Treating Vulvar Cancer

General treatment information

After the stage of your vulvar cancer has been established, your cancer care team will recommend a treatment strategy. Think about your options without feeling rushed. If there is anything you do not understand, ask to have it explained again.

The choice of treatment depends largely on the stage of the disease at the time of diagnosis, but other factors can play a part in choosing the best treatment plan, such as your age, your general health, your individual circumstances, and your preferences. Be sure you understand all the risks and side effects of the various therapies before making a decision.

You may want to get a second opinion. This can provide more information and help you feel confident about the treatment plan you choose. Some insurance companies require a second opinion before they will pay for treatments.

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.
The 3 main types of treatment used for patients with vulvar cancer are

- Surgery
- Radiation therapy
- Chemotherapy

Vulvar pre-cancers (vulvar intraepithelial neoplasia or VIN) can also be treated with topical therapy.

For information about some of the most common approaches used based on the type of vulvar cancer, see Treatment Options for Squamous Cell Vulvar Cancer by Stage, Treatment of Vulvar Adenocarcinoma, and Treatment of Vulvar Melanoma.

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 are 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. You can also call our clinical trials matching service at 1-800-303-5691 for a list of studies that meet your medical needs, or see the Clinical Trials section on our website to learn more.

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 dangerous.

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. See the Complementary and Alternative
Help getting through cancer treatment

Your cancer care team will be your first source of information and support, but there are other resources for help when you need it. Hospital- or clinic-based support services are 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, support groups, 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 on call 24 hours a day, every day.

It is important to discuss all of your treatment options, including their goals and possible side effects, with your doctors to help make the decision that best fits your needs. It’s also very important to ask questions if there is anything you’re not sure about. You can find some good questions to ask in What Should You Ask Your Doctor About Vulvar Cancer?

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 Vulvar Cancer

Choosing the best surgical treatment for each woman means balancing the importance of maintaining sexual functioning with the need to remove all the cancer. In the past, surgeons removing a vulvar cancer also took out a large amount of surrounding normal tissue and often nearby lymph nodes as well, regardless of the stage of the cancer. They did this because they wanted to be sure that no undetected cancer cells remained. Such extensive surgery resulted in a good chance of cure, but it was deforming and impaired the woman’s sexual function if the clitoris had been removed. The removal of all the lymph nodes in the groin often led to disabling swelling of the leg (lymphedema)
on that side.

Today, the importance of quality of life and sexuality is well recognized. It has also been established that, when cancer is detected early, it is not necessary to remove so much surrounding healthy tissue to achieve a cure. In addition, the sentinel node biopsy procedure is an alternative to removing many lymph nodes if the cancer has not spread (this is discussed further on). When cancer is more advanced, an extensive procedure may be necessary. Radiation can be combined with chemotherapy and surgery to kill more cancer cells in advanced cancers.

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

**Laser surgery**

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

**Excision**

The cancer and a margin of normal-appearing skin (usually about ½ inch) around 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* means only the top layer of skin affected by the cancer is removed. Although this is an option for treating extensive VIN, this operation is rarely done.
- In a *simple vulvectomy*, the entire vulva is removed.
- A *radical vulvectomy* can be complete or partial. When part of the vulva, including the deep tissue, is removed, the operation is called a *partial radical vulvectomy*. In a *complete radical vulvectomy*, the entire vulva and deep tissues, including the clitoris, are removed. A complete radical vulvectomy is not often needed.

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. However, most of the time the
surgical wounds resulting from these procedures can be closed without grafts and still provide a very satisfactory appearance. If a skin graft is required, the gynecologic oncologist may do it. Otherwise, it may be done by a plastic/reconstructive surgeon after the gynecologic oncologist has done the vulvectomy.

Reconstructive surgery is available for women who have had more extensive surgery. A reconstructive surgeon will 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 is 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 are having this procedure, ask the surgeon to explain how it will be done, because there is 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.

If the bladder is removed, a new way to store and eliminate urine is needed. Usually a short segment of intestine is used to function as a new bladder. This may be connected to the abdominal wall so that urine is drained periodically when the woman places a catheter into a small opening (called a urostomy). Or urine may drain continuously into a small plastic bag attached to the front of the abdomen 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 fecal material can pass through a small opening (called a colostomy) 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, the woman will not need bags or external appliances.

**Inguinal lymph node dissection**

Because vulvar cancer often spreads to lymph nodes in the groin, these may need to be removed. This procedure 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. Now, doctors prefer to remove the lymph nodes through a separate incision located about 1 to 2 cm (less than ½ to 1 inch) below and parallel to the groin crease. The incision is made fairly deep, down through membranes that cover the major inguinal vein and artery. This will expose most of the lymph nodes, which are then removed. 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 suction drain is placed into the incision and the wound is closed. The drain remains in place until it is not draining much fluid.

**Sentinel lymph node biopsy**

This is a newer procedure that can help some women avoid having a full inguinal node dissection. This procedure finds and removes 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 remaining lymph nodes in this area need to be removed. If the sentinel nodes do not contain cancer cells, further lymph node surgery is not 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 is 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 that 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, 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 spread.

**Complications and side effects of vulvar surgery**

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.
Removal of wide areas of vulvar skin may result in 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.

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.

**Lymphedema:** Removal of groin lymph nodes (lymphadenectomy) can result in poor fluid drainage from the legs. This makes the fluid build up and leads to leg swelling that is severe and doesn't go down at night. This is called *lymphedema*. The risk of this is higher if radiation is given after surgery. Information about lymphedema and how to manage it can be found in *Lymphedema*.

**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 may return over the next few months.

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.

Lymphedema resulting from removal of lymph nodes in the groin area can cause pain and fatigue. This also can be a problem during sex. A couple will need to use good communication to cope with such problems.

For more information about the sexual impact of cancer treatment, see *Sexuality for the Woman With Cancer*. For more general information about surgery as a cancer treatment, see *Cancer Surgery*.

- References
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. In treating vulvar cancers, radiation is delivered from outside the body in a procedure that is much like having a diagnostic x-ray. This is called external beam radiation therapy. It is sometimes used along with chemotherapy to treat more advanced cancers to shrink them so they can be removed with surgery. This can sometimes allow the cancer to be removed with a less extensive surgery. Radiation alone may be used to treat lymph nodes in the groin and pelvis.

Common temporary side effects of radiation therapy to the pelvis include

- Tiredness
- Upset stomach, nausea, and vomiting
- Loose bowels or diarrhea
- Skin changes
- Low blood counts

These side effects tend to be worse when chemotherapy is given with radiation.

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 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 leukopenia (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 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.

If you have side effects from radiation, tell your cancer care team. There are often ways to relieve them.

For more information about radiation as a treatment for cancer, see A Guide to Radiation Therapy.

- References
See all references for Vulvar Cancer

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Chemotherapy for Vulvar Cancer

Chemotherapy (chemo) uses anti-cancer drugs that are usually given intravenously (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 reach throughout the body, making this treatment potentially useful for cancer that has spread to distant sites.

Drugs most often used in treating vulvar cancer include cisplatin with or without fluorouracil (5-FU). Another chemo drug, mitomycin, may rarely be used. These may be combined with radiation. Different drugs are used to treat vulvar melanoma. [Melanoma Skin Cancer](#) has more information about drug treatment for advanced melanomas.
The role of chemo in treating vulvar cancer remains to be determined. In more advanced disease, chemo might be given with radiation therapy before surgery. This combined treatment may shrink the tumor, making it easier to remove it with surgery. So far, the results of treating vulvar cancers that have spread to other organs with chemo have been disappointing.

Many of the drugs used in cancer chemo 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 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
- Temporary loss of hair
- Mouth or vaginal sores
- Changes in the menstrual cycle, premature menopause, and infertility (inability to become pregnant). Most women with vulvar cancer, however, 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 (due to low white blood cell count)
- Increased chance of bleeding and bruisesing (due to low blood platelet count)
- Tiredness (due to anemia, that is, low red blood cell count)

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

Ask your cancer care team about the chemo drugs you will receive 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.

For more information about chemo and its side effects, see Chemotherapy.

- References
Topical Therapy for Vulvar Pre-Cancer

Topical therapy applies the drug directly onto the cancer. This is another way to treat vulvar intraepithelial neoplasia (VIN), but is not used to treat invasive vulvar cancer.

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. Medicated ointments suggested by the health care team can help relieve the discomfort of this treatment. Topical chemotherapy for VIN is less effective than laser treatment or surgery.

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

- References

See all references for Vulvar Cancer

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The **stage of a vulvar cancer** is the most important factor in choosing treatment. However, other factors that affect this decision include the exact location of the cancer on the vulva, the **type of cancer**, your age, and your overall health.

### Stage 0 (carcinoma in situ)

Treatment options for carcinoma in situ and for less advanced pre-cancerous changes (vulvar intraepithelial neoplasia, 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 is important. The 5-year survival rate is nearly 100%, similar to pre-invasive skin cancers in other body sites.

### 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) margin of the 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.

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 withstand the surgery, **radiation therapy** may be given to the groin areas. If the lymph nodes are enlarged, a needle biopsy 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 radiation therapy alone.

### Stage II
Stage II cancers have spread to structures near the vulva, such as the anus, the lower third of the vagina, and/or the lower third of the 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 to the area of surgery may be needed 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) with 5-FU or cisplatin (sometimes with mitomycin) 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 underlying 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 beyond a radical vulvectomy depends on what organs contain cancer cells. Pelvic exenteration is an option, although it is used rarely. This operation includes vulvectomy and removal of the pelvic lymph nodes plus removal of some of the following: the lower colon, rectum, bladder, uterus, cervix, and vagina.

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 cannot have surgery.
because of prior medical problems.

Stage IVA also includes T1 and T2 tumors with less severe nearby spread but extensive 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). Surgery is not expected to cure these cancers, but may be helpful in relieving symptoms of bowel or bladder blockages. Radiation may also be helpful in shrinking the cancer and improving symptoms. Chemo may also be an option, as is enrolling in a clinical trial.

**Recurrent vulvar cancer**

When cancer comes back after treatment, it is called *recurrent cancer*. Treatment options will 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. Vulvar cancer that comes back locally more than 2 years after the initial treatment has a better prognosis (outlook) than cancers that recur sooner.

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

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 where they may receive new forms of therapy that may be helpful but are as yet unproven.

- References
Treatment of Vulvar Adenocarcinoma

If Paget’s disease is present and there is no associated invasive carcinoma, treatment is wide local excision or simple vulvectomy (see Surgery for Vulvar Cancer). If an invasive adenocarcinoma 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 on one or both sides of the body, depending on the site of the primary tumor.

Advanced vulvar adenocarcinoma is often treated with chemotherapy or radiation.

References

See all references for Vulvar Cancer

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Treatment of Vulvar Melanoma

Treatment options depend on how deeply the melanoma has grown into the skin of the vulva. If the depth is less than 0.75 millimeter, partial vulvectomy removing 1 to 2 cm (up to about ¾ inch) of normal tissue (margins) is the usual treatment (see Surgery for Vulvar Cancer). If the cancer has grown in deeper, more tissue may need to be removed. Radical vulvectomy may rarely be used when the lesion extensively involves the vulva.

Often, lymph nodes in the groin will be sampled or a sentinel node biopsy procedure will
be done to fully stage the cancer. The stage helps predict the outlook for survival and is needed to decide if other treatment is needed.

If the melanoma has spread outside the vulva, other treatments may be needed. These are discussed in Melanoma Skin Cancer.

More treatment information about vulvar cancer

For more details on treatment options -- including some that may not be addressed in this document -- the National Cancer Institute (NCI) can be a good source of information.

- References
  See all references for Vulvar Cancer

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