or CAT) scan [6]**.** A CT scan creates a three-dimensional picture of the inside of the body with an x-ray machine. A computer then puts these images into a detailed, cross-sectional view that shows abnormalities or tumors. A CT scan can also be used to measure the tumor?s size. Sometimes, a contrast medium (a special dye) is injected into a patient?s vein or given orally (by mouth) to provide better detail.

Magnetic resonance imaging (MRI) [7]**.** An MRI uses magnetic fields, not x-rays, to produce detailed images of the body. A contrast medium may be injected into a patient?s vein or given orally to create a clearer picture.

Positron emission tomography (PET) scan [8]**.** A PET scan is a way to create pictures of organs and tissues inside the body. A small amount of a radioactive substance is injected into a patient?s body. This substance is absorbed mainly by organs and tissues that use the most energy. Because cancer tends to use energy actively, it absorbs more of the radioactive substance. A scanner then detects this substance to produce images of the inside of the body.

After these diagnostic tests are done, your doctor will review all of the results with you. If the diagnosis is cancer, these results also help the doctor describe the cancer; this is called staging.

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