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Treating Uterine Sarcoma

If you've been diagnosed with uterine sarcoma, your cancer care team will discuss your treatment options with you. It's important to weigh the benefits of each treatment option against the possible risks and side effects.

How is uterine sarcoma treated?

These are the basic types of treatment for women with uterine sarcoma:

- [Surgery for Uterine Sarcomas](#)
- [Radiation Therapy for Uterine Sarcomas](#)
- [Chemotherapy for Uterine Sarcomas](#)
- [Hormone Therapy for Uterine Sarcomas](#)
- [Targeted Therapy for Uterine Sarcomas](#)

Common treatment approaches

A combination of treatments may be used to treat uterine sarcoma. The choice of treatment depends largely on the [type](#)¹ and [stage](#) of your cancer. Other factors might include your age, your overall health, whether you plan to have children, and your personal preferences.

Most women with uterine sarcoma have surgery to remove the cancer. Radiation, chemotherapy, and hormone therapy are sometimes used to help lower the risk of the cancer coming back after surgery. These treatments may also be used for cancers that cannot be removed with surgery or when a woman can't have surgery because she has other health problems.

- [Treatment for Uterine Sarcoma, by Type and Stage](#)

Who treats uterine sarcoma?

Depending on your situation, you may have different types of doctors on your treatment team:

- A **gynecologist**: a doctor who specializes in diseases of the female reproductive tract
- A **gynecologic oncologist**: a doctor who specializes in the treatment of cancers of the female reproductive system (including surgery and chemotherapy)
- A **radiation oncologist**: a doctor who uses radiation to treat cancer
- A **medical oncologist**: a doctor who uses chemotherapy and other medicines to treat cancer

Many other specialists may be involved in your care as well, including nurse practitioners, nurses, psychologists, social workers, rehabilitation specialists, and other health professionals.

- [Health Professionals Associated With Cancer Care²](#)

Making treatment decisions

It's important to discuss all of your treatment options as well as their possible side effects with your family and your treatment team to make the choice that best fits your needs. If there's anything you don't understand, ask to have it explained.

If time permits, it is often a good idea to seek a second opinion. A second opinion can give you more information and help you feel more confident about the treatment plan you choose.

- [What Should You Ask Your Doctor About Uterine Sarcoma?³](#)
- [Seeking a Second Opinion⁴](#)

Thinking about taking part in a clinical trial

Clinical trials are carefully controlled research studies that are done to get a closer look at promising new treatments or procedures. Clinical trials are one way to get state-of-the-art cancer treatment. In some cases they may be the only way to get access to newer treatments. They are also the best way for doctors to learn better methods to treat cancer. Still, they're not right for everyone.

If you would like to learn more about clinical trials that might be right for you, start by asking your doctor if your clinic or hospital conducts clinical trials.

- [Clinical Trials](#)⁵

Considering complementary and alternative methods

You may hear about alternative or complementary methods that your doctor hasn't mentioned to treat your cancer or relieve symptoms. These methods can include vitamins, herbs, and special diets, or other methods such as acupuncture or massage, to name a few.

Complementary methods refer to treatments that are used along with your regular medical care. Alternative treatments are used instead of a doctor's medical treatment. Although some of these methods might be helpful in relieving symptoms or helping you feel better, many have not been proven to work. Some might even be harmful.

Be sure to talk to your cancer care team about any method you are thinking about using. They can help you learn what is known (or not known) about the method, which can help you make an informed decision.

- [Complementary and Alternative Medicine](#)⁶

Help getting through cancer treatment

People with cancer need support and information, no matter what stage of illness they may be in. Knowing all of your options and finding the resources you need will help you make informed decisions about your care.

Whether you are thinking about treatment, getting treatment, or not being treated at all, you can still get supportive care to help with pain or other symptoms. Communicating with your cancer care team is important so you understand your diagnosis, what treatment is recommended, and ways to maintain or improve your quality of life.

Different types of programs and support services may be helpful, and can be an important part of your care. These might include nursing or social work services, financial aid, nutritional advice, rehab, or spiritual help.

The American Cancer Society also has programs and services – including rides to treatment, lodging, and more – to help you get through treatment. Call our National Cancer Information Center at 1-800-227-2345 and speak with one of our trained

specialists.

- [Palliative Care](#)⁷
- [Find Support Programs and Services in Your Area](#)⁸

Choosing to stop treatment or choosing no treatment at all

For some people, when treatments have been tried and are no longer controlling the cancer, it could be time to weigh the benefits and risks of continuing to try new treatments. Whether or not you continue treatment, there are still things you can do to help maintain or improve your quality of life.

Some people, especially if the cancer is advanced, might not want to be treated at all. There are many reasons you might decide not to get cancer treatment, but it's important to talk to your doctors and you make that decision. Remember that even if you choose not to treat the cancer, you can still get supportive care to help with pain or other symptoms.

- [If Cancer Treatments Stop Working](#)⁹

The treatment information given here is not official policy of the American Cancer Society and is not intended as medical advice to replace the expertise and judgment of your cancer care team. It is intended to help you and your family make informed decisions, together with your doctor. Your doctor may have reasons for suggesting a treatment plan different from these general treatment options. Don't hesitate to ask him or her questions about your treatment options.

Surgery for Uterine Sarcomas

Surgery is the main treatment for [uterine sarcoma](#)¹. The goal of surgery is to remove all of the cancer as one piece. This usually means removing the entire uterus (hysterectomy). In some cases the fallopian tubes, ovaries, and part of the vagina may also need to be removed. Some lymph nodes or other tissue may be taken out as well to see if the cancer has spread outside the uterus. What's done depends on the [type](#)² and grade of the cancer and how far it has spread. (See [How Is Uterine Sarcoma Staged?](#)³) The patient's overall health and age are also important factors.

In some cases, [tests done before surgery](#)⁴ let the doctor plan the operation in detail ahead of time. These tests include imaging studies, like ultrasound, as well as a pelvic exam, endometrial biopsy, and/or D&C. In other cases, the surgeon has to decide what needs to be done based on what's found during surgery. For example, sometimes there's no way to know for certain that a tumor is cancer until it's removed during surgery.

Simple hysterectomy

This surgery removes the whole uterus (the body of the uterus and the cervix). This also is sometimes called a **total hysterectomy**. In a simple hysterectomy, the loose connective tissue around the uterus (called the parametrium), the tissue connecting the uterus and sacrum (the uterosacral ligaments), and the vagina remain intact. Removing the ovaries and fallopian tubes is not really part of a hysterectomy -- officially it's a separate procedure known as a **bilateral salpingo-oophorectomy (BSO)**. The BSO is often done along with a hysterectomy in the same operation (see below).

If the uterus is removed through an incision (cut) in the front of the abdomen (belly), the surgery is called an **abdominal hysterectomy**. When the uterus is removed through the vagina, it's called a **vaginal hysterectomy**.

If [lymph nodes](#)⁵ need to be removed and tested, this can be done through the same incision as the abdominal hysterectomy. If a hysterectomy is done through the vagina, lymph nodes can be removed using a laparoscope. A laparoscope is a thin lighted tube with a video camera at the end. It can be put into the body through a small incision and lets the doctor see inside the body without making a big incision. The doctor can use long, thin tools that are put in through other small incisions to operate. A laparoscope is sometimes used to help remove the uterus when the doctor is doing a vaginal hysterectomy. This is called a **laparoscopic assisted vaginal hysterectomy**. The uterus can also be removed through the abdomen with a laparoscope, sometimes with a robotic approach, in which the surgeon sits at a control panel in the operating room and moves robotic arms to operate. Laparoscopic procedures have shorter recovery times than regular abdominal hysterectomies, but often the surgery takes longer. Talk with your surgeon about how the surgery will be done and why it's the best plan for you.

Either general or regional anesthesia is used for the procedure. This means that the patient is in a deep sleep or is sedated and numb from the waist down.

For an abdominal hysterectomy the hospital stay is usually 3 to 5 days. Complete recovery takes about 4 to 6 weeks. A laparoscopic procedure and vaginal hysterectomy usually mean a hospital stay of 1 to 2 days and 2 to 3 weeks recovery.

After a hysterectomy, a woman cannot become pregnant and give birth to children. Surgical complications are rare but could include excessive bleeding, wound infection, and damage to the urinary or intestinal systems.

Radical hysterectomy

This operation removes the entire uterus as well as the tissues next to the uterus and cervix (parametrium and uterosacral ligaments) and the upper part (about 1 inch) of the vagina (near the cervix). This operation is not often used for uterine sarcomas.

Radical hysterectomy is most often done through an abdominal surgical incision, but it can also be done through the vagina or laparoscopically, with or without a robotic approach (in which the surgeon sits at a control panel in the operating room and moves robotic arms to operate). Most patients having a radical hysterectomy also have some lymph nodes removed, either through the abdominal incision or laparoscopically. Radical hysterectomy can be done using either general or regional anesthesia.

Because more tissue is removed by a radical hysterectomy than with a simple hysterectomy, the hospital stay may be longer.

This surgery leaves the woman unable to become pregnant and give birth to children.

Complications are much like, but more common than those associated with a simple hysterectomy, and could include excessive bleeding, wound infection, and damage to the urinary or intestinal systems. If some of the nerves of the bladder are damaged, a catheter will be needed to empty the bladder for some time after surgery. This usually gets better and the catheter can be taken out later.

Bilateral salpingo-oophorectomy

This operation removes both fallopian tubes and both ovaries. In treating uterine sarcomas, this operation is usually done at the same time the uterus is removed. If both of your ovaries are removed, you will go into menopause if you have not done so already.

Symptoms of menopause include hot flashes, night sweats, and vaginal dryness. These symptoms are caused by a lack of estrogen and may be improved with estrogen therapy. Estrogen therapy also lowers a woman's risk of osteoporosis (weakening and thinning of the bones). But estrogen can cause some types of uterine sarcoma to grow, so many doctors are concerned that it could increase the chance of the cancer coming back. Most experts in this field consider estrogen therapy too risky for most women who

have had uterine sarcoma. Some doctors prescribe it only when the [stage](#)⁶ and grade of the cancer indicate a very low risk of the cancer coming back. A woman who has had uterine sarcoma should discuss the risks and benefits of estrogen therapy with her doctor before making a decision. Other treatments can be used to help relieve symptoms of menopause and prevent osteoporosis that do not affect the risk of the cancer coming back.

Lymph node surgery

Sometimes it looks like the cancer may have spread outside the uterus or nearby lymph nodes look swollen on imaging tests. In this case, your surgeon may do a **lymph node dissection** or a **lymph node sampling**, which removes lymph nodes in the pelvis and around the aorta (the main artery that runs from the heart down along the back of the abdomen and pelvis). These lymph nodes are then checked under a microscope to see if they have cancer cells. If cancer is found in the lymph nodes, it means that the cancer has already spread outside of the uterus. This isn't good and means the woman has a poor prognosis (outlook).

This operation is done through the same surgical incision in the abdomen as the simple abdominal hysterectomy or radical abdominal hysterectomy. If a vaginal hysterectomy has been done, the lymph nodes can be removed with laparoscopic surgery.

Removing lymph nodes in the pelvis can lead to a build-up of fluid in the legs, called **lymphedema**. This is more likely if radiation is given after surgery. You can find out more about this in [Lymphedema](#).⁷

Other procedures that may be done during surgery

- **Omentectomy:** The omentum is a layer of fatty tissue that covers the abdominal contents like an apron. Cancer sometimes spreads to this tissue. When this tissue is removed, it's called an **omentectomy**. The omentum is sometimes removed at the same time the hysterectomy is done if cancer has spread there, or as a part of [staging](#)⁸.
- **Peritoneal biopsies:** The tissue lining the pelvis and abdomen is called the peritoneum. Peritoneal biopsies remove small pieces of this lining to check for cancer cells.
- **Pelvic washings:** In this procedure, the surgeon "washes" the abdominal and pelvic cavities with salt water (saline) and then sends the fluid to the lab to see if it contains cancer cells.

- **Tumor debulking:** If cancer has spread throughout the abdomen, the surgeon may attempt to remove as much of the tumor as possible. This is called **debulking**. For some types of cancer, debulking can help other treatments (like radiation or chemotherapy) work better. Its role in treating uterine sarcoma isn't clear.

Sexual impact of surgery

If you are premenopausal, removing your uterus stops menstrual bleeding (periods). If your ovaries are also removed, you will go into menopause. This can lead to vaginal dryness and pain during sex. These symptoms can be improved with estrogen treatment, but this hormone isn't safe for all women with uterine sarcoma. Other medicines may be helpful for those women.

While physical and emotional changes can affect the desire for sex, these surgical procedures do not prevent a woman from feeling sexual pleasure. A woman does not need ovaries or a uterus to have sex or reach orgasm. Surgery can actually improve a woman's sex life if the cancer had caused problems with pain or bleeding during sex. See [Sex and the Woman With Cancer](#)⁹ for more on this.

Hyperlinks

1. www.cancer.org/cancer/uterine-sarcoma/about/what-is-uterine-sarcoma.html
2. www.cancer.org/cancer/uterine-sarcoma/about/what-is-uterine-sarcoma.html
3. www.cancer.org/cancer/uterine-sarcoma/detection-diagnosis-staging/staging.html
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Radiation Therapy for Uterine Sarcomas

Radiation therapy uses high-energy radiation (such as x-rays) to kill cancer cells. Two types of radiation treatments may be used for [uterine sarcoma](#)¹:

- External beam radiation therapy

- Internal radiation therapy or brachytherapy.

Sometimes both brachytherapy and external beam radiation therapy are used. How much of the pelvis needs to be exposed to radiation therapy and the type(s) of radiation used depend on the extent of the disease.

Radiation may be used to treat uterine sarcoma in these ways:

- When the tumor can be seen growing through the cervix, radiation therapy might be used before surgery to make it easier to remove all the cancer.
- After surgery it may help lower the chance of the cancer coming back in the pelvis. This is called **adjuvant radiation**. It may be done for cancers that are high grade or when cancer cells are found in the lymph nodes. In these cases, the entire pelvis may be treated with external beam radiation therapy. Sometimes the radiation field will also include an area of the abdomen (belly) called the **para-aortic field**. This is the area around the aorta (the main artery).
- It may be the main treatment in a woman who can't have surgery because of other health problems.
- It may be used to treat problems caused by tumor growth, but is not intended to treat the cancer. For instance, radiation can be used to shrink a tumor that's causing pain and swelling by pressing on nerves and blood vessels. This is called [supportive or palliative care](#)².

External beam radiation therapy

[External beam radiation](#)³ therapy is the more common type of treatment in which a large machine directs the radiation into the body. The treatments are a lot like getting an x-ray.

This therapy is usually given 5 days a week for 4 or 5 weeks. The actual radiation treatment takes less than 30 minutes.

The skin covering the area over the tumor is carefully marked with permanent ink or tiny tattoos. These marks are used to send the radiation to the right area. A special mold of the pelvis and lower back is custom-made to be sure the woman is in the exact same position for each treatment.

Brachytherapy

[Brachytherapy](#)⁴ places radioactive materials close to the tumor. Women treated with this type of radiation are not radioactive after the implant is removed.

In cases where less than the upper 2/3 of the vagina needs to be treated, the radioactive material is put in through the vagina. This is called **vaginal brachytherapy**.

Treatment is done in the radiation suite of the hospital or treatment center. About 6 to 8 weeks after the hysterectomy, the surgeon or radiation oncologist puts a special cylinder (applicator) into the woman's vagina. The length of the cylinder (and the amount of the vagina treated) can vary, but the upper part of the vagina is always treated. Pellets of radioactive material are then put into the applicator. Nearby structures, like the bladder and rectum, get less radiation exposure.

There are 2 types of brachytherapy: low-dose rate (LDR) and high-dose rate (HDR).

In LDR brachytherapy, the radiation pellets are usually left in for 1 to 4 days at a time. The patient needs to stay very still to keep the applicator from moving during treatment, so she's usually kept in the hospital on strict bed rest. More than one treatment may be needed.

In HDR brachytherapy, the radiation is more intense. It's given the same way as LDR, but a higher dose of radiation is given over hours instead of days. Because the applicator is in for a shorter period of time, the patient can usually go home the same day. For uterine cancers, HDR brachytherapy is often given daily or weekly for a total of about 3 doses .

Side effects of radiation therapy

Short-term side effects

Short-term or temporary [side effects](#)⁵ of radiation therapy include:

- Extreme tiredness (fatigue)
- Nausea and vomiting
- Loose stools or diarrhea
- Skin changes
- Low blood counts

Skin changes are also common, with the skin in the treated area looking and feeling

sunburned. As the radiation passes through the skin to its intended target, it may damage the skin cells. This can cause irritation that ranges from temporary and mild redness to permanent discoloration. The skin may release fluid, which can lead to infection, so care must be taken to clean and protect the area exposed to radiation.

This same kind of damage can happen inside the vagina with brachytherapy. As long as a woman is not bleeding heavily, she can continue to have sex during radiation therapy. But the outer genitals and vagina may become sore and tender to touch, and many women choose to stop having sex for a while to let the area heal.

Side effects tend to be worse when chemotherapy is given along with radiation.

Almost all side effects can be treated with medicines and go away over time after treatment ends. If you're having any side effects from radiation, discuss them with your cancer care team. There are things you can do to get relief from these symptoms or prevent them.

Long-term side effects of radiation

Radiation can also cause some side effects that can last a long time.

Radiation can irritate the bladder and may cause problems with urination. Bladder irritation, called **radiation cystitis**, can cause discomfort and an urge to urinate frequently.

Radiation therapy might also cause scar tissue to form in the vagina. If the scar tissue makes the vagina shorter or more narrow it's called **vaginal stenosis**. This can make vaginal sex painful. A woman can help prevent this problem by stretching the walls of her vagina several times a week. This can be done by having sex 3 to 4 times a week or by using a vaginal dilator (a plastic or rubber tube used much like a tampon to stretch out the vagina). Still, vaginal dryness and pain with sex can be long-term problems after radiation. We have more information on how [radiation can impact your sex life](#)⁶.

Pelvic radiation can damage the ovaries, resulting in premature menopause. But most women being treated for uterine sarcoma have already gone through menopause, either naturally or as a result of surgery to treat the cancer.

Radiation to the pelvis can impair fluid drainage from the legs, leading to leg swelling. This is called [lymphedema](#)⁷. It's more common in women who had lymph nodes removed during surgery.

Pelvic radiation can also weaken bones, leading to fractures of the hips or pelvic bones.

It's important that women who have had pelvic radiation contact their doctor right away if they have pelvic pain. Such pain might be caused by a fracture, recurrent cancer, or other serious conditions.

For more information, visit the [radiation therapy section](#)⁸ of our website.

Hyperlinks

1. www.cancer.org/cancer/uterine-sarcoma/about/what-is-uterine-sarcoma.html
2. www.cancer.org/treatment/treatments-and-side-effects/palliative-care.html
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Chemotherapy for Uterine Sarcomas

Chemotherapy (chemo) is the use of drugs to treat cancer. The drugs can be swallowed as pills or they can be injected by needle into a vein or muscle. Chemo is systemic therapy. This means that the drug enters the bloodstream and circulates throughout the body to reach and destroy cancer cells. This makes chemo a useful treatment for cancer that has spread beyond the uterus. When chemo is given to shrink the cancer before surgery, it's called **neoadjuvant** treatment. If it's given after the cancer has been removed with surgery, it's called **adjuvant** therapy. Here are some ways chemo may be used for [uterine sarcoma](#)¹:

- Adjuvant chemo is often used to help keep the cancer from coming back later.
- Chemo can also be used as the main therapy to treat the cancer if a woman is unable to have surgery.
- Sometimes chemo is used to control uterine sarcoma that has spread to other parts of the body or came back after surgery. In this case, the goal may be to [ease symptoms](#)² and try to keep the tumor from growing.

Chemo may not work for certain [types of uterine sarcoma](#)³. Better results seem to be seen with earlier [stages](#)⁴ of this cancer, and [types](#)⁵ that are more likely to come back after surgery. And some types of uterine sarcoma have been found to respond better to certain drugs and drug combinations. The role of chemo, as well as the best chemo drugs to use are not clear. Still, there are a lot of [clinical trials](#)⁶ looking at this, and some studies have shown that chemo can help some women live longer after surgery.

Some of the drugs commonly used to treat uterine sarcomas include:

- Dacarbazine (DTIC)
- Docetaxel (Taxotere[®])
- Doxorubicin (Adriamycin[®])
- Liposomal doxorubicin (Doxil[®])

- Epirubicin (Ellence[®])
- Gemcitabine (Gemzar[®])
- Ifosfamide (Ifex[®])
- Paclitaxel (Taxol[®])
- Temozolomide (Temodar[®])
- Trabectedin (Yondelis[®])
- Vinorelbine (Navelbine[®])

In most cases, more than one drug is used. For example, gemcitabine and docetaxel are often used together to treat leiomyosarcoma.

These drugs kill cancer cells but can also damage some normal cells. This is what causes many [side effects](#)⁷. Side effects of chemo depend on the specific drugs, the amount taken, and the length of time you are treated. Some common side effects include:

- Nausea and vomiting
- Loss of appetite
- Hair loss
- Low blood counts

Chemo can damage the blood-producing cells of the bone marrow, leading to low blood cell counts. This can cause:

- An increased chance of serious [infection](#)⁸ (from a shortage of white blood cells)
- Problems with bleeding or bruising (from a shortage of blood platelets)
- Feeling tired or short of breath (due to low red blood cell counts)

It's important to let your cancer care team know about any problems you have while on chemo, because many side effects can be prevented or treated. For instance, there are many good medicines to prevent or reduce nausea and vomiting. Most side effects of chemo go away over time when the treatment is over.

Some side effects from chemotherapy can last a long time. For example, the drug doxorubicin can damage the heart muscle over time. The chance of heart damage goes up as the total dose of the drug goes up, so doctors limit how much doxorubicin can be given. Cisplatin can cause kidney damage. Giving large amounts of fluid before and after chemo can help protect the kidneys. Both cisplatin and paclitaxel can cause [nerve damage](#)⁹ (called **neuropathy**). This can cause numbness, tingling, or even pain in the

hands and feet.

For more information, see [Chemotherapy](#)¹⁰.

Hyperlinks

1. www.cancer.org/cancer/uterine-sarcoma/about/what-is-uterine-sarcoma.html
2. www.cancer.org/treatment/treatments-and-side-effects/palliative-care.html
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Hormone Therapy for Uterine Sarcomas

Hormone therapy is the use of hormones or hormone-blocking drugs to fight cancer. Part of [diagnosing uterine sarcoma](#)¹ includes lab tests that check the cancer cells to see if they have receptors where hormones can attach. If they do, they may respond to hormone treatment. Hormone therapy is mainly used to treat women with endometrial stromal sarcomas (ESS) and is rarely used for the other [types of uterine sarcomas](#)².

Progestins

Progestins are drugs that act like the hormone progesterone. The progestins used most often to treat uterine sarcomas are megestrol (Megace[®]) and medroxyprogesterone (Provera[®]). Both of these drugs are pills you take every day.

Side effects can include increased blood sugar levels in patients with diabetes. Hot flashes, night sweats, and weight gain (from fluid retention and an increased appetite) also occur. Rarely, serious blood clots are seen in patients taking progestins.

Gonadotropin-releasing hormone agonists

Gonadotropin-releasing hormone (GNRH) agonists keep the ovaries from making estrogen. These drugs are used to lower estrogen levels in women who are premenopausal. (Before menopause, almost all a woman's estrogen is made by the

ovaries.) Examples of GnRH agonists include goserelin (Zoladex[®]) and leuprolide (Lupron[®]). These drugs are given as a shot every 1 to 3 months.

Side effects can include any of the symptoms of menopause, such as hot flashes and vaginal dryness. If they are taken for a long time, these drugs can weaken bones, sometimes leading to osteoporosis.

Aromatase inhibitors

After the ovaries are removed, or aren't working (after menopause), estrogen is still made in fat tissue. This becomes the body's main source of estrogen. Drugs called **aromatase inhibitors** can stop this estrogen from being made. Examples of aromatase inhibitors include letrozole (Femara[®]), anastrozole (Arimidex[®]), and exemestane (Aromasin[®]). These drugs are most often used to treat breast cancer, but they also might be helpful in treating endometrial stromal sarcoma. Because they don't affect estrogen made by the ovaries, they are only useful in women whose ovaries have been removed or no longer work (like after menopause).

Side effects can include any of the symptoms of menopause, such as hot flashes and vaginal dryness, as well as joint/muscle pain. If they are taken for a long time (years), these drugs can weaken bones, sometimes leading to osteoporosis.

Hyperlinks

1. www.cancer.org/cancer/uterine-sarcoma/detection-diagnosis-staging/how-diagnosed.html
2. www.cancer.org/cancer/uterine-sarcoma/about/what-is-uterine-sarcoma.html

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Targeted Therapy for Uterine Sarcomas

Targeted therapy is treatment with drugs that are made to target changes in the cancer cells. Some people group them with chemotherapy, but they aren't the same. Targeted therapies leave most healthy cells alone. They often cause fewer and different side effects than chemo. They are very new in the treatment of certain [types of uterine sarcoma](#)¹.

Pazopanib (Votrient) is a targeted therapy that may be used to treat leiomyosarcoma that has spread or come back after treatment.

[Side effects](#)² include things like high blood pressure, headache, and skin changes.

Targeted therapy is used to treat many types of cancer, but it's still new in the treatment of uterine sarcoma. As doctors learn more about these cancer cells it could become an important part of treatment.

See [Targeted Therapy](#)³ to learn more about this cancer treatment.

Hyperlinks

1. www.cancer.org/cancer/uterine-sarcoma/about/what-is-uterine-sarcoma.html
2. www.cancer.org/treatment/treatments-and-side-effects/treatment-types/targeted-therapy/side-effects.html
3. www.cancer.org/treatment/treatments-and-side-effects/treatment-types/targeted-therapy.html

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Treatment for Uterine Sarcoma, by Type and Stage

Surgery to remove the uterus, sometimes along with the fallopian tubes and ovaries and to check the lymph nodes, is the main treatment for all uterine sarcomas. Sometimes this is followed by treatment with **radiation**, **chemotherapy** (chemo), or **hormone therapy**. **Targeted therapy** may also be used in advanced cancers.

Treatments given after the cancer has been completely removed with surgery are called **adjuvant treatments**. Adjuvant therapy is used to help keep the cancer from coming back. This approach has helped patients with certain cancers like colon and breast cancer live longer. So far, though, the value of adjuvant treatments for uterine sarcoma isn't clear.

Women who can't have surgery because they have other health problems are treated with radiation, chemo, or hormone therapy. Often some combination of these treatments is used.

Because uterine sarcoma is rare, it's been hard to study it well. Most experts agree that treatment in a [clinical trial](#)¹ should be considered for any type or stage of uterine sarcoma. This way women can get the best treatment available now and may also get the treatments that are thought to be even better.

Leiomyosarcoma and undifferentiated sarcoma

Stages I and II

Most women have **surgery** to remove the uterus (hysterectomy), as well as the fallopian tubes and ovaries (bilateral salpingo-oophorectomy). Pelvic and para-aortic lymph node dissection or laparoscopic lymph node sampling may be done if swollen nodes are seen on imaging tests. During surgery, organs near the uterus and the thin membrane that lines the pelvic and abdominal cavities (called the peritoneum) are closely checked to see if the cancer has spread beyond the uterus.

Very rarely, young women with low-grade leiomyosarcomas (LMS) that have not spread beyond the uterus may be able to have just the tumor removed, leaving the uterus, fallopian tubes, and ovaries in place. This is not standard treatment, little is known about long-term outcomes, and it's not often offered. Still, it may be a choice for some women who want to be able to have children after cancer treatment. This option has risks, so women thinking about this surgery need to talk about the pros and cons with their treatment team before making a decision. It may also be possible to leave a young woman's ovaries in place (but remove the uterus and fallopian tubes), since it isn't clear that this will lead to worse outcomes. Again, this is not a standard treatment, and you should discuss the risks and benefits with your doctor. In either case, close follow-up is

important, and more surgery may be needed if the cancer comes back.

Women with stage I cancers may not need more treatment and are watched closely after surgery. In other cases, treatment with [radiation](#), with or without [chemo](#), may be needed after surgery if there's a high chance of the cancer coming back in the pelvis. This is called **adjuvant treatment**. The goal of surgery is to take out all of the cancer, but the surgeon can only remove what can be seen. Tiny clumps of cancer cells that are too small to be seen can be left behind. Treatments given after surgery are meant to kill those cancer cells so that they don't get the chance to grow into larger tumors. For LMS of the uterus, adjuvant radiation may lower the chance of the cancer growing back in the pelvis (called **local recurrence**), but it doesn't seem to help women live longer.

Since the cancer can still come back in the lungs or other distant organs, some experts recommend giving chemo after surgery (**adjuvant chemotherapy**) for stage II cancers. Chemo is sometimes recommended for stage I LMS as well, but it's less clear that it's really helpful. So far, results from studies of adjuvant chemo have been promising in early stage LMS, but long-term follow-up is still needed to see if this treatment really helps women live longer. Studies of adjuvant therapy are in progress.

Stage III

[Surgery](#) is done to remove all of the cancer. This includes removing the uterus (a hysterectomy), removing both fallopian tubes and ovaries (bilateral salpingo-oophorectomy), and lymph node dissection or sampling. If the tumor has spread to the vagina, part (or even all) of the vagina will need to be removed as well.

After surgery, treatment with [radiation](#) (with or without [chemo](#)) may be offered to lower the chance that the cancer will come back.

Women who are too sick (from other medical problems) to have surgery may be treated with radiation and/or chemo.

Stage IV

This is divided into stage IVA and stage IVb.

Stage IVA cancers have spread to nearby organs and tissues, such as the bladder or rectum, and maybe to nearby lymph nodes. These cancers might be able to be completely removed with [surgery](#), and this is usually done if possible. If the cancer cannot be removed completely, [radiation](#) may be given, either alone or with [chemo](#).

Stage IVB cancers have spread outside the pelvis, most often to the lungs, liver, or bone. There's no standard treatment for these cancers. [Chemo](#) may be able to shrink the tumors for a time, but is not thought to be able to cure the cancer. [Radiation therapy](#), given along with chemo, may also be an option.

These cancers might also be treated with [targeted therapy](#) when other treatments don't work. They're often given along with chemo.

Endometrial stromal sarcoma

Stages I and II

Early stage endometrial stromal sarcoma is treated with [surgery](#): hysterectomy and bilateral salpingo-oophorectomy. (This means removal of the uterus, both fallopian tubes, and both ovaries.) Some young women may be given the option of keeping their ovaries, but this is not the standard treatment. Pelvic lymph nodes may be removed if they look swollen on imaging tests.

After surgery, most women don't need more treatment. These women are watched closely for signs that the cancer has returned. Others may be treated with [hormone therapy](#) and sometimes [radiation](#) to the pelvis. These can lower the chances of the cancer coming back, but they have not been shown to help patients live longer. This type of uterine sarcoma does not respond well to chemo, and it's not often used at these early stages.

Women who are too sick (from other medical conditions) to have surgery may be treated with radiation and/or hormone therapy.

Stage III

[Surgery](#) is done to remove all of the cancer. This includes removing the uterus (a hysterectomy), as well as removing both fallopian tubes and ovaries (bilateral salpingo-oophorectomy). Lymph nodes may be checked if they look swollen. If the tumor has spread to the vagina, part (or even all) of the vagina will need to be removed too.

Women with endometrial stromal sarcomas might get [radiation](#), [hormone therapy](#), or both after surgery. Chemo may be used if other treatments don't work.

Women who are too sick (from other medical conditions) to have surgery may be treated with radiation, [chemo](#), and/or hormone therapy.

Stage IV

This stage is divided into stage IVA and stage IVB.

Stage IVA cancers have spread to nearby organs and tissues, such as the bladder or rectum. These cancers may be able to be completely removed with surgery, and this is usually done if possible. If the cancer cannot be removed completely, radiation may be given, either alone or with chemo. [Hormone therapy](#) is also an option.

Stage IVB cancers have spread outside of the pelvis, most often to the lungs, liver, or bone. Hormone therapy can help for a time. [Chemo](#) and [radiation](#) are also options to help ease symptoms.

Recurrent uterine sarcoma

If a cancer comes back after treatment, it's called **recurrent cancer**. If it comes back in the same place as it was before, it's called a **local recurrence**. For uterine sarcoma, the cancer growing back as a tumor in the pelvis would be a local recurrence. If it comes back in another part of the body, like the liver or lungs, it's called a **distant recurrence**.

Uterine sarcoma often comes back in the first few years after treatment.

Treatment options for recurrent uterine sarcoma are the same as those for stage IV. If the cancer can be removed, [surgery](#) may be done. If not already given, [radiation](#) may be used to reduce the size of the tumor and relieve the symptoms of large pelvic tumors. Easing symptoms caused by cancer is called [palliative or supportive care](#)².

Sarcoma often comes back in the lungs. If there are only 1 or 2 small tumors, these may be able to be removed with surgery. [Chemo](#) and/or radiation are options after surgery. They may also be used for distant recurrence that can't be taken out with surgery.

Women with recurrent uterine sarcomas might want to take part in [clinical trials](#)³ (scientific studies of promising treatments) testing new chemo or other treatments.

Hyperlinks

1. www.cancer.org/treatment/treatments-and-side-effects/clinical-trials.html
2. www.cancer.org/treatment/treatments-and-side-effects/palliative-care.html
3. www.cancer.org/treatment/treatments-and-side-effects/clinical-trials.html

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

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Written by

The American Cancer Society medical and editorial content team
(www.cancer.org/cancer/acs-medical-content-and-news-staff.html)

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