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## Treating Vulvar Cancer

If you've been diagnosed with vulvar cancer, 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 are vulvar cancers and pre-cancers treated?

For pre-cancers (vulvar intraepithelial neoplasia or VIN), topical treatments can be used. For vulvar cancers, there are 3 main types of treatment.

- [Topical Therapy for Vulvar Pre-Cancer](#)
- [Surgery for Vulvar Cancer](#)
- [Radiation Therapy for Vulvar Cancer](#)
- [Chemotherapy for Vulvar Cancer](#)

### Common treatment approaches

Treatment for vulvar cancer depends on its type and stage. Other factors can also help determine the best treatment plan, such as your age, your general health, your individual circumstances, and your preferences.

- [Treatment of Squamous Cell Vulvar Cancer](#)
- [Treatment of Vulvar Adenocarcinoma](#)
- [Treatment of Vulvar Melanoma](#)

### Who treats vulvar cancer?

Depending on the type and stage of your vulvar cancer, you may need more than one type of treatment. Doctors on your cancer treatment team may include:

- A **gynecologist**: a doctor who specializes in diseases of the female reproductive tract
- A **gynecologic oncologist**: a doctor who specializes in treating 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 Care](#)

### **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.

- [Questions to Ask Your Doctor About Vulvar Cancer](#)
- [Seeking a Second Opinion](#)

### **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](#)

## 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 Integrative Medicine](#)

## 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](#)
- [Find Support Programs and Services in Your Area](#)

## 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](#)

*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.*

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## Surgery for Vulvar Cancer

Surgery is the main treatment for vulvar cancer. Each woman's surgery must balance the need to remove all of the cancer with the importance of her ability to have a sex life. It's also important to consider how close the tumor is to the urethra and anus, because changes in how waste leaves the body can also have a huge impact on quality of life. (The vulva includes the labia, the opening to the vagina, and the clitoris. See [What is Vulvar Cancer?](#)<sup>1</sup> for details.)

In the past, the vulvar tumor and a large amount of nearby normal tissue were removed. In most cases, nearby lymph nodes were taken out, too, regardless of the stage of the cancer. This was done to be sure that no cancer cells were left behind. Such extensive surgery resulted in good cancer outcomes, but it was deforming and impaired the woman's sexual function as well as how she passed urine and stool. And taking out all

the lymph nodes in the groin often led to disabling swelling of the leg ([lymphedema<sup>2</sup>](#)) on that side.

Today, the importance of quality of life and sexuality is well recognized. Doctors have also learned that, when cancer is found early, there's no need to remove so much surrounding healthy tissue. Also, the sentinel node biopsy procedure is an option to removing many lymph nodes if the cancer has not spread (this is discussed below).

Still, when cancer is more advanced, an extensive procedure may be necessary. In some cases, [radiation](#) can be combined with [chemotherapy](#) and surgery to kill more cancer cells in advanced cancers.

## Vulva surgery

The following types of surgery are listed in order of how much tissue is removed from the vulva (from least to most):

### Laser surgery

A focused laser beam vaporizes (burns off) the layer of vulvar skin containing abnormal cells. Laser surgery may be used as a treatment for VIN (vulvar pre-cancer). It's not used to treat invasive cancer.

### Excision

The cancer and an edge (margin) of normal, healthy skin (usually at least ½ inch) around it and a thin layer of fat below it are excised (cut out). This is sometimes called *wide local excision*. If extensive (a lot of tissue is removed), it may be called a **simple partial vulvectomy**.

### Vulvectomy

In this type of operation, all or part of the vulva is removed.

- A **skinning vulvectomy** removes only the top layer of skin affected by the cancer. This is an option for treating extensive VIN, but this operation is rarely done.
- In a **simple vulvectomy**, the entire vulva is removed (the inner and outer labia; sometimes the clitoris, too) as well as tissue just under the skin.
- A **partial or modified radical vulvectomy** removes part of the vulva, including the deep tissue.

- In a **complete radical vulvectomy**, the entire vulva and deep tissues, including the clitoris, are removed. A complete radical vulvectomy rarely needed.

### ***Vulvar reconstruction***

Sometimes these procedures remove a large area of skin from the vulva, requiring skin grafts from other parts of the body to cover the wound. But, most of the time the surgical wounds can be closed without grafts and still provide a very satisfactory appearance. If a skin graft is needed, the gynecologic oncologist may do it. Otherwise, it may be done by a plastic/reconstructive surgeon after the vulvectomy.

Reconstructive surgery is available for women who have had more extensive surgery. A reconstructive surgeon can take a piece of skin and underlying fatty tissue and sew it into the area where the cancer was removed. Several sites in the body can be used, but it's complicated by the fact that the blood supply to the transplanted tissue needs to be kept intact. This is where a skillful surgeon is needed because the tissue must be moved without damaging the blood supply. If you're having flap reconstruction, ask the surgeon to explain how it will be done, because there's no set way of doing it.

### **Pelvic exenteration**

Pelvic exenteration is an extensive operation that when used to treat vulvar cancer includes vulvectomy and often removal of the pelvic lymph nodes, as well as removal of one or more of the following structures: the lower colon, rectum, bladder, uterus, cervix, and vagina. How much has to be removed depends on how far the cancer has spread into nearby organs. This is very complex surgery that can lead to many different kinds of complications.

If the bladder is removed, a new way to store and pass urine is needed. Usually a short piece of intestine is used to function as a new bladder. This may be connected to the abdominal wall so that urine can be drained when the woman places a catheter into a small opening (called a [urostomy](#)<sup>3</sup>). Or urine may drain continuously into a small plastic bag that sticks to the belly over the opening.

If the rectum and part of the colon are removed, a new way to eliminate solid waste will be needed. This is made by attaching the remaining intestine to the abdominal wall so that stool can pass through a small opening (called a [colostomy](#)<sup>4</sup>) into a small plastic bag worn on the front of the abdomen. Sometimes it's possible to remove a piece of the colon and then reconnect it. In that case, bags or external appliances aren't needed.

## Lymph node surgery

Because vulvar cancer often spreads to [lymph nodes](#)<sup>5</sup> in the groin, these may need to be removed. Treating the lymph nodes is important when it comes to the risk of cancer coming back and long-term outcomes. Still, there's no one best way to do this. Talk to your doctor about what's best for you, why it's best, and what the treatment side effects might be.

### Inguinal lymph node dissection

Surgery to remove lymph nodes in the groin is called an **inguinal lymph node dissection**. Usually only lymph nodes on the same side as the cancer are removed. If the cancer is in or near the middle, then both sides may have to be done.

In the past, the incision (cut in the skin) that was used to remove the cancer in the vulva was made larger to remove the lymph nodes, too. Now, doctors remove the lymph nodes through a separate incision about 1 to 2 cm (less than ½ to 1 inch) below and parallel to the groin crease. The incision is deep, down through membranes that cover the major nerves, veins, and arteries. This exposes most of the inguinal lymph nodes, which are then removed as a solid piece. A major vein, the saphenous vein, may or may not be closed off by the surgeon. Some surgeons will try to save it in an effort to reduce leg swelling (lymphedema) after surgery, but some doctors will not try to save the vein since the problem with swelling is mainly caused by the lymph node removal.

After the surgery, a drain is placed into the incision and the wound is closed. The drain stays in until it's not draining much fluid.

### Sentinel lymph node biopsy

This procedure can help some women avoid having a full inguinal node dissection. It's used to find and remove the lymph nodes that drain the area where the cancer is. These lymph nodes are known as **sentinel lymph nodes** because cancer would be expected to spread to them first. The lymph nodes that are removed are then looked at under the microscope to see if they contain cancer cells. If they do, then the rest of the lymph nodes in this area need to be removed. If the sentinel nodes do not contain cancer cells, further lymph node surgery isn't needed. This procedure can be used instead of an inguinal lymph node dissection for cancers that are fairly small (less than 4 cm) as long as there's no obvious lymph node spread.

To find the sentinel lymph node(s), a small amount of radioactive material and/or blue dye is injected into the tumor site on the day before surgery. The groin is scanned to

identify the side (left or right) that picks up the radioactive material. This is the side where the lymph nodes will be removed. During the surgery to remove the cancer, blue dye will be injected again into the tumor site. This allows the surgeon to find the sentinel node by its blue color and then remove it. Sometimes 2 or more lymph nodes turn blue and are removed.

If a lymph node near a vulvar cancer is abnormally large, it's more likely to contain cancer and a sentinel lymph node biopsy is usually not done. Instead, a fine needle aspiration (FNA) biopsy or surgical biopsy of that lymph node is done to check for cancer cells.

## Complications and side effects of vulvar surgery

Removal of wide areas of vulvar skin often leads to problems with wound healing, wound infections, or failure of the skin graft to take. The more tissue removed, the greater the risk of these complications. Good hygiene and careful wound care are important.

The urine stream might go to one side because tissue on one or both sides of the urethral opening has been removed.

Other complications of vulvar and groin node surgery include formation of fluid-filled cysts near the surgical wounds, blood clots that may travel to the lungs, urinary infections, and reduction of sexual desire or pleasure.

After vulvar surgery, women often feel discomfort if they wear tight slacks or jeans because the "padding" around the urethral opening and vaginal entrance is gone. The area around the vagina also looks very different.

**Lymphedema:** Removal of groin lymph nodes (lymphadenectomy) can result in poor fluid drainage from the legs. This makes fluid build up and leads to leg swelling that is severe and doesn't go down at night. This is called [lymphedema](#)<sup>6</sup>. The risk of lymphedema is higher if radiation is given after surgery. Lymphedema can also cause pain and fatigue. This can also cause problems with sex and a couple will need to use good communication to cope with such problems. See [Sex and the Adult Female with Cancer](#)<sup>7</sup> for more on the sexual impact of cancer treatment.

**Sexual impact of vulvectomy:** Women often fear their partners will feel turned off by the scarring and loss of the outer genitals, especially during oral sex. Some women may be able to have surgery to rebuild the outer and inner lips of the genitals.



It may be difficult for women who have had a vulvectomy to reach orgasm. The outer genitals, especially the clitoris, are important in a woman's sexual pleasure. For many women, the vagina is just not as sensitive. Women may also notice numbness in their genital area after a radical vulvectomy, but feeling might return over the next few months as nerves slowly heal.

When touching the area around the vagina, and especially the urethra, a light caress and the use of a lubricant can help prevent painful irritation. If scar tissue narrows the entrance to the vagina, penetration may be painful. Vaginal dilators can sometimes help stretch the opening. When scarring is severe, the surgeon can sometimes use skin grafts to widen the entrance. Sometimes, a special type of physical therapy called **pelvic floor therapy** may help.

## More information about Surgery

For more general information about surgery as a treatment for cancer, see [Cancer Surgery](#)<sup>8</sup>.

To learn about some of the side effects listed here and how to manage them, see [Managing Cancer-related Side Effects](#)<sup>9</sup>.

## Hyperlinks

1. [www.cancer.org/cancer/vulvar-cancer/about/what-is-vulvar-cancer.html](http://www.cancer.org/cancer/vulvar-cancer/about/what-is-vulvar-cancer.html)
2. [www.cancer.org/treatment/treatments-and-side-effects/physical-side-effects/lymphedema.html](http://www.cancer.org/treatment/treatments-and-side-effects/physical-side-effects/lymphedema.html)
3. [www.cancer.org/treatment/treatments-and-side-effects/treatment-types/surgery/ostomies/urostomy.html](http://www.cancer.org/treatment/treatments-and-side-effects/treatment-types/surgery/ostomies/urostomy.html)
4. [www.cancer.org/treatment/treatments-and-side-effects/treatment-types/surgery/ostomies/colostomy.html](http://www.cancer.org/treatment/treatments-and-side-effects/treatment-types/surgery/ostomies/colostomy.html)
5. [www.cancer.org/treatment/understanding-your-diagnosis/lymph-nodes-and-cancer.html](http://www.cancer.org/treatment/understanding-your-diagnosis/lymph-nodes-and-cancer.html)
6. [www.cancer.org/treatment/treatments-and-side-effects/physical-side-effects/lymphedema.html](http://www.cancer.org/treatment/treatments-and-side-effects/physical-side-effects/lymphedema.html)
7. [www.cancer.org/treatment/treatments-and-side-effects/physical-side-effects/fertility-and-sexual-side-effects/sexuality-for-women-with-cancer.html](http://www.cancer.org/treatment/treatments-and-side-effects/physical-side-effects/fertility-and-sexual-side-effects/sexuality-for-women-with-cancer.html)
8. [www.cancer.org/treatment/treatments-and-side-effects/treatment-types/surgery.html](http://www.cancer.org/treatment/treatments-and-side-effects/treatment-types/surgery.html)
9. [www.cancer.org/treatment/treatments-and-side-effects/physical-side-effects.html](http://www.cancer.org/treatment/treatments-and-side-effects/physical-side-effects.html)

## References

Dellinger TH, Hakim AA, Lee SJ, et al. Surgical Management of Vulvar Cancer. *J Natl Compr Canc Netw*. 2017;15(1):121-128.

Gentileschi S, Servillo M, Garganese G, et al. Surgical therapy of vulvar cancer: how to choose the correct reconstruction? *J Gynecol Oncol*. 2016;27(6):e60.

National Comprehensive Cancer Network. NCCN Clinical Guidelines in Oncology (NCCN Guidelines). Vulvar Cancer (Squamous Cell Carcinoma) Version 1.2018 – October 27, 2017.

Rottmann M, Beck T, Burges A, et al. Trends in surgery and outcomes of squamous cell vulvar cancer patients over a 16-year period (1998-2013): a population-based analysis. *J Cancer Res Clin Oncol*. 2016;142(6):1331-1341.

See all references for Vulvar Cancer ([www.cancer.org/cancer/vulvar-cancer/references.html](http://www.cancer.org/cancer/vulvar-cancer/references.html))

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# Radiation Therapy for Vulvar Cancer

Radiation therapy uses high-energy rays (such as gamma rays or x-rays) and particles (such as electrons, protons, or neutrons) to kill cancer cells. When used to treat vulvar cancer, a large machine sends the radiation into the body in a procedure that's a lot like getting an x-ray. This is called **external beam radiation therapy or ERBT**.

## When is radiation used?

Radiation is most often used along with chemotherapy when treating vulvar cancer. You might hear this called **chemoradiation**.

It can be used to treat more advanced cancers. The goal is to shrink the tumor so it can be removed with surgery. Sometimes this allows the doctor to remove the cancer while causing less damage to healthy tissues.

Radiation can also be used after surgery to kill any cancer cells that might have been left behind.

Radiation alone may be used to treat [lymph nodes](#)<sup>1</sup> in the groin and pelvis.

It also may be used with or without chemo as the main treatment for women who are not well enough to have surgery.

## Types of external beam radiation therapy

There are ways to give EBRT so that the radiation is focused more precisely on the tumor. This let doctors give higher doses of radiation to the tumor while reducing the radiation exposure to nearby healthy tissues.

### Three-dimensional conformal radiation therapy (3D-CRT)

3D-CRT uses special computers to precisely map the location of the tumor. Radiation beams are then shaped and aimed at it from several directions, which makes it less likely to damage normal tissues.

### Intensity modulated radiation therapy (IMRT)

IMRT is an advanced form of 3D therapy. It uses a computer-driven machine that moves around the patient as it delivers radiation. Along with shaping the beams and aiming them at the tumor from several angles, the intensity (strength) of the beams can be adjusted to limit the doses reaching nearby normal tissues, like the bones, bowel, rectum, and bladder. This lets doctors deliver an even higher dose to the cancer.

## Side effects of radiation therapy

Common short-term [side effects](#)<sup>2</sup> of radiation therapy to the pelvis include:

- **Tiredness** can become severe a few weeks after treatment begins. Diarrhea, nausea, and vomiting from radiation can usually be controlled with medicines.
- **Skin changes** are common in the area the radiation passes through to reach the cancer. This can range from mild, temporary redness to blistering and permanent discoloration.
- Radiation can cause the vulvar area to become **sensitive and sore**. The skin may release fluid, which can lead to infection, so the area exposed to radiation must be

carefully cleaned and protected.

- Radiation can also lead to **low blood counts**, causing anemia (low red blood cells) and neutropenia (low white blood cells). Low red blood cell counts can lead to feeling tired and short of breath. Low white blood cells can increase the risk of serious infection. The blood counts usually return to normal over time after radiation is stopped.
- Women who receive radiation to the inguinal (groin) area after a lymph node dissection may have **problems with the surgical wound site**. It may open up or have trouble healing.
- Radiation to the lymph nodes can lead to poor fluid drainage from the legs. The fluid can build up and lead to severe leg swelling that doesn't go down at night. This is called **lymphedema**. Information about lymphedema and how to manage it can be found in [Lymphedema](#)<sup>3</sup>.

These side effects tend to be worse when chemotherapy is given with radiation. If you have side effects from radiation, tell your cancer care team. There are often ways to relieve them.

## More information about radiation therapy

To learn more about how radiation is used to treat cancer, see [Radiation Therapy](#)<sup>4</sup>.

To learn about some of the side effects listed here and how to manage them, see [Managing Cancer-related Side Effects](#)<sup>5</sup>.

## Hyperlinks

1. [www.cancer.org/treatment/understanding-your-diagnosis/lymph-nodes-and-cancer.html](http://www.cancer.org/treatment/understanding-your-diagnosis/lymph-nodes-and-cancer.html)
2. [www.cancer.org/treatment/treatments-and-side-effects/physical-side-effects.html](http://www.cancer.org/treatment/treatments-and-side-effects/physical-side-effects.html)
3. [www.cancer.org/treatment/treatments-and-side-effects/physical-side-effects/lymphedema.html](http://www.cancer.org/treatment/treatments-and-side-effects/physical-side-effects/lymphedema.html)
4. [www.cancer.org/treatment/treatments-and-side-effects/treatment-types/radiation.html](http://www.cancer.org/treatment/treatments-and-side-effects/treatment-types/radiation.html)
5. [www.cancer.org/treatment/treatments-and-side-effects/physical-side-effects.html](http://www.cancer.org/treatment/treatments-and-side-effects/physical-side-effects.html)

## References

Forner DM, Mallmann P. Neoadjuvant and definitive chemotherapy or chemoradiation for stage III and IV vulvar cancer: A pooled Reanalysis. *Eur J Obstet Gynecol Reprod Biol.* 2017;212:115-118.

Martinez-Castro P, Poveda A, Guinot JL, Minig L. Treatment of Inoperable Vulvar Cancer: Where We Come From and Where Are We Going. *Int J Gynecol Cancer.* 2016;26(9):1694-1698.

National Cancer Institute. Vulvar Cancer Treatment (PDQ®)—Patient Version. October 13, 2017. Accessed at [www.cancer.gov/types/vulvar/patient/vulvar-treatment-pdq#section/\\_90](http://www.cancer.gov/types/vulvar/patient/vulvar-treatment-pdq#section/_90) on January 4, 2018.

National Comprehensive Cancer network. NCCN Clinical Guidelines in Oncology (NCCN Guidelines). Vulvar Cancer (Squamous Cell Carcinoma) Version 1.2018 – October 27, 2017.

Rao YJ, Chin RI, Hui C, et al. Improved survival with definitive chemoradiation compared to definitive radiation alone in squamous cell carcinoma of the vulva: A review of the National Cancer Database. *Gynecol Oncol.* 2017;146(3):572-579.

Rao YJ, Chundury A, Schwarz JK, et al. Intensity modulated radiation therapy for squamous cell carcinoma of the vulva: Treatment technique and outcomes. *Adv Radiat Oncol.* 2017;2(2):148-158.

See all references for Vulvar Cancer ([www.cancer.org/cancer/vulvar-cancer/references.html](http://www.cancer.org/cancer/vulvar-cancer/references.html))

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## Chemotherapy for Vulvar Cancer

Chemotherapy (chemo) uses anti-cancer drugs that are usually given intravenously (IV or into a vein), by mouth, or applied to the skin in other ways, such as in an ointment. Drugs taken by mouth or injected into a vein, called **systemic chemo**, enter the bloodstream and go throughout the body, making this treatment potentially useful for cancer that has spread beyond the vulva.

The role of chemo in treating vulvar cancer is not clear. There are no standard chemo treatment plans.

In more advanced disease, chemo might be given with radiation therapy before surgery. Chemotherapy helps the radiation work better, and this may shrink the tumor so it's easier to remove with surgery.

At this time, chemo is most often used for vulvar cancers that have spread or have come back after surgery. But so far, the results of using chemo to treat vulvar cancers that have spread to other organs have been disappointing.

## Common chemo drugs used for vulvar cancer

Drugs most often used in treating vulvar cancer include cisplatin with or without fluorouracil (5-FU). Another chemo drug, mitomycin, is less commonly used. These are often given at the same time as radiation therapy. (You may hear this called **chemoradiation**.)

More advanced vulvar cancers may be treated with one or more of these drugs:

- Cisplatin
- Carboplatin
- Vinorelbine
- Paclitaxel
- Erlotinib

Different drugs are used to treat vulvar melanoma. [Melanoma Skin Cancer](#)<sup>1</sup> has more information on drug treatment for advanced melanomas.

## Chemo side effects

Many of the chemo drugs used work by attacking cells that are rapidly dividing. This is helpful in killing cancer cells, but these drugs can also affect normal cells, leading to side effects. [Side effects](#)<sup>2</sup> of chemo depend on the type of drugs, the amount taken, and the length of time you are treated. Common side effects of some of the drugs used to treat vulvar cancer include:

- Nausea and vomiting
- Loss of hair

- Mouth or vaginal sores
- Changes in the menstrual cycle, premature menopause, and infertility (inability to become pregnant). But most women with vulvar cancer have already gone through menopause.
- Diarrhea

Chemo often affects the blood-forming cells of the bone marrow, leading to low blood counts. This can cause:

- Increased chance of infections (low white blood cell count)
- Increased chance of bleeding and bruising ( low blood platelet count)
- Tiredness (from anemia, which is a low red blood cell count)

Other side effects depend on what drug is used. Most side effects are short-term and stop when the treatment is over, but some chemo drugs can have long-lasting or even permanent effects. For instance, cisplatin can cause nerve damage (called neuropathy). This can lead to numbness, tingling, or even pain in the hands and feet. Cisplatin can also damage the kidneys. To lower the risk of kidney damage, plenty of fluids are given intravenously (IV) before and after each dose.

Ask your cancer care team about the chemo drugs you'll get and what side effects you can expect. Also be sure to talk with them about any side effects you do have so that they can be treated. For example, you can be given medicine to reduce or prevent nausea and vomiting.

## More information about chemotherapy

For more general information about how chemotherapy is used to treat cancer, see [Chemotherapy](#)<sup>3</sup>.

To learn about some of the side effects listed here and how to manage them, see [Managing Cancer-related Side Effects](#)<sup>4</sup>.

## Hyperlinks

1. [www.cancer.org/cancer/melanoma-skin-cancer.html](http://www.cancer.org/cancer/melanoma-skin-cancer.html)
2. [www.cancer.org/treatment/treatments-and-side-effects/physical-side-effects.html](http://www.cancer.org/treatment/treatments-and-side-effects/physical-side-effects.html)
3. [www.cancer.org/treatment/treatments-and-side-effects/treatment-types/chemotherapy.html](http://www.cancer.org/treatment/treatments-and-side-effects/treatment-types/chemotherapy.html)

4. [www.cancer.org/treatment/treatments-and-side-effects/physical-side-effects.html](http://www.cancer.org/treatment/treatments-and-side-effects/physical-side-effects.html)

## References

Forner DM, Mallmann P. Neoadjuvant and definitive chemotherapy or chemoradiation for stage III and IV vulvar cancer: A pooled Reanalysis. *Eur J Obstet Gynecol Reprod Biol.* 2017;212:115-118.

Martinez-Castro P, Poveda A, Guinot JL, Minig L. Treatment of Inoperable Vulvar Cancer: Where We Come From and Where Are We Going. *Int J Gynecol Cancer.* 2016;26(9):1694-1698.

National Comprehensive Cancer network. NCCN Clinical Guidelines in Oncology (NCCN Guidelines). Vulvar Cancer (Squamous Cell Carcinoma) Version 1.2018 – October 27, 2017.

Soderini A, Aragona A, Reed N. Advanced Vulvar Cancers: What are the Best Options for Treatment? *Curr Oncol Rep.* 2016;18(10):64.

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# Topical Therapy for Vulvar Pre-Cancer

Topical therapy means the drug is a cream or ointment put right onto the cancer. This is a way to treat [vulvar intraepithelial neoplasia](#)<sup>1</sup> (VIN), but it's not used to treat invasive vulvar cancer. Topical chemotherapy for VIN does not work as well as [laser treatment](#)<sup>2</sup> or surgery.

One choice is to apply the chemotherapy drug, fluorouracil (5-FU), directly to the skin of the vulva. This is called **topical chemotherapy**. Chemotherapy applied directly to the skin as an ointment will cause local irritation and peeling. This is normal and is part of the local destruction of cancer cells. Other medicated ointments suggested by your health care team can help relieve the discomfort of this treatment.

A second drug that can be used topically is called imiquimod. This drug comes as a cream to be applied to the area of VIN. Imiquimod is not a chemotherapy drug. Instead,



it works by boosting the body's immune response to the area of abnormal tissue. This treatment has improved VIN, and in some women, it has made VIN go away completely. It can cause irritation and pain in the treated area.

## Hyperlinks

1. [www.cancer.org/cancer/vulvar-cancer/about/what-is-vulvar-cancer.html](http://www.cancer.org/cancer/vulvar-cancer/about/what-is-vulvar-cancer.html)
2. [www.cancer.org/treatment/treatments-and-side-effects/treatment-types/lasers-in-cancer-treatment.html](http://www.cancer.org/treatment/treatments-and-side-effects/treatment-types/lasers-in-cancer-treatment.html)

## References

American College of Obstetricians and Gynecologists' Committee on Gynecologic Practice; American Society for Colposcopy and Cervical Pathology (ASCCP). Committee Opinion No.675: Management of Vulvar Intraepithelial Neoplasia. *Obstet Gynecol.* 2016;128(4):e178-182.

Grimes C, Cunningham C, Lee M, Murina A. Use of topical imiquimod in the treatment of VIN: a case report and review of the literature. *Int J Womens Dermatol.* 2016;2(1):35-38.

See all references for Vulvar Cancer ([www.cancer.org/cancer/vulvar-cancer/references.html](http://www.cancer.org/cancer/vulvar-cancer/references.html))

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# Treatment of Squamous Cell Vulvar Cancer

The [stage of a vulvar cancer](#)<sup>1</sup> is the most important factor in choosing treatment. Other factors that affect this decision include the exact location of the cancer on the vulva, the [type of vulvar cancer](#)<sup>2</sup>, your age, your preferences, and your overall health.

Because vulvar cancer is rare, it's hard to study it well. Most experts agree that

treatment in a [clinical trial](#)<sup>3</sup> should be considered. This way women can get the best treatment available now and may also get the treatments that are thought to be even better.

## Stage 0 (carcinoma in situ)

Treatment options for carcinoma in situ and for small pre-cancerous changes ([vulvar intraepithelial neoplasia](#)<sup>4</sup>, or VIN) are the same. If left untreated, nearly all will progress to invasive vulvar cancer. [Surgery](#), such as laser surgery, wide local excision, or a skinning vulvectomy may be used, depending on the size and location of the cancer. A [topical therapy](#) such as fluorouracil (5-FU) ointment or imiquimod cream may be applied to the abnormal areas. Even if treated, stage 0 cancers may recur (come back) or new stage 0 cancers may form on other areas of the vulva, so good follow-up care is important.

## Stage I

Treatment options depend on the size and depth of the cancer and whether the patient also has VIN. If the depth of invasion is 1 mm or less (stage IA) and there are no other areas of cancer or VIN, the cancer is surgically removed along with a 1 cm (less than half an inch) rim (margin) of normal tissue around it.

For stage IB cancers, treatment may include a partial radical vulvectomy and inguinal lymph node dissection (removal of nearby groin lymph nodes). Sentinel lymph node biopsy may be done instead of the lymph node dissection. If cancer is found in the lymph nodes, radiation with chemotherapy may be given.

Another option rarely used for cancers that are larger and quite extensive is a complete radical vulvectomy and removal of the groin lymph nodes.

If the lymph nodes are not removed because the patient is not healthy enough to have the surgery, radiation therapy may be given to the groin areas. If the lymph nodes are enlarged, a [needle biopsy](#)<sup>5</sup> may be done before treatment to see if the nodes contain cancer cells.

Patients who are not healthy enough to have any surgery may be treated with just radiation therapy alone.

## Stage II

Stage II cancers have spread to structures near the vulva, such as the anus, the lower vagina, and/or the lower urethra. One option for treatment is partial radical vulvectomy (removal of the tumor, nearby parts of the vulva, and other tissues containing cancer). Surgery may also include removal of the lymph nodes in the groin on both sides of the body (or sentinel node biopsies). Radiation therapy may be given after surgery if cancer cells are at or near the margins (edges of the tissue removed by surgery).

For women who are too sick or weak from other medical problems to have surgery, radiation (with or without chemotherapy) may be used as the main treatment.

### Stage III

Stage III cancers have spread to nearby lymph nodes. Treatment may include surgery to remove the cancer (either a radical wide local incision or partial or complete radical vulvectomy) and lymph nodes in the groin. This may be followed by [radiation therapy](#). Sometimes [chemotherapy](#) (chemo) is given along with the radiation to help it work better.

These cancers may also be treated with radiation (with or without chemo) first, followed by surgery to remove any remaining cancer. This is often done to try to preserve normal structures such as the vagina, urethra and anus.

Radiation and chemo (without surgery) may be used as the main treatment for patients who cannot have surgery due to other medical problems.

### Stage IVA

These cancers have spread more extensively to organs and tissues in the pelvis, such as the rectum (above the anus), the bladder, the pelvic bone, the upper part of the vagina, and the upper part of the urethra. When treated with surgery, the goal is to remove as much of the cancer as possible. The extent of the surgery depends on what organs contain cancer cells. Pelvic exenteration is an option, but it's rarely used.

The standard approach is to combine surgery, radiation, and chemo. Radiation therapy may be done before or after surgery. Chemo may also be given before surgery.

Radiation and possibly chemo can also be given to women who can't have surgery because of other medical problems.

Stage IVA also includes tumors with less spread to nearby organs, but spread to nearby

lymph nodes that has caused the lymph nodes to become fixed (stuck to the underlying tissue) or ulcerated (become open sores). These cancers are often treated with radical vulvectomy and removal of the groin lymph nodes. Radiation (often with chemo) may be given either before or after surgery.

## Stage IVB

These cancers have spread to lymph nodes in the pelvis or to organs and tissues outside the pelvis (like the lungs or liver). There is no standard treatment for them. Surgery is not expected to cure these cancers, but may be helpful in relieving symptoms, such as bowel or bladder blockages. Radiation may also be helpful in shrinking the cancer and improving symptoms. Chemo may also be an option. Experts recommend that these women enroll in a [clinical trial](#)<sup>6</sup>.

## Recurrent vulvar cancer

When cancer comes back after treatment, it's called **recurrent cancer**. Treatment options depend on how soon the cancer comes back and whether the recurrence is local (in the vulva), regional (in nearby lymph nodes), or distant (has spread to organs such as the lungs or bones).

If the recurrence is local, it may still be possible to remove the cancer by surgery or by using combinations of chemo, radiation therapy, and surgery.

When the cancer has grown too large or spread too far to be surgically removed (it's unresectable), chemo and/or radiation therapy may be used to help relieve symptoms such as pain, or to shrink the tumor so that surgery may become an option. If treatment is given only to relieve pain or bleeding, it's called [palliative \(symptom relief\) therapy](#)<sup>7</sup>.

It's very important to understand that palliative treatment is not expected to cure a cancer. Women with advanced vulvar cancer are encouraged to enter a [clinical trial](#)<sup>8</sup> where they may get new treatments that might be helpful but are as yet unproven.

## Hyperlinks

1. [www.cancer.org/cancer/vulvar-cancer/detection-diagnosis-staging/staging.html](http://www.cancer.org/cancer/vulvar-cancer/detection-diagnosis-staging/staging.html)
2. [www.cancer.org/cancer/vulvar-cancer/about/what-is-vulvar-cancer.html](http://www.cancer.org/cancer/vulvar-cancer/about/what-is-vulvar-cancer.html)
3. [www.cancer.org/treatment/treatments-and-side-effects/clinical-trials.html](http://www.cancer.org/treatment/treatments-and-side-effects/clinical-trials.html)
4. [www.cancer.org/cancer/vulvar-cancer/about/what-is-vulvar-cancer.html](http://www.cancer.org/cancer/vulvar-cancer/about/what-is-vulvar-cancer.html)
5. [www.cancer.org/treatment/understanding-your-diagnosis/tests/testing-biopsy-and-](http://www.cancer.org/treatment/understanding-your-diagnosis/tests/testing-biopsy-and-)

[cytology-specimens-for-cancer/biopsy-types.html](#)

6. [www.cancer.org/treatment/treatments-and-side-effects/clinical-trials.html](http://www.cancer.org/treatment/treatments-and-side-effects/clinical-trials.html)
7. [www.cancer.org/treatment/treatments-and-side-effects/palliative-care.html](http://www.cancer.org/treatment/treatments-and-side-effects/palliative-care.html)
8. [www.cancer.org/treatment/treatments-and-side-effects/clinical-trials.html](http://www.cancer.org/treatment/treatments-and-side-effects/clinical-trials.html)

## References

Forner DM, Mallmann P. Neoadjuvant and definitive chemotherapy or chemoradiation for stage III and IV vulvar cancer: A pooled Reanalysis. *Eur J Obstet Gynecol Reprod Biol.* 2017;212:115-118.

National Cancer Institute. Vulvar Cancer Treatment (PDQ®)—Patient Version. October 13, 2017. Accessed at [www.cancer.gov/types/vulvar/patient/vulvar-treatment-pdq#section/\\_90](http://www.cancer.gov/types/vulvar/patient/vulvar-treatment-pdq#section/_90) on January 5, 2018.

National Comprehensive Cancer network. NCCN Clinical Guidelines in Oncology (NCCN Guidelines). Vulvar Cancer (Squamous Cell Carcinoma) Version 1.2018 – October 27, 2017.

Oonk MH, Planchamp F, Baldwin P, et al. European Society of Gynaecological Oncology Guidelines for the Management of Patients With Vulvar Cancer. *Int J Gynecol Cancer.* 2017;27(4):832-837.

Soderini A, Aragona A, Reed N. Advanced Vulvar Cancers: What are the Best Options for Treatment? *Curr Oncol Rep.* 2016;18(10):64.

See all references for Vulvar Cancer ([www.cancer.org/cancer/vulvar-cancer/references.html](http://www.cancer.org/cancer/vulvar-cancer/references.html))

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# Treatment of Vulvar Adenocarcinoma

If [Paget's disease](#)<sup>1</sup> is present and there's no [invasive adenocarcinoma](#)<sup>2</sup>, treatment is wide local excision or simple vulvectomy (see [Surgery for Vulvar Cancer](#) for details).

If an [invasive adenocarcinoma](#)<sup>3</sup> of a Bartholin gland or of vulvar skin sweat glands is present, a partial radical vulvectomy is recommended with removal of inguinal (groin) [lymph nodes](#)<sup>4</sup> on one or both sides of the body, depending on the location of the primary tumor.

Advanced vulvar adenocarcinoma is often treated with chemotherapy or radiation.

## Hyperlinks

1. [www.cancer.org/cancer/vulvar-cancer/about/what-is-vulvar-cancer.html](http://www.cancer.org/cancer/vulvar-cancer/about/what-is-vulvar-cancer.html)
2. [www.cancer.org/cancer/vulvar-cancer/about/what-is-vulvar-cancer.html](http://www.cancer.org/cancer/vulvar-cancer/about/what-is-vulvar-cancer.html)
3. [www.cancer.org/cancer/vulvar-cancer/about/what-is-vulvar-cancer.html](http://www.cancer.org/cancer/vulvar-cancer/about/what-is-vulvar-cancer.html)
4. [www.cancer.org/treatment/understanding-your-diagnosis/lymph-nodes-and-cancer.html](http://www.cancer.org/treatment/understanding-your-diagnosis/lymph-nodes-and-cancer.html)

## References

See all references for Vulvar Cancer ([www.cancer.org/cancer/vulvar-cancer/references.html](http://www.cancer.org/cancer/vulvar-cancer/references.html))

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# Treatment of Vulvar Melanoma

Vulvar melanoma starts on the skin of the vulva. [A partial vulvectomy](#) (surgery to remove the tumor and a rim of healthy tissue around it), along with [lymph node removal](#) is the usual treatment for melanoma on the vulva. In some cases, [radiation therapy](#), [chemotherapy](#), and/or [immunotherapy](#)<sup>1</sup> may also be used. These decisions are made on a case-by-case basis.

Treatment options depend on:

- How deep the melanoma is
- Where it is on the skin of the vulva
- Whether it's ulcerated (an open sore)
- Spread to lymph nodes

The cancer stage and the woman's age and personal preferences are also key.

If the melanoma has spread outside the vulva, other treatments may be needed. More on treatment of vulvar melanoma can be found in [Melanoma Skin Cancer](#)<sup>2</sup>.

## Hyperlinks

1. [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)
2. [www.cancer.org/cancer/melanoma-skin-cancer/treating.html](http://www.cancer.org/cancer/melanoma-skin-cancer/treating.html)

## References

Campaner AB, Fernandes GL, Cardoso FA, Veasey JV. Vulvar melanoma: relevant aspects in therapeutic management. *An Bras Dermatol*. 2017;92(3):398-400.

Saito T, Tabata T, Ikushima H, et al. Japan Society of Gynecologic Oncology guidelines 2015 for the treatment of vulvar cancer and vaginal cancer. *Int J Clin Oncol*. 2017 Nov 20.

See all references for Vulvar Cancer ([www.cancer.org/cancer/vulvar-cancer/references.html](http://www.cancer.org/cancer/vulvar-cancer/references.html))

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