

Soft Tissue Sarcoma: Diagnosis



If your healthcare provider thinks you might have a soft tissue sarcoma, you'll need certain exams and tests to be sure. Diagnosing sarcoma starts with your healthcare provider asking you questions. You'll be asked about your health history, symptoms, risk factors, and your family's medical history. Your healthcare provider will also do a physical exam.

What tests might I need?

You may have one or more of these tests:

- Imaging tests
- Biopsy

Imaging tests

If you have a lump (tumor) or other symptoms that might be caused by a soft tissue sarcoma, your healthcare provider may do imaging tests. The type of test done often depends on where the lump is. You may get one or more of these tests:

- **X-rays.** An X-ray of the lump is often the first test done. It uses low-dose radiation to take a picture.
- **Ultrasound.** This test can sometimes show if a lump is a cyst (a fluid-filled sac that's probably not cancer) or a solid mass that's more likely to be a benign tumor or cancer. An ultrasound uses high-energy sound waves to look for tissue changes. The sound waves come from a wand that's moved over your skin around the area with the tumor. They bounce off body parts and send back a series of signals. A computer turns these signals into images of the inside of your body.
- **MRI.** This test uses strong magnets and radio waves (not X-rays) to take detailed pictures of the inside of your body. An MRI scan can show details about the lump, such as its size, the kind of tissue it started in, and whether it has spread to nearby tissues. Before the MRI, you may be given a contrast material in your vein. The contrast is used to improve the detail of the pictures.
- **CT scan.** A CT scan uses a computer to make a picture of X-rays taken from many angles to make very detailed cross-section pictures of the lump and other structures in your body. Like MRI, it can be used to learn details about the lump. Contrast material may be given in your vein or as a liquid you swallow to improve the detail of the pictures. A CT scan might be used to help guide the needle for a biopsy. (See below.)
- **PET or PET-CT.** For this test, a small amount of radioactive sugar is put right into your blood through a vein. Cancer cells take up more of the sugar than normal cells. This can then be detected with a special camera. This test isn't always needed for sarcomas. And when it's done, it's usually combined with a CT scan (PET-CT).

Biopsy

If imaging tests suggest you might have a soft tissue sarcoma, tiny pieces of the tumor (called samples) will be taken and examined in a lab. This is called a biopsy. Biopsies for suspected sarcomas must be done by healthcare providers with experience treating these tumors. If not done correctly, a biopsy can lead to the tumor spreading, as well as problems after taking it out later. The type of biopsy done depends on where the tumor is and how big it is.

Some ways to get a biopsy include:

- **Core needle biopsy.** For this test, a healthcare provider puts a hollow needle through your skin and into the tumor. A sample of the tumor is then taken out through the needle. If the tumor is deep in your

body, the biopsy is often done using a CT scan or ultrasound. This lets your healthcare provider see the needle going into the tumor. This type of biopsy is usually preferred for soft tissue sarcomas.

- **Surgical biopsy.** You may have a biopsy during surgery. If the tumor is small and easy to reach, the whole tumor might be taken out. This is called an **excisional biopsy**. If the tumor is big or the whole thing can't be removed, only a small piece of it might be taken out for testing. This is called an **incisional biopsy**.

A healthcare provider who specializes in looking at abnormal cells, called a pathologist, then looks at the samples under a microscope and runs tests on them. They will find out whether it's cancer. If it is, other lab tests are done to find out exactly what type of cancer it is and how fast it's growing. They may check for specific genes or proteins. This information is used to choose the best treatment.

Getting your test results

When your healthcare provider has the results of your tests, they will contact you. Your healthcare provider will talk with you about other tests you may need if soft tissue sarcoma is found. Make sure you understand the results and what follow-up you need.

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