Treating Vaginal Cancer

General treatment information

After the diagnostic tests are done, your cancer care team will recommend a treatment plan. Don’t feel rushed about considering your options. If there’s anything you do not understand, ask to have it explained again. The choice of treatment depends on the type of cancer and stage of the disease when it is diagnosed.

Other factors might play a part in choosing the best treatment plan. These could include your age, your overall state of health, whether you plan to have children, and other personal considerations. Vaginal cancer can affect your sex life and your ability to have children. These concerns should also be considered as you make treatment decisions. (See Sexuality for the Woman With Cancer and Fertility and Women With Cancer to learn more about these issues.) Be sure you understand all the risks and side effects of the various therapies before making a decision about treatment.

You might 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 vaginal 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 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.

Some treatments are only used to treat pre-cancers of the vagina (vaginal intraepithelial neoplasia, VAIN), such as:

- Laser surgery (vaporization)
- Topical treatments

For invasive vaginal cancer, there are 3 main treatments:

- Radiation therapy
- Surgery
- Chemotherapy

Invasive vaginal cancer is treated mainly with radiation therapy and surgery. Chemotherapy in combination with radiation might be used to treat advanced disease.

**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. See [Clinical Trials](#) 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 Medicine section of our website to learn more.

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, 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.

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.

Whenever possible, treatment is given with the goal of completely removing or destroying the cancer. If a cure is not possible, removing or destroying much of the cancer in order to prevent the tumor from growing, spreading, or returning for as long as possible is important. If the cancer has spread widely, the main goal of treatment is palliation (relieving pain, blockage of the urinary or intestinal system, or other symptoms).

Laser Surgery for Vaginal Pre-Cancer

In this treatment, a beam of high-energy light is used to vaporize the abnormal tissue. This is a very effective treatment for vaginal pre-cancer (vaginal intraepithelial neoplasia or VAIN), and works well for large lesions. However, this is not a treatment for invasive cancer. For laser surgery to be an option, the doctor must be certain that the worst lesion was biopsied and that invasive cancer is not a concern.
For more information on laser surgery, see Lasers in Cancer Treatment.

- References
See all references for Vaginal Cancer

Topical Therapy for Vaginal Pre-Cancer

Topical therapy puts the drug directly onto the cancer. This is another way to treat vaginal pre-cancer (vaginal intraepithelial neoplasia or VAIN), but is not used to treat invasive vaginal cancer.

One choice is to apply the chemotherapy drug, fluorouracil (5-FU), directly to the lining of the vagina. This is repeated weekly for about 10 weeks or given nightly for 1 to 2 weeks. This treatment has drawbacks. It can cause severe vaginal and vulvar irritation. Also, it may not work as well using the laser or simply removing the lesion with 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 VAIN. 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 led to improvement of VAIN (the lesions changed from VAIN 2 or 3 to VAIN 1). In some women, it has caused VAIN to go away completely.

- References
See all references for Vaginal Cancer

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Radiation Therapy for Vaginal Cancer

This is the most common treatment for vaginal 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 vaginal 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. Radiation alone may be used to treat lymph nodes in the groin and pelvis.

Another way to deliver radiation is to place radioactive material inside the vagina. One way to do this is called *intracavitary brachytherapy*. The 2 main types of intracavitary brachytherapy are *low-dose rate* (LDR) and *high-dose rate* (HDR). With these intracavitary methods, radiation mainly affects the tissue in contact with the cylinder. This often means fewer bladder and bowel side effects than seen with external beam radiation therapy.

- For LDR brachytherapy, the radioactive material is inside a cylindrical container that is placed in the vagina and stays in place for a day or 2. Although gauze packing helps hold the cylinder in place, you have to remain in bed (in the hospital) during the treatment.
- With HDR brachytherapy, the radiation source is still placed in a cylinder, but it doesn’t need to stay in place for long. This allows it to be given in an outpatient setting. Three or four treatments are given 1 or 2 weeks apart.

Another type of brachytherapy, called *interstitial radiation*, uses radioactive material inside needles that are placed directly into the cancer and surrounding tissues.

Vaginal cancer is most often treated with a combination of external and internal radiation with or without low doses of chemotherapy.

**Side effects of radiation therapy**

Radiation can destroy nearby healthy tissue along with the cancerous cells. Side effects depend on the area being treated, the amount of radiation, and the way the radiation is given. Side effects tend to be more severe for external beam radiation than for brachytherapy.
Common short-term side effects of radiation therapy include

- Tiredness, which may get worse about 2 weeks after treatment begins
- Nausea and vomiting (more common if radiation is given to the belly or pelvis)
- Diarrhea (more common if radiation is given to the belly or pelvis)
- Skin changes, which can range from mild redness to blistering and peeling. The skin may become raw and tender.
- Low blood counts

The diarrhea caused by radiation can usually be controlled with over-the-counter medicines. Nausea and vomiting can be treated with medicines from your doctor. Skin that becomes raw and tender needs to be kept clean and protected to prevent infection.

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

**Long-term side effects**

Radiation to treat vaginal cancer can also cause some long-term side effects. Pelvic radiation can lead to premature menopause. It can also weaken bones, making them more likely to break from a fall or other trauma.

Radiation to the pelvis can also severely irritate the intestines and rectum (called *radiation colitis*), leading to diarrhea and bloody stool. If severe, radiation colitis can cause holes or tears to form in the intestines (called *perforations*).

Pelvic radiation can also cause problems with the bladder (*radiation cystitis*), leading to discomfort and an urge to urinate often. In rare cases, radiation can cause abnormal connections (called *fistulas*) to form between the vagina and the bladder, rectum, or uterus.

If the skin was irritated by radiation, when it heals it may be darker and not as soft.

Radiation can cause the normal tissue of the vagina to become irritated and sore. As it heals, scar tissue can form in the vagina. The scar tissue can make the vagina shorter or more narrow (this is called *vaginal stenosis*). When this happens, vaginal intercourse (sex) can become painful. Stretching the walls of the vagina a few times a week can help prevent this problem.

One way to do this is to have vaginal intercourse at least 3 to 4 times a week. Since this might be uncomfortable while getting cancer treatment (and even after), another option is to use a vaginal dilator. A dilator is a plastic or rubber tube used to stretch out the vagina. It feels much like putting in a large tampon for a few minutes. Even if a woman
is not interested in staying sexually active, keeping her vagina normal in size allows comfortable gynecologic exams. This is an important part of follow-up after treatment. Vaginal estrogens may also be used to relieve dryness and prevent painful intercourse and help maintain the size of the vagina. Still, vaginal dryness and pain with intercourse can be long-term side effects from radiation.

For more information on radiation therapy, see A Guide to Radiation Therapy.

- References
See all references for Vaginal Cancer

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Surgery for Vaginal Cancer

Surgery is usually only used for small stage I tumors and for cancers that were not cured by radiation. Surgery is not often used to treat squamous cell cancers of the vagina, but it is used for sarcomas and melanomas.

The extent of the surgery depends on the size and stage of the cancer.

Local excision

In this procedure, the surgeon removes the cancer along with a surrounding rim of normal tissue. This is sometimes called a wide excision. For VAIN, a local excision may be all that is needed. For small stage I cancers, treatment may include a radical wide local excision along with a procedure to evaluate the lymph nodes.

Vaginectomy

Vaginectomy is surgery to remove the vagina. If only part of the vagina is removed, it’s called a partial vaginectomy. If the entire vagina is removed, it’s called a total vaginectomy. A radical vaginectomy is removal of the vagina along with the supporting tissues around it.
Trachelectomy

Vaginal cancer is most often found in the upper part of the vagina (near the cervix), so removing the cancer sometimes means also removing the cervix. If only the cervix is removed (leaving the rest of uterus behind), the operation is called a trachelectomy. This operation is rarely used to treat vaginal cancer.

Hysterectomy

Sometimes to remove a vaginal cancer, the uterus and cervix must be removed, as well as all or part of the vagina. This operation is called a hysterectomy or total hysterectomy (TH). In operations done for cancer, the connective tissue that surrounds and supports the uterus is often removed as well. In that case, the operation is called a radical hysterectomy. In either case, there are 2 major ways to remove the uterus.

- Removing the uterus through the vagina it is called a vaginal hysterectomy (or VH).
- Removing the uterus through an incision in the abdomen, it is called an abdominal hysterectomy (or total abdominal hysterectomy; TAH).

Often these surgeries are done with the help of a laparoscope – a thin lighted tube that is inserted into the abdomen. Many surgeries are also done using a robotic interface. For this the surgeon sits at a panel near the operating table and controls robotic arms to perform the operation through several small incisions in the patient’s abdomen/pelvis.

The approach that is best for you and your cancer will be discussed with you before surgery. The fallopian tubes and ovaries are often removed in the same operation. This procedure is known as a bilateral salpingo-oophorectomy (or BSO). You may see the abbreviation TAHBSO, which stands for total abdominal hysterectomy bilateral salpingo-oophorectomy.

If a radical hysterectomy is done as part of your treatment, you may need to have a catheter to drain your bladder for a time after surgery. This is because some of the nerves to the bladder can be damaged or removed.

Vaginal reconstruction

If all or most of the vagina must be removed, it is possible to reconstruct (rebuild) a vagina with tissue from another part of the body, which will allow a woman to have sexual intercourse. A new vagina can be surgically created out of skin, intestinal tissue, or myocutaneous (muscle and skin) grafts.
A reconstructed vagina produces little or no natural lubricant when a woman becomes sexually excited. A woman should prepare for intercourse by using a lubricant inside the vagina. If the vagina was rebuilt using muscle and skin from the leg, touching the new vagina may make a woman feel as though her thigh is being stroked. This is because the walls of the vagina are still attached to their original nerve supply. Over time, these feelings become less distracting and may even become sexually stimulating. (For more information about vaginal reconstruction, see Sexuality for the Woman With Cancer.)

**Surgery to remove lymph nodes (lymphadenectomy)**

Surgery to remove lymph nodes is called *lymphadenectomy* or sometimes is called *lymph node dissection*. For vaginal cancer, lymph nodes from the groin area or from inside the pelvis near the vagina may be removed to check for cancer spread.

Removing lymph nodes in the groin or pelvis can result in poor fluid drainage from the legs. The fluid builds up, leading to leg swelling that is severe and doesn’t go down at night when you are lying down. This is called *lymphedema*. This is more common if radiation is given after surgery. Support stockings or special compression devices may help reduce swelling. Women with lymphedema need to be very careful to avoid infection in the affected leg or legs. They can do this by taking these precautions:

- Protect the leg and foot from sharp objects and care for any cuts, scratches, or burns right away
- Avoid sunburn of the affected leg(s) and avoid cutting or tearing the cuticles of the toenails
- Report any redness, swelling, or other signs of infection to the nurse or doctor without delay

More information about lymphedema can be found in [Lymphedema](#).

**Pelvic exenteration**

Pelvic exenteration is an extensive operation that includes vaginectomy and removing the pelvic lymph nodes, as well as of one or more of the following structures: the lower colon, rectum, bladder, uterus, and cervix. 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 get rid of 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. More information about urostomy can be found in Urostomy Guide.

If the rectum and part of the colon are removed, a new way to eliminate solid waste is needed. This is done by attaching the remaining intestine to the abdominal wall so that stool can pass through a small opening (called a colostomy) into a small plastic bag worn on the front of the abdomen. (More information about colostomy can be found in Colostomy Guide.) Sometimes it’s possible to remove a piece of the colon and then reconnect it. In that case, no bags or external appliances are needed.

Pelvic exenteration is rarely needed to treat vaginal cancer – radiation therapy is usually used first, and then less extensive surgery may be all that is needed to control cancer that comes back. Still, this procedure might be used for vaginal cancers that have come back after treatment with radiation therapy. It is also sometimes needed to treat vaginal cancers when radiation therapy cannot be used, for example, if a woman has been treated with radiation for cervical cancer in the past. That is because treating the same area with radiation more than once can cause severe complications.

For more information on surgery, see Cancer Surgery.

- References
See all references for Vaginal Cancer

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Chemotherapy for Vaginal Cancer

Chemotherapy (chemo) uses anti-cancer drugs that are usually given intravenously (into a vein), by mouth, or applied to the skin in an ointment. Drugs taken by mouth or injected into a vein, called systemic chemotherapy, enter the bloodstream to reach throughout the body, making this treatment potentially useful for cancer that has spread to distant sites.

Chemo is the main treatment for vaginal cancer that has spread. It may also be helpful as a way to shrink tumors before surgery. When it is used before surgery, it may be
given with radiation to make radiation work better.

Because vaginal cancer is rare, there haven’t been many studies to see which chemo is best. Often, the chemo given is similar to that used for cervical cancer. Drugs that have been used include

- Cisplatin
- Carboplatin
- Fluorouracil (5-FU)
- Paclitaxel (Taxol®)
- Docetaxel (Taxotere®)

Many chemo drugs 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 some 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 include:

- Hair loss
- Mouth sores
- Loss of appetite
- Diarrhea
- Nausea and vomiting
- Changes in the menstrual cycle, premature menopause, and infertility (inability to become pregnant). Most women with vaginal cancer, however, have gone through menopause.

Chemo can also affect 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 cells)
- Easy bruising or bleeding (due to low blood platelets)
- Fatigue (due to low red blood cells)

Other side effects can occur depending on which drug is used. For example, cisplatin can cause nerve damage (called neuropathy). This can lead to numbness, tingling, or even pain in the hands and feet.

Most side effects are temporary and stop when the treatment is over, but chemo drugs can have some long-lasting or even permanent effects. 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.

- References
See all references for Vaginal Cancer

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Treatment Options, by Stage and Type of Vaginal Cancer

The type of treatment your cancer care team will recommend depends on the type of vaginal cancer you have and how far the cancer has spread. This section summarizes the choices available according to the stage of your cancer.

Vaginal intraepithelial neoplasia (VAIN)

Many cases of low-grade VAIN (VAIN 1) will go away on their own, so some doctors will choose to watch them closely without starting treatment. This means getting repeat Pap tests – often with colposcopy if needed. If the area of VAIN doesn’t go away or gets worse, treatment is started. VAIN 2 is not likely to go away on its own, so treatment is usually started right away.

VAIN is often treated using topical therapy (like 5-FU or imiquimod) or laser treatment. When there are many areas of VAIN, intracavitary radiation (brachytherapy) may be used. Sometimes, surgery is used to remove the lesion. Surgery may be chosen if other treatments fail or if the doctor wants to be sure that the area isn’t invasive cancer. Surgery may involve a wide local excision, removing the abnormal area and a rim of surrounding normal tissue. A partial vaginectomy (removal of part of the vagina) is rarely needed to treat VAIN.

Stage 0 (VAIN 3 or CIS)

The usual treatment options are laser vaporization, local excision, and intracavitary...
radiation (brachytherapy).

Topical chemotherapy with 5-FU cream is also an option, but this requires treatment at least weekly for 10 weeks. This treatment can severely irritate the vagina and vulva. Topical immunotherapy with imiquimod may also be used.

If the cancer comes back again after these treatments, surgery (partial vaginectomy) may be needed. The surgeon would remove the entire tumor and enough surrounding normal tissue to ensure that it doesn’t come back.

Stage I

Squamous cell cancers: Radiation therapy is used for most stage I vaginal cancers. If the cancer is less than 5 mm thick (about 3/16 inch), intracavitary radiation may be used alone. Interstitial radiation is an option for some tumors, but it’s not often used. For tumors that have grown more deeply, intracavitary radiation may be combined with external beam radiation.

Removing part or the entire vagina is an option for some cancers (partial or radical vaginectomy). Reconstructive surgery to create a new vagina after treatment of the cancer is an option if a large portion of the vagina has been removed.

If the cancer is in the upper vagina, it may be treated by a radical hysterectomy, bilateral radical pelvic lymph node removal, and radical or partial vaginectomy.

Following a radical partial or complete vaginectomy, postoperative radiation (external beam) may be used to treat tiny deposits of cancer cells that have spread to lymph nodes in the pelvis.

Adenocarcinomas: For cancers in the upper part of the vagina, the treatment is surgery: a radical hysterectomy, partial or radical vaginectomy, and removal of pelvic lymph nodes. This can be followed by reconstructive surgery if needed or desired. Radiation therapy may be given as well.

For cancers lower down in the vagina, one choice is to give both either interstitial or intracavitary radiation therapy and external radiation beam therapy. The lymph nodes in the groin and/or pelvis are treated with external beam radiation therapy.

Stage II

The usual treatment is radiation, using a combination of brachytherapy and external
beam radiation.

Radical surgery (radical vaginectomy or pelvic exenteration) is an option for some patients with stage II vaginal squamous cell cancer if it’s small and in the upper vagina. It’s also used to treat women who have already had radiation therapy for cervical cancer and who would not be able to tolerate additional radiation without severe damage to normal tissues.

Chemotherapy (chemo) with radiation may also be used to treat stage II disease.

Giving chemo to shrink the cancer before radical surgery may be helpful.

Stage III or IVA

The usual treatment is radiation therapy, often with both brachytherapy and external beam radiation. Curative surgery is generally not attempted. Chemo might be combined with radiation to help it work better.

Stage IVB

Since the cancer has spread to distant sites, it can’t be cured. Patients often receive radiation therapy to the vagina and pelvis to improve symptoms and reduce bleeding. Chemo might also be given, but it has not been shown to help patients live longer. Because there’s no accepted treatment for this stage, often the best option is to enroll in a clinical trial.

Recurrent squamous cell cancer or adenocarcinoma of the vagina

If a cancer comes back after treatment it is called recurrent. If the cancer comes back in the same area as it was in the first place, it is called a local recurrence. If it comes back in another area (like the liver or lungs), it is called a distant recurrence.

A local recurrence of a stage I or stage II vaginal cancer may be treated with radical surgery (such as pelvic exenteration). If the cancer was originally treated with surgery, radiation therapy is an option. Surgery is the usual choice when the cancer has come back after radiation therapy.

Higher-stage cancers are difficult to treat when they recur. They usually can’t be cured by currently available treatments. Care focuses mostly on relieving symptoms, although participation in a clinical trial of new treatments may be helpful.
For a distant recurrence, the goal of treatment is to help the woman feel better. Surgery, radiation, or chemo may be used. Again, a clinical trial is a good option.

**Vaginal melanoma**

*Surgery* is the main treatment for vaginal melanoma. Because vaginal melanoma is very rare, it hasn’t been well studied. Doctors are still not certain about how much tissue needs to be removed to give the best chance of cure. One choice is to remove the cancer and a margin of the normal tissue around it. This is how a melanoma on the skin of an arm or leg would be treated. Another option is to remove the entire vagina and some tissue from nearby organs. Some (or all) of the lymph nodes that drain the area of the tumor are also removed and checked for cancer spread.

There are a few drugs that can be helpful in treating metastatic melanoma. These and other treatments are discussed in more detail in *Melanoma Skin Cancer*. Radiation therapy may also be used for melanoma that has spread. It’s most often used for spread to the brain or spinal cord. A good option for women with metastatic vaginal melanoma is to receive treatment as a part of a clinical trial.

**Rhabdomyosarcoma**

Treatment of rhabdomyosarcoma is discussed in *Rhabdomyosarcoma*.

- References

See all references for Vaginal Cancer

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