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## About Uterine Sarcoma

### Overview and Types

If you have been diagnosed with uterine sarcoma or are worried about it, you likely have a lot of questions. Learning some basics is a good place to start.

- [What Is Uterine Sarcoma?](#)

### Research and Statistics

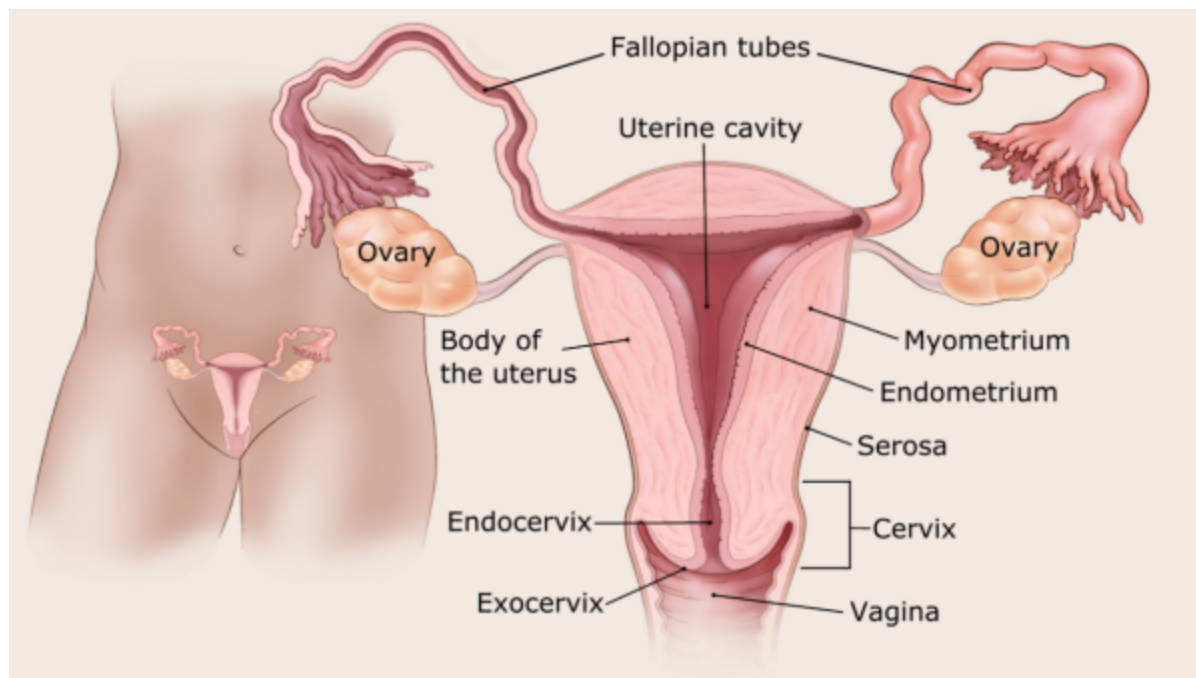
See the latest estimates for new cases of uterine sarcoma and deaths in the US and what research is currently being done.

- [Key Statistics for Uterine Sarcoma](#)
  - [What's New in Uterine Sarcoma Research?](#)
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## What Is Uterine Sarcoma?

Cancer starts when cells in the body begin to grow out of control. Cells in nearly any part of the body can become cancer, and can spread to other areas of the body. To learn more about how cancers start and spread, see [What Is Cancer?](#)<sup>1</sup>

**Uterine sarcoma is a rare cancer that starts in the muscle and supporting tissues of the uterus (womb).**



## About the uterus

The uterus is a hollow organ, usually about the size and shape of a medium-sized pear:

- The lower end of the uterus, which extends into the vagina, is the **cervix**.
- The upper part of the uterus is the body, also known as the **corpus**.

The body of the uterus has 3 layers.

- The inner layer or lining is the **endometrium**.
- The **serosa** is the layer of tissue coating the outside of the uterus.
- In the middle is a thick layer of muscle known as the **myometrium**. This muscle layer is needed to push a baby out during childbirth.

## Cancers of the uterus and endometrium

**Sarcomas** are cancers that start from tissues like muscle, fat, bone, and fibrous tissue (the material that forms tendons and ligaments). Cancers that start in epithelial cells, the cells that line or cover most organs, are called **carcinomas**.

More than 95% of uterine cancers are carcinomas. If a carcinoma starts in the cervix, it is a **cervical carcinoma**. Carcinomas starting in the endometrium, the lining of the

uterus, are **endometrial carcinomas**. These types of cancer are covered in [Cervical Cancer](#)<sup>2</sup> and [Endometrial \(Uterine\) Cancer](#)<sup>3</sup>.

Another type of cancer that starts in the uterus is called **carcinosarcoma**. These cancers start in the endometrium and have features of both sarcomas and carcinomas. These cancers are also known as malignant mixed mesodermal tumors or malignant mixed mullerian tumors. Uterine carcinosarcomas are covered in [Endometrial \(Uterine\) Cancer](#)<sup>4</sup>.

## Types of uterine sarcoma

Most uterine sarcomas are put into categories, based on the type of cell they start in:

### Uterine leiomyosarcoma(LMS)

These tumors start in the muscular wall of the uterus (the **myometrium**). They are by far the most common type. These tumors can grow and spread quickly.

### Endometrial stromal sarcoma (ESS)

ESS tumors start in the supporting connective tissue (**stroma**) of the lining of the uterus (the **endometrium**). These cancers are rare.

If the tumor is low grade, the cancer cells do not look very different from normal cells and the tumor tends to grow slowly. Women with low-grade ESS have a better outlook (prognosis) than women with other kinds of uterine sarcomas.

High-grade ESS means the cancer cells look very different from normal cells, and the tumor is growing quickly. This type of ESS is most often found when the tumor is already large and/or has spread. These tumors are hard to treat.

### Undifferentiated sarcoma

These cancers may start in the endometrium or the myometrium. They grow and spread quickly and tend to have a poor outlook.

## Benign uterine tumors

Several types of benign (not cancer) tumors can also develop in the connective tissues of the uterus. These tumors, such as leiomyomas, adenofibromas, and adenomyomas

are also known as types of **fibroid tumors**. Most of the time, these tumors don't need to be treated. But treatment may be needed if they start causing problems, like pelvic pain, heavy bleeding, frequent urination, or constipation. In some cases, the tumor is removed, leaving the rest of the uterus in place. This surgery is called a **myomectomy**. Some treatments destroy these benign tumors without surgery, by blocking the blood vessels that feed them, by killing the tumor cells with electric current, or by freezing them with liquid nitrogen. Another option is to remove the entire uterus. This surgery is called a **hysterectomy**.

## Hyperlinks

1. [www.cancer.org/cancer/cancer-basics/what-is-cancer.html](http://www.cancer.org/cancer/cancer-basics/what-is-cancer.html)
2. [www.cancer.org/cancer/cervical-cancer.html](http://www.cancer.org/cancer/cervical-cancer.html)
3. [www.cancer.org/cancer/endometrial-cancer.html](http://www.cancer.org/cancer/endometrial-cancer.html)
4. [www.cancer.org/cancer/endometrial-cancer.html](http://www.cancer.org/cancer/endometrial-cancer.html)

## References

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

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## Key Statistics for Uterine Sarcoma

The American Cancer Society's estimates for cancer of the uterine corpus (body of the uterus) in the United States for 2019 are:

- About 61,880 new cases of cancer of the uterine corpus will be diagnosed. More than 90% of cases occur in the endometrium (lining of the uterus).
- About 12,160 women in the United States will die from cancer of the uterine corpus.

Visit the American Cancer Society's [Cancer Statistics Center](#)<sup>1</sup> for more key statistics.

### Hyperlinks

1. <https://cancerstatisticscenter.cancer.org/>

### References

American Cancer Society. *Cancer Facts & Figures 2019*. Atlanta, Ga: American Cancer Society; 2019.

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

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## What's New in Uterine Sarcoma Research?

Recent research has improved our understanding of how changes in certain molecules can cause normal cells to become cancer. We know that mutations (damage or defects) in DNA can alter important [genes](#)<sup>1</sup> that control cell growth. And if these genes are damaged, uncontrolled growth may lead to cancer. Research on DNA from uterine sarcomas has found many changes in the genes that control cell growth. Specific

proteins that are made by genes linked to uterine sarcoma have also been found. Doctors are looking at how they might be useful and are looking for more of them. Researchers expect that discoveries like these will lead to new ways to find, prevent, and treat uterine sarcomas.

[Imaging tests](#)<sup>2</sup> to more accurately diagnose uterine sarcomas is an active area of research. Treatment options greatly depend on whether a uterine tumor is cancer or isn't, for instance, it could be a leiomyoma or a fibroid. Knowing this would help know if surgery is needed, and, if so, would allow doctors to use the best type of surgery to remove the tumor. Efforts to improve imaging tests for these rare tumors have also led researchers to look at how these tests might be used to learn more about the tumor, such as whether chemo will be needed after surgery and likely outcomes. [PET scans](#)<sup>3</sup> using different tracers are being studied, so are contrast-enhanced [MRIs](#)<sup>4</sup>. And researchers are trying to find other factors that, used along with imaging tests, may help point to a uterine sarcoma, such as certain blood tests (LDH level), tumor size, and body weight.

New combinations of [chemotherapy](#)<sup>5</sup> drugs, new drugs, and better ways to give chemo are active areas of research. [Surgery](#)<sup>6</sup> is the standard treatment, but chemo with or without radiation treatments after surgery may help keep cancer from [coming back](#)<sup>7</sup>.

[Hormone therapy](#)<sup>8</sup> may help to treat and control some uterine sarcomas. Researchers are trying to find out if drugs that control estrogen might help delay or even prevent these cancers from coming back after surgery. They are also looking at whether the ovaries need to be removed as part of treatment in all women with uterine sarcoma, or is it's safe to leave them, especially in young women with leiomyosarcoma or stage I cancers.

Doctors are also studying [targeted therapies](#)<sup>9</sup> and [immunotherapies](#)<sup>10</sup> as treatments for uterine sarcoma. These drugs don't work the same as chemotherapy drugs and may help when chemo doesn't work or uterine sarcoma comes back after treatment.

## Hyperlinks

1. [www.cancer.org/cancer/cancer-causes/genetics/genes-and-cancer.html](http://www.cancer.org/cancer/cancer-causes/genetics/genes-and-cancer.html)
2. [www.cancer.org/treatment/understanding-your-diagnosis/tests.html](http://www.cancer.org/treatment/understanding-your-diagnosis/tests.html)
3. [www.cancer.org/treatment/understanding-your-diagnosis/tests/nuclear-medicine-scans-for-cancer.html](http://www.cancer.org/treatment/understanding-your-diagnosis/tests/nuclear-medicine-scans-for-cancer.html)
4. [www.cancer.org/treatment/understanding-your-diagnosis/tests/mri-for-cancer.html](http://www.cancer.org/treatment/understanding-your-diagnosis/tests/mri-for-cancer.html)
5. [www.cancer.org/cancer/uterine-sarcoma/treating/chemotherapy.html](http://www.cancer.org/cancer/uterine-sarcoma/treating/chemotherapy.html)
6. [www.cancer.org/cancer/uterine-sarcoma/treating/surgery.html](http://www.cancer.org/cancer/uterine-sarcoma/treating/surgery.html)

7. [www.cancer.org/treatment/survivorship-during-and-after-treatment/understanding-recurrence.html](http://www.cancer.org/treatment/survivorship-during-and-after-treatment/understanding-recurrence.html)
8. [www.cancer.org/cancer/uterine-sarcoma/treating/hormone-therapy.html](http://www.cancer.org/cancer/uterine-sarcoma/treating/hormone-therapy.html)
9. [www.cancer.org/treatment/treatments-and-side-effects/treatment-types/targeted-therapy.html](http://www.cancer.org/treatment/treatments-and-side-effects/treatment-types/targeted-therapy.html)
10. [www.cancer.org/treatment/treatments-and-side-effects/treatment-types/immunotherapy.html](http://www.cancer.org/treatment/treatments-and-side-effects/treatment-types/immunotherapy.html)

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