

# Soft Tissue Sarcoma: Types, Symptoms, Diagnosis and Treatment

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## DESCRIPTION

Soft tissue sarcoma is a rare type of cancer that begins in the tissues that connect, support and surround other body structures. This includes muscle, fat, blood vessels, nerves, tendons and the lining of your joints.

More than 50 subtypes of soft tissue sarcoma exist. Some types are more likely to affect children, while others affect mostly adults. Diagnosis of these tumors can be difficult because they may be mistaken for many other types of growths.

Soft tissue sarcoma can occur anywhere in your body, but the most common types occur in the arms and legs, and in the abdomen. Surgical removal is the most common treatment, although radiation and chemotherapy also may be recommended – depending on the size, type, location and aggressiveness of the tumor.

Types of soft tissue sarcoma include-

- Angiosarcoma
- Dermatofibrosarcoma protuberans
- Epithelioid sarcoma
- Gastrointestinal stromal tumor (GIST)
- Kaposi's sarcoma
- Leiomyosarcoma
- Liposarcoma
- Malignant peripheral nerve sheath tumors
- Myxofibrosarcoma
- Rhabdomyosarcoma
- Solitary fibrous tumor
- Synovial sarcoma
- Undifferentiated pleomorphic sarcoma

Symptoms include-

A soft tissue sarcoma may not cause any signs and symptoms in its early stages. As the tumor grows, it may cause:

- A noticeable lump or swelling

- Pain, if a tumor presses on nerves or muscles

Causes of soft tissue sarcoma include

In most cases, it's not clear what causes soft tissue sarcoma.

In general, cancer occurs when cells develop errors (mutations) in their DNA. The errors make cells grow and divide out of control. The accumulating abnormal cells form a tumor that can grow to invade nearby structures and the abnormal cells can spread to other parts of the body.

Diagnosis of soft tissue sarcoma includes-

Because there are so many different types of soft tissue sarcoma, it's important to determine the exact nature of each tumor so that the best treatments can be chosen.

Imaging tests- To evaluate the area of concern, your doctor might employ:

- X-rays
- Computerized tomography scans
- Magnetic resonance imaging
- Positron emission tomography

## Biopsy

If a soft tissue sarcoma is suspected, it's often best to seek care at a medical center that sees many people with this type of cancer. Experienced doctors will select the best biopsy technique to ensure proper surgical treatment and planning. Options include:

- **Core needle biopsy:** Tiny tubes of tumor material can be obtained by this method. Doctors typically try to take samples from several sections of the tumor.
- **Surgical biopsy:** In some cases, your doctor might suggest surgery to obtain a larger sample of tissue or to simply remove a small tumor entirely.

Treatment includes-

## Surgery

Surgery is a common treatment for soft tissue sarcoma. Surgery generally involves removing the cancer and some healthy tissue

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surrounding it.

When soft tissue sarcoma affects the arms and legs, radiation and chemotherapy may be considered to shrink the tumor to avoid amputation.

#### **Radiation therapy**

Radiation therapy involves treating cancer with high-powered beams of energy. Options include:

- **Before surgery:** Radiation before surgery can help shrink the tumor so that it's easier to remove.
- **During surgery:** Intraoperative radiation allows a higher dose of radiation to be delivered directly to the target area, while sparing surrounding tissues.
- **After surgery:** Postoperative radiation can help kill any remaining

cancer cells.

#### **Chemotherapy**

Chemotherapy is a drug treatment that uses chemicals to kill cancer cells. Chemotherapy can be administered by pill or through a vein (intravenously). Some forms of soft tissue sarcoma respond better to chemotherapy than do others. For instance, chemotherapy is often used to treat rhabdomyosarcoma.

#### **Targeted drug treatment**

Some types of soft tissue sarcoma have specific characteristics in their cells that can be attacked *via* targeted drug treatments. These medicines work better than chemotherapy and aren't nearly as toxic. Targeted treatments have been particularly helpful in gastrointestinal stromal tumors (GISTs).