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Uterine Sarcoma Early Detection, Diagnosis, and Staging

Detection and Diagnosis

Catching cancer early often allows for more treatment options. Some early cancers may have signs and symptoms that can be noticed, but that is not always the case.

- [Can Uterine Sarcoma Be Found Early?](#)
- [Signs and Symptoms of Uterine Sarcomas](#)
- [How Is Uterine Sarcoma Diagnosed?](#)

Stages and Outlook (Prognosis)

After a cancer diagnosis, staging provides important information about the extent of cancer in the body and anticipated response to treatment.

- [Uterine Sarcoma Stages](#)
- [Survival Rates for Uterine Sarcoma](#)

Questions to Ask About Uterine Sarcoma

Here are some questions you can ask your cancer care team to help you better understand your cancer diagnosis and treatment options.

- [What Should You Ask Your Doctor About Uterine Sarcoma?](#)
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Can Uterine Sarcoma Be Found Early?

In some cases, knowing the [signs and symptoms](#) of uterine sarcoma and seeing a health care professional right away can help find it at an early stage (when it's small and hasn't spread). But many uterine sarcomas reach an advanced stage before signs and symptoms are present. The signs and symptoms for the main types of uterine sarcoma are different. (See [How Is Uterine Sarcoma Diagnosed?](#))

Screening tests

Screening refers to testing to find a disease such as cancer in people who don't have symptoms of the disease. At this time, there are no tests or exams to detect uterine sarcomas in women without symptoms (asymptomatic women). Screening tests used for cervical cancer, such as a Pap test or HPV (human papillomavirus) test aren't effective tests for uterine sarcomas. The Pap test, which screens for cervical cancer, can sometimes find early uterine sarcomas, but it's not a good test for this type of cancer.

Still, the Pap test is very good at finding early carcinomas of the cervix (the lower part of the uterus). For information on finding cervical cancer early, see [Cervical Cancer Screening Guidelines](#)¹.

Hyperlinks

1. www.cancer.org/cancer/cervical-cancer/detection-diagnosis-staging/cervical-cancer-screening-guidelines.html

References

See all references for Uterine Sarcoma (www.cancer.org/cancer/uterine-sarcoma/references.html)

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Signs and Symptoms of Uterine Sarcomas

In most cases, the possibility of uterine sarcoma is suggested by certain symptoms. These symptoms don't always mean that a woman has uterine sarcoma. In fact, they are more often caused by something else, such as non-cancerous changes in the uterus (like fibroids), pre-cancerous overgrowth of the endometrium, or [endometrial carcinoma](#)¹. Still, if you're having these problems, see a doctor to find the cause and get any needed treatment.

Abnormal bleeding or spotting

About 85% of patients diagnosed with uterine sarcomas have irregular vaginal bleeding (between periods) or bleeding after menopause. This symptom is more often caused by something other than cancer, but it's important to have any irregular bleeding checked right away.

If you've gone through menopause, any vaginal bleeding or spotting is abnormal, and it should be reported to your health care professional right away.

Vaginal discharge

About 10% of women with uterine sarcomas have a vaginal discharge that does not have any visible blood. A discharge is most often a sign of infection or another non-cancer condition, but it also can be a sign of cancer. Any abnormal discharge should be checked by a health care professional.

Pelvic pain and/or a mass

When they're first diagnosed, about 10% of women with uterine sarcomas have pelvic pain and/or a mass (tumor) that can be felt. You or your doctor may be able to feel the mass in your uterus, or you might have a feeling of fullness in your belly and/or pelvis.

Hyperlinks

1. www.cancer.org/cancer/endometrial-cancer.html

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See all references for Uterine Sarcoma (www.cancer.org/cancer/uterine-sarcoma/references.html)

Benson C, Miah AB. Uterine sarcoma -- current perspectives. *Int J Womens Health*. 2017;9:597-606.

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Potikul C, Tangjitgamol S, Khunnarong J, et al. Uterine Sarcoma: Clinical Presentation, Treatment and Survival Outcomes in Thailand. *Asian Pac J Cancer Prev*. 2016;17(4):1759-1767.

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How Is Uterine Sarcoma Diagnosed?

Many uterine sarcomas are diagnosed during or after surgery for what's thought to be benign fibroid tumors.

Some are diagnosed because of symptoms. If you have symptoms of uterine cancer, the first step is to see your doctor.

Consultation, medical history, and physical exam

Your doctor will ask you about your personal and family medical history, examine you, and might order some tests. You also will be asked about any symptoms, risk factors, and other health problems. A general physical and a pelvic exam will be done. An ultrasound may be used to look at the inside of your uterus.

If your doctor suspects cancer, you may be referred to a gynecologist or a doctor specializing in cancers of the female reproductive system (called a gynecologic oncologist).

Sampling and testing endometrial tissue

To find the cause of abnormal uterine bleeding, a small piece of tissue (a sample) will be taken from the lining of the uterus and looked at with a microscope. The tissue can be removed by endometrial biopsy or by dilation and curettage (D&C). Often a hysteroscopy is done with the D&C.

These procedures let the doctor see if the bleeding is caused by an endometrial overgrowth that's not cancer (hyperplasia), [endometrial carcinoma](#)¹, uterine sarcoma, or some other problem. The tests will find many endometrial stromal sarcomas and undifferentiated sarcomas, but less than half of leiomyosarcomas (abbreviated LMSs). These tests don't find all LMSs because these cancers start in the muscle layer of the wall of the uterus. To be found by an endometrial biopsy or D&C, they need to have spread from the middle (muscle) layer to the inner lining of the uterus. In most cases, the only way to diagnose a LMS is by removing it with surgery.

Endometrial biopsy

In this procedure, a very thin, flexible tube is put into the uterus through the cervix. Then, using suction, a small amount of the uterine lining (endometrium) is taken out through the tube. Suctioning takes about a minute or less. The discomfort is a lot like severe menstrual cramps and can be helped by taking a nonsteroidal anti-inflammatory drug like ibuprofen an hour before the biopsy. This procedure is usually done in the doctor's office.

Hysteroscopy

This procedure allows doctors to look inside the uterus. A tiny telescope is put into the uterus through the cervix. To get a better view, the uterus is then expanded by filling it with salt water (saline). This lets the doctor see and take out anything abnormal, such as a cancer or a polyp. This procedure is usually done with the patient awake, using local anesthesia (numbing medicine). But if a polyp or mass has to be removed, general or regional anesthesia is sometimes used. (General anesthesia means you are given drugs that put you into a deep sleep and keep you from feeling pain. Regional anesthesia is a nerve block that numbs a larger area of the body).

Dilation and curettage

If the results of the endometrial biopsy are not clear (meaning they can't tell for sure if cancer is present), a procedure called **dilation and curettage (D&C)** must be done. A D&C is usually done in the outpatient surgery area of a clinic or hospital. It's done while

the woman is under general or regional anesthesia or conscious sedation (medicine is given into a vein to make her drowsy). It takes about an hour. In a D&C, the cervix is dilated (opened) and a special surgical tool is used to scrape the endometrial tissue from inside the uterus. A hysteroscopy may be done as well. Some women have mild to moderate cramping and discomfort after this procedure.

Testing endometrial tissue

Any tissue samples taken out are looked at under a microscope to see if cancer is present. If cancer is found, the lab report will say if it's a carcinoma or sarcoma, what [type](#)² it is, and its grade.

A tumor's grade is based on how much it looks like normal tissue under the microscope. If the tumor looks a lot like normal tissue, it's called low grade. If it doesn't at all look like normal tissue, it's high grade. The rate at which the cancer cells appear to be growing is another important factor in grading a uterine sarcoma. High-grade sarcomas tend to grow and spread faster than low-grade sarcomas.

The tissue may also be tested to see if the cancer cells have [estrogen receptors and progesterone receptors](#)³. These hormone receptors are found on many endometrial stromal sarcomas. Cancers with estrogen receptors on the cells are more likely to grow in response to estrogen, while those with progesterone receptors often have their growth decreased by progesterone. These cancers may stop growing (or even shrink) when treated with certain hormone drugs. Checking for these receptors helps predict which patients will benefit from treatment with [these drugs](#)⁴.

Cystoscopy and proctoscopy

If a woman has signs or symptoms that suggest uterine sarcoma has spread to the bladder or rectum, the inside of these organs can be looked at through a lighted tube. These exams are called **cystoscopy** and **proctoscopy**, respectively. They are rarely done in the diagnosis and work-up of patients with uterine sarcoma.

Imaging tests

Transvaginal ultrasound

[Ultrasound](#)⁵ tests use sound waves to take pictures of parts of the body. For a transvaginal ultrasound, a probe that gives off sound waves is put into the vagina. The sound waves are used to create images of the uterus and other pelvic organs. These images can often show if there's a tumor and if it affects the myometrium (muscular

layer of the uterus).

For an ultrahysterosonogram or saline infusion sonogram, salt water (saline) is put into the uterus through a small tube before the transvaginal sonogram. This allows the doctor to see changes in the uterine lining more clearly.

Computed tomography

The [CT scan](#)⁶ is an x-ray test that produces detailed cross-sectional images of your body. Instead of taking one picture, like a standard x-ray, a CT scanner takes many pictures as it rotates around you. A computer then combines these pictures into an image of a slice of your body.

CT scans are rarely used to diagnose uterine cancer, but they may be helpful in seeing if the cancer has spread to other organs.

CT-guided needle biopsy: CT scans can also be used to guide a biopsy needle precisely into a suspected tumor. For this procedure, the patient remains on the CT scanning table while the doctor moves a biopsy needle through the skin and toward the tumor. CT scans are repeated until the needle is within the tumor. A fine needle biopsy sample or a larger core needle biopsy sample is then removed to be looked at with a microscope. This isn't done to biopsy tumors in the uterus, but might be used to biopsy areas that look like metastasis (cancer spread).

Magnetic resonance imaging

[MRI scans](#)⁷ use radio waves and strong magnets instead of x-rays. The energy from the radio waves is absorbed and then released in a pattern formed by the type of tissue and by certain diseases. A computer translates the pattern of radio waves given off by the tissues into a very detailed image of parts of the body. MRI scans can help tell if a uterine tumor looks like cancer, but a biopsy is still needed to tell for sure.

MRI scans are also very helpful in looking for cancer that has spread to the brain and spinal cord.

Positron emission tomography scan

In a [PET scan](#)⁸, radioactive glucose (sugar) is injected into the patient's vein. Because many cancers use glucose much faster than normal tissues, the radioactivity tends to collect in the cancer. A scanner can then spot the radioactive deposits. This test can be helpful for spotting small collections of cancer cells that have spread beyond the uterus

(metastasized).

Chest x-ray

A regular (plain) [x-ray](#)⁹ of the chest may be done to see if a uterine sarcoma has spread to the lungs and as part of the testing before surgery.

Hyperlinks

1. www.cancer.org/cancer/endometrial-cancer.html
2. www.cancer.org/cancer/uterine-sarcoma/about/what-is-uterine-sarcoma.html
3. www.cancer.org/cancer/breast-cancer/understanding-a-breast-cancer-diagnosis/breast-cancer-hormone-receptor-status.html
4. www.cancer.org/cancer/uterine-sarcoma/treating/hormone-therapy.html
5. www.cancer.org/treatment/understanding-your-diagnosis/tests/ultrasound-for-cancer.html
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8. www.cancer.org/treatment/understanding-your-diagnosis/tests/nuclear-medicine-scans-for-cancer.html
9. www.cancer.org/treatment/understanding-your-diagnosis/tests/x-rays-and-other-radiographic-tests.html

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See all references for Uterine Sarcoma (www.cancer.org/cancer/uterine-sarcoma/references.html)

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Treatment and Survival Outcomes in Thailand. *Asian Pac J Cancer Prev*. 2016;17(4):1759-1767.

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Uterine Sarcoma Stages

After a woman is diagnosed with uterine sarcoma, doctors will try to figure out if it has spread, and if so, how far. This process is called *staging*. The stage of a cancer describes the amount of cancer in the body. It helps determine how serious the cancer is and [how best to treat it](#)¹. Doctors also use a cancer's stage when talking about survival statistics.

Uterine sarcoma stages range from stage I (1) through IV (4). As a rule, the lower the number, the less the cancer has spread. A higher number, such as stage IV, means cancer has spread more. And within a stage, an earlier letter means a lower stage. Although each person's cancer experience is unique, cancers with similar stages tend to have a similar outlook and are often treated in much the same way.

How is the stage determined?

The 2 systems used for staging uterine sarcoma, the **FIGO (International Federation of Gynecology and Obstetrics) system** and the **American Joint Committee on Cancer TNM staging system** are basically the same.

They both stage (classify) this cancer based on 3 factors:

- The extent (size) of the **tumor (T)**: How large is the cancer? Has the cancer grown out of the uterus into the pelvis or organs such as the bladder or rectum?
- The spread to nearby **lymph nodes (N)**: Has the cancer spread to nearby lymph nodes?
- The spread (**metastasis**) to distant sites (**M**): Has the cancer spread to distant lymph nodes or organs?

Numbers or letters after T, N, and M provide more details about each of these factors. Higher numbers mean the cancer is more advanced. Once a person's T, N, and M

categories have been determined, this information is combined in a process called *stage grouping* to assign an overall stage.

The staging system in the table below uses the *pathologic stage* (also called the *surgical stage*). It is determined by examining tissue removed during [an operation](#)². Sometimes, if surgery is not possible right away, the cancer will be given a *clinical* stage instead. This is based on the results of a [physical exam, biopsy, and imaging tests](#) done *before* surgery. For more information see [Cancer Staging](#)³.

The system described below is the most recent AJCC system. It went into effect January 2018. It is specific for staging two types of uterine sarcomas: leiomyosarcoma and endometrial stromal sarcoma.

Uterine sarcoma staging can be complex, so ask your doctor to explain it to you in a way you understand.

Stage	Stage grouping	FIGO Stage	Stage description*
I	T1 N0 M0	I	The cancer is growing in the uterus, but has not started growing outside the uterus. It has not spread to nearby lymph nodes (N0) or to distant sites (M0).
IA	T1a N0 M0	IA	The cancer is only in the uterus and is no larger than 5 cm across (about 2 inches) (T1a). It has not spread to nearby lymph nodes (N0) or to distant sites (M0).
IB	T1b N0 M0	IB	The cancer is only in the uterus and is larger than 5 cm across (about 2 inches). (T1b). It has not spread to nearby lymph nodes (N0) or to distant sites (M0).
II	T2 N0 M0	II	The cancer is growing outside the uterus but is not growing outside of the pelvis (T2). It has not spread to nearby lymph nodes (N0) or to distant sites (M0).
IIIA	T3a	IIIA	The cancer is growing into tissues of the abdomen in one place only (T3a). It has not spread to nearby lymph nodes (N0) or to distant

	N0 M0		sites (M0).
IIIB	T3b N0 M0	IIIB	The cancer is growing into tissues of the abdomen in 2 or more places (T3b). It has not spread to nearby lymph nodes (N0) or to distant sites (M0).
IIIC	T1-T3 N1 M0	IIIC	The cancer is growing in the body of the uterus and it might have spread into tissues of the abdomen, but is not growing into the bladder or rectum (T1 to T3). The cancer has spread to nearby lymph nodes (N1), but not to distant sites (M0).
IVA	T4 Any N M0	IVA	The cancer has spread to the rectum or urinary bladder (T4). It might or might not have spread to nearby lymph nodes (Any N) but has not spread to distant sites (M0).
IVB	Any T Any N M1	IVB	The cancer has spread to distant sites such as the lungs, bones, or liver (M1). The cancer in the uterus can be any size and may or may not have grown into tissues in the pelvis and/or abdomen (including the bladder or rectum) (any T) and it might or might not have spread to nearby lymph nodes (Any N).

* The following additional categories are not listed on the table above:

- **TX:** Main tumor cannot be assessed due to lack of information.
- **T0:** No evidence of a primary tumor.
- **NX:** Regional lymph nodes cannot be assessed due to lack of information.

Hyperlinks

1. www.cancer.org/cancer/uterine-sarcoma/treating/by-stage.html
2. www.cancer.org/cancer/uterine-sarcoma/treating/surgery.html
3. www.cancer.org/treatment/understanding-your-diagnosis/staging.html

References

See all references for Uterine Sarcoma (www.cancer.org/cancer/uterine-sarcoma/references.html)

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Survival Rates for Uterine Sarcoma

Survival rates can give you an idea of what percentage of people with the same type and stage of cancer are still alive a certain amount of time (usually 5 years) after they were diagnosed. They can't tell you how long you will live, but they may help give you a better understanding of how likely it is that your treatment will be successful.

Keep in mind that survival rates are estimates and are often based on previous outcomes of large numbers of people who had a specific cancer, but they can't predict what will happen in any particular person's case. These statistics can be confusing and may lead you to have more questions. Talk with your doctor about how these numbers may apply to you, as he or she is familiar with your situation.

What is a 5-year relative survival rate?

A **relative survival rate** compares people with the same type and stage of uterine sarcoma to people in the overall population. For example, if the **5-year relative survival rate** for a specific stage of uterine sarcoma is 90%, it means that people who have that cancer are, on average, about 90% as likely as people who don't have that cancer to live for at least 5 years after being diagnosed.

Where do these numbers come from?

The American Cancer Society relies on information from the SEER* database, maintained by the National Cancer Institute (NCI), to provide survival statistics for different types of cancer.

The SEER database tracks 5-year relative survival rates for uterine sarcoma in the United States, based on how far the cancer has spread. The SEER database, however, does not group cancers by [FIGO or AJCC TNM stages](#) (stage 1, stage 2, stage 3, etc.). Instead, it groups cancers into localized, regional, and distant stages:

- **Localized:** There is no sign the cancer has spread outside of the uterus.
- **Regional:** The cancer has spread outside the uterus to nearby structures or lymph nodes.
- **Distant:** The cancer has spread to distant parts of the body such as the lungs, liver, or bones.

5-year relative survival rates for uterine sarcoma

(These numbers are based on women diagnosed with uterine sarcoma between 2010 and 2016.)

Leiomyosarcoma

SEER Stage	5-Year Relative Survival Rate
Localized	66%
Regional	34%
Distant	13%
All SEER stages combined	41%

Undifferentiated sarcoma

SEER Stage	5-Year Relative Survival Rate
Localized	66%
Regional	39%
Distant	21%
All SEER stages combined	43%

Endometrial stromal sarcoma*

SEER Stage	5-Year Relative Survival Rate
Localized	99%

Regional	92%
Distant	76%
All SEER stages combined	95%

*The outlook for high-grade ESS tends to be worse than for low-grade ESS, and is more likely to be similar to that for undifferentiated sarcoma (see table above).

Understanding the numbers

- **These numbers apply only to the stage of the cancer when it is first diagnosed.** They do not apply later on if the cancer grows, spreads, or comes back after treatment.
- **These numbers don't take everything into account.** Survival rates are grouped based on how far the cancer has spread, but your age, overall health, [tumor grade](#), [tumor type](#)¹, how well the cancer responds to treatment, and other factors can also affect your outlook.
- **People now being diagnosed with uterine sarcoma may have a better outlook than these numbers show.** Treatments improve over time, and these numbers are based on people who were diagnosed and treated at least five years earlier.

*SEER= Surveillance, Epidemiology, and End Results

Hyperlinks

1. www.cancer.org/cancer/uterine-sarcoma/about/what-is-uterine-sarcoma.html

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See all references for Uterine Sarcoma (www.cancer.org/cancer/uterine-sarcoma/references.html)

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What Should You Ask Your Doctor About Uterine Sarcoma?

It is important for you to have honest, open discussions with your cancer care team. The following are some questions to consider:

- What [type](#)¹ and grade of uterine sarcoma do I have?
- Has the cancer spread beyond my uterus?
- What is the [stage](#) of my cancer and what does that mean for me?
- What [treatments](#)² are appropriate for me? What do you recommend? Why?
- Can I be evaluated by a gynecologic oncologist?
- Am I eligible for a clinical trial?
- What should I do to be ready for treatment?
- Should I get a [second opinion](#)³?
- What risks or side effects should I expect?
- What are the chances my cancer will [come back](#)⁴ with the treatment options we have discussed?
- Should I follow a special diet?
- Will I be able to have children after my treatment?
- What is my prognosis, based on what you know about my cancer?
- When will I be able to return to daily activities?
- How will this affect my sex life?
- Does this cancer prevent me from considering estrogen replacement therapy?

In addition to these sample questions, be sure to write down some of your own. For instance, you may need specific information about anticipated recovery times so that you can plan your work schedule.

Hyperlinks

1. www.cancer.org/cancer/uterine-sarcoma/about/what-is-uterine-sarcoma.html
2. www.cancer.org/cancer/uterine-sarcoma/treating.html
3. www.cancer.org/treatment/finding-and-paying-for-treatment/choosing-your-treatment-team/seeking-a-second-opinion.html
4. www.cancer.org/treatment/survivorship-during-and-after-treatment/understanding-recurrence.html

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