Sarcoma - 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, use the menu on the side of your screen.

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, including sarcoma, 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 metastasized. Your doctor may consider these factors when choosing a diagnostic test:

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

There are no standard screening tests for sarcoma. A doctor should examine any unusual or new lumps or bumps that are growing to make sure it is not cancer. Sarcoma is rare. This makes it important to talk with a doctor who has experience with this type of cancer if sarcoma is suspected.

A diagnosis of sarcoma is made by a combination of clinical examination by a doctor and imaging tests. It is confirmed by the results of a biopsy. In addition to a physical examination, the following tests may be used to diagnose sarcoma:

Imaging tests

A benign and a cancerous tumor may look different on imaging tests, such as an x-ray. In general, a benign tumor has round, smooth, well-defined borders. A cancerous tumor has irregular, poorly defined edges.

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. Typically, if an x-ray suggests cancer, the doctor will order other imaging tests. X-ray is particularly useful for bone sarcomas [2].

Ultrasound [3]**.** An ultrasound uses sound waves to create a picture of the internal organs.

Computed tomography (CT or CAT) scan [4]**.** A CT scan creates a three-dimensional picture of the inside of the body with an x-ray machine. A computer then combines these images into a detailed, cross-sectional view that shows any abnormalities or tumors. Sometimes, a contrast medium (a special dye) is injected into a patient?s vein to provide better detail.

Magnetic resonance imaging (MRI) [5]**.** 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 to create a clearer picture. MRI scans are useful to check for a tumor in soft tissues.

Positron emission tomography (PET) scan [6]**.** 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 tumor inside of the body.

Integrated PET-CT scan [7]**.** This scanning method collects images from both a CT and PET scan at the same time, and then combines the images. This technique can be used to look at both the structure and how much energy is used by the tumor and normal tissues. This information can be helpful in treatment planning and evaluating how well treatment is working.

Imaging tests may suggest the diagnosis of sarcoma, but a biopsy will always be performed to confirm the diagnosis and find out the subtype. It is very important for a patient to see a sarcoma specialist before any surgery or biopsy is done.

Biopsy [8]**.** 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 from the biopsy is analyzed by a pathologist.

There are different types of biopsies. For a needle biopsy (usually a core needle biopsy, less often a thin needle biopsy), a doctor removes a small sample of tissue from the tumor with a needle-like instrument. This may be performed with the help of ultrasound, CT scan, or MRI to precisely find the tumor. In an incisional biopsy, the surgeon cuts into the tumor and removes a sample of tissue. In an excisional biopsy, the surgeon removes the entire tumor. Because these tumors are uncommon, it is important that the sample of tissue removed is reviewed by an expert pathologist to appropriately diagnose a sarcoma.

Molecular testing of the tumor. Your doctor may recommend running laboratory tests on a tumor sample to identify specific genes, proteins, and other factors unique to the tumor. Results of these tests will help decide whether your treatment options include a type of treatment called targeted therapy (see Treatment [9]).

Learn more about what to expect when having common tests, procedures, and scans [10].

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 [11]. Learn more about the first steps to take after a diagnosis of cancer [12].

The next section helps explain the different stages for this type of cancer. Use the menu on the side of your screen to select Stages, or you can select another section, to continue reading this guide.

Links:
[1] http://www.cancer.net/about-us
[2] http://www.cancer.net/node/18534
[3] http://www.cancer.net/node/24714
[4] http://www.cancer.net/node/24486
[5] http://www.cancer.net/node/24578
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