CONDITION

Uterine sarcoma

Uterine sarcoma is a cancer that begins in the muscle or supporting tissues of the uterus.

WHAT IT IS
Cancer of the uterine muscle or supporting tissues

BODY SYSTEM
Female reproductive system

MAIN SYMPTOMS
Abnormal vaginal bleeding, pelvic pain, pressure, abdominal swelling

WHAT CAUSES IT
Usually unknown; DNA changes drive abnormal cell growth

HOW IT IS DIAGNOSED
Tissue examination by a specialist pathologist

MAIN TREATMENT
Surgery, sometimes followed by radiation or drug treatment

CAN IT BE CURED?
Sometimes - localized tumors may be removed completely

IS IT AN EMERGENCY?
Sometimes - heavy bleeding with fainting or breathing trouble

LONG-TERM OUTLOOK
Best when localized; recurrence can occur years later

Overview

Uterine sarcoma is a cancer that starts in the muscle or supporting tissues of the uterus. The uterus, also called the womb, is the organ where a pregnancy can develop.

This is different from the more common endometrial cancers, which begin in the inner lining of the uterus. It is also different from a uterine fibroid, which is a noncancerous growth of muscle tissue.

There are several types of uterine sarcoma:

Uterine carcinosarcoma was once grouped with sarcomas. It is now generally classified as a high-grade endometrial carcinoma and treated differently.

The exact type matters because uterine sarcomas do not all behave in the same way. Some grow slowly and respond to hormones. Others are more likely to grow quickly or spread

through the bloodstream. A careful pathology review helps guide treatment and follow-up.

- Leiomyosarcoma begins in the smooth muscle of the uterus.
- Endometrial stromal sarcoma begins in tissue that supports the uterine lining. It may be low-grade or high-grade, based on how abnormal and fast-growing the cells appear.
- Adenosarcoma contains both gland-like tissue and cancerous supporting tissue.
- Undifferentiated uterine sarcoma has cells that do not closely resemble normal uterine tissue.

Symptoms

Abnormal vaginal bleeding is the most common reason people seek care. This can include bleeding after menopause, bleeding between periods, or periods that become unusually heavy or prolonged.

Other possible symptoms include:

These symptoms are often caused by conditions other than cancer. Fibroids, hormonal changes, polyps, and other uterine conditions can cause similar problems.

A rapidly enlarging uterus or presumed fibroid may lead to further testing, especially after menopause. However, growth speed alone cannot confirm or rule out uterine sarcoma.

- Persistent pain, pressure, or a feeling of fullness in the pelvis
- A growing lump or swelling in the lower abdomen
- Needing to urinate more often because the uterus presses on the bladder
- Constipation or bowel pressure
- Tiredness, weakness, or shortness of breath caused by anemia from blood loss

Causes and risk factors

Uterine sarcoma develops when cells in uterine muscle or supporting tissue acquire DNA changes that allow them to grow out of control. In most people, it is not clear why these changes happen.

Factors linked with a higher risk include previous radiation treatment to the pelvis and previous use of tamoxifen, a medicine used for some breast cancers. These treatments have important benefits, and most people who receive them do not develop uterine sarcoma. Do not stop prescribed treatment because of this possible risk; discuss concerns with the team

responsible for your care.

A small number of uterine sarcomas may be associated with inherited cancer conditions. Examples include hereditary retinoblastoma and hereditary leiomyomatosis and renal cell cancer syndrome. A genetics assessment may be suggested if your personal or family history points to an inherited cause.

Having uterine fibroids does not usually mean that you will develop sarcoma. Most uterine leiomyosarcomas are thought to arise independently rather than from an existing fibroid.

Diagnosis

There is no single scan that can reliably distinguish every uterine sarcoma from a fibroid. Diagnosis may therefore take several steps.

An examination may identify an enlarged uterus or pelvic mass. An ultrasound can show the size and location of a growth. MRI may provide more detail about the uterus and nearby tissues.

A sample from the uterine lining may be collected by endometrial biopsy or hysteroscopy, in which a thin camera is passed through the cervix. These tests can find some sarcomas, but they may miss a tumor that is mainly within the uterine muscle.

For this reason, uterine sarcoma is sometimes diagnosed only after surgery for what was believed to be a fibroid. The diagnosis is confirmed when a pathologist examines the removed tissue under a microscope. Review by a pathologist experienced in gynecologic sarcomas can be particularly important because the subtypes may be difficult to separate.

Further testing can include checks for hormone receptors, gene changes, or specific proteins in the tumor. These results can clarify the subtype and may help identify treatment options.

CT, MRI, or other imaging may then be used to establish the stage. The stage describes whether the cancer is limited to the uterus or has spread to nearby structures, lymph nodes, the lungs, or other organs.

Treatment and management

Treatment is planned around the sarcoma subtype, stage, tumor grade, test results, previous treatment, and your general health. Care is often coordinated by a gynecologic cancer or sarcoma specialist team.

For a sarcoma limited to the uterus, the main treatment is usually surgery to remove the

uterus, called a total hysterectomy. The tumor is removed intact when possible. Breaking uterine tissue into small pieces, known as morcellation, can spread an unsuspected sarcoma within the abdomen.

Whether the ovaries and fallopian tubes are also removed is an individual decision. It can be affected by age, menopausal status, sarcoma subtype, hormone-receptor results, and how far the cancer has spread. Lymph nodes may be removed if they look abnormal, but routine removal is not needed for every subtype.

Additional treatment after surgery is called adjuvant treatment. Its role differs among uterine sarcomas:

After complete removal of some localized sarcomas, close observation may be recommended instead of immediate additional treatment. This does not mean that care has stopped. It means treatment has been balanced against uncertain benefit and possible side effects.

If the cancer has spread or returned, treatment may include systemic therapy, meaning medicine that travels through the body. Surgery or radiation can sometimes treat a limited area causing symptoms or a small number of metastases. Clinical trials may provide access to newer approaches.

- Radiation therapy may reduce the chance of cancer returning in the pelvis in selected situations. It has not been shown to benefit every person with uterine sarcoma.
- Chemotherapy may be considered for some higher-risk, high-grade, advanced, or recurrent tumors.
- Hormone therapy may be used for hormone-sensitive tumors, particularly low-grade endometrial stromal sarcoma.
- Targeted treatment may be available when tumor testing identifies a change that a specific medicine can act on.

Complications

Uterine sarcoma can cause ongoing bleeding and anemia. A larger tumor may press on the bladder, bowel, ureters, nerves, or blood vessels.

Cancer cells can also spread beyond the uterus. Leiomyosarcoma commonly spreads through the bloodstream, including to the lungs. Other possible sites include the abdomen, liver, bones, and lymph nodes. Patterns differ by subtype.

Recurrence means that cancer has returned after treatment. It may occur in the pelvis or elsewhere in the body. Some slow-growing stromal sarcomas can return many years after the

original diagnosis, which is why long-term follow-up may be appropriate.

Treatment can have lasting effects. Hysterectomy ends the ability to carry a pregnancy. Removing both ovaries before natural menopause causes surgical menopause, which can bring hot flushes, sleep problems, vaginal dryness, and bone-health concerns. Chemotherapy and radiation can also affect energy, digestion, sexual wellbeing, and emotional health.

Prevention

There is no established way to prevent most uterine sarcomas. They usually arise without a clear, avoidable cause.

Routine screening is not available for people without symptoms. Cervical screening, including a Pap test, checks the cervix and does not screen for uterine sarcoma.

If you have had pelvic radiation or taken tamoxifen, report new abnormal bleeding rather than stopping treatment on your own. If an inherited cancer condition is suspected, genetic counselling can explain testing and what the results may mean for you and your relatives.

Living with it and what to expect

What happens over months and years is strongly influenced by the sarcoma subtype, stage, grade, and response to treatment. A sarcoma removed while limited to the uterus may be curable. Higher-grade cancers or cancers that have spread are more difficult to cure, but treatment may shrink them, slow their growth, or relieve symptoms.

Follow-up usually includes discussion of symptoms and a physical examination. Imaging may be arranged according to the subtype, stage, previous treatment, and local follow-up plan. Visits are often closer together at first and become less frequent over time. Some people need long-term monitoring because late recurrence is possible.

Tell your follow-up team about new bleeding, persistent pain, abdominal swelling, an unexplained cough, breathlessness, or a new lump. These symptoms do not automatically mean the cancer has returned, but they should be assessed.

Recovery after treatment can include changes in energy, fertility, menopause symptoms, body image, relationships, and sexual health. Support from rehabilitation services, menopause specialists, mental health professionals, cancer support groups, or fertility services may help with specific concerns.

Some people complete treatment and return to usual activities with ongoing surveillance.

Others have repeated periods of treatment and recovery. Advanced uterine sarcoma may sometimes be managed over time as a continuing illness, although its course cannot be predicted for one person.

When to get medical help

Arrange a routine medical appointment if you develop:

If you have already been treated for uterine sarcoma, contact your cancer team about new or persistent symptoms rather than waiting for the next routine visit.

Seek urgent medical advice if bleeding becomes much heavier than usual, you feel dizzy or weak, or pain becomes severe. During cancer treatment, follow the urgent-contact instructions provided by your treatment team, especially for fever or signs of infection.

Call emergency services for very heavy bleeding with fainting, severe breathing difficulty, chest pain, confusion, or difficulty staying awake.

- Any vaginal bleeding after menopause
- Bleeding between periods or a persistent change in your periods
- Ongoing pelvic pain, pressure, or abdominal swelling
- A pelvic lump or symptoms that are getting worse

Common questions

Is uterine sarcoma the same as a fibroid?

No. A fibroid is a common noncancerous growth, while uterine sarcoma is cancer. They can look similar on scans, so the final diagnosis may require examination of removed tissue.

Can a fibroid turn into uterine sarcoma?

This is thought to be uncommon. Most leiomyosarcomas appear to develop independently rather than from an existing fibroid. A change in a presumed fibroid still deserves assessment, particularly after menopause.

Can an ultrasound show whether a uterine mass is cancer?

Ultrasound can show a mass and measure it, but it cannot reliably confirm uterine sarcoma. MRI may provide more information, but tissue examination is needed for a definite diagnosis.

Is a hysterectomy enough to cure uterine sarcoma?

It can be enough for some localized tumors removed completely. The chance of cure also depends on the subtype, grade, stage, and whether cancer cells have spread beyond the uterus.

Where does uterine sarcoma spread?

It can spread within the pelvis or abdomen and through the bloodstream. The lungs are an important site of spread, especially for leiomyosarcoma, but spread can occur elsewhere.

Will a Pap test find uterine sarcoma?

Usually not. A Pap test collects cells from the cervix and is designed mainly to screen for cervical cell changes. It does not screen for cancer arising in the uterine muscle.

Sources

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