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Treating Vaginal Cancer

If you've been diagnosed with vaginal cancer, your cancer care team will discuss your treatment options with you. It's important that you think carefully about each of your choices. Weigh the benefits of each treatment option against the possible risks and side effects.

Treatments for vaginal pre-cancers

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

Many cases of low-grade VAIN will go away on their own, so some doctors will choose to watch them closely without starting treatment. If the area of VAIN doesn't go away or gets worse, treatment is usually started. Higher grade VAIN is not likely to go away on its own, so treatment is usually started right away.

Common treatment approaches

Depending on the type and stage of your vaginal cancer, you may need more than one type of treatment.

- [Treatment Options for Vaginal Cancer, by Stage and Type](#)

Who treats vaginal cancer?

Based on your treatment options, you might have different types of doctors on your treatment team. These doctors could 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

You might have many other specialists on your treatment team as well, including physician assistants (PAs), nurse practitioners (NPs), nurses, psychologists, nutritionists, social workers, and other health professionals.

- [Health Professionals Who Are Part of a Cancer Care Team](#)

Making treatment decisions

Your treatment will depend on the type and stage of your cancer, but other factors might also play a part in choosing the best treatment plan. These could include your age, your overall health, whether you plan to have children, and your personal preferences. Be sure you understand the risks and side effects of all the options before making a decision about treatment. Ask questions if there's anything you're not sure about.

Vaginal cancer can affect your sex life and your ability to have children, so these concerns should also be considered as you make treatment decisions.

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 Vaginal Cancer](#)
- [Fertility and Sexual Side Effects](#)
- [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.

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 to relieve symptoms or treat your cancer that your doctors haven't mentioned. These methods can include vitamins, herbs, and special diets, or other methods such as acupuncture or massage, to name a few.

Complementary methods are treatments that are used **along with** your regular medical care. **Alternative** treatments are used **instead of** standard 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

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 they 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 Cancer Knowledge Hub at 1-800-227-2345 and speak with one of our caring, trained cancer helpline specialists. Or, if you prefer, you can use our chat feature on cancer.org to connect with one of our specialists.

- [Palliative Care](#)
- [Programs & Services](#)

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 as 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 your

cancer care team any questions you may have about your treatment options.

Laser Surgery for Vaginal Pre-Cancer

In laser surgery (also called **laser ablation**), a beam of high-energy light is used to vaporize (dissolve) abnormal tissue. Laser surgery is done in the clinic setting and the person usually is able to go home the same day. Side effects can include vaginal discharge, vaginal bleeding, and cramping similar to that of a menstrual period.

Laser surgery typically is not a treatment for invasive cancer. For laser surgery to be an option, the doctor must be certain that the worst lesion was [tested](#)¹ and it's not invasive cancer. This treatment works well for vaginal pre-cancer (vaginal intraepithelial neoplasia or VAIN), and can even be used for large lesions (areas of abnormal cells).

For more information on the laser surgery procedure, see [Lasers in Cancer Treatment](#)².

Hyperlinks

1. www.cancer.org/cancer/types/vaginal-cancer/detection-diagnosis-staging/how-diagnosed.html
2. www.cancer.org/cancer/managing-cancer/treatment-types/lasers-in-cancer-treatment.html

References

National Cancer Institute. Vaginal Cancer Treatment (PDQ®)—Patient Version. April 5, 2023. Accessed at www.cancer.gov/types/vaginal/patient/vaginal-treatment-pdq on May 28, 2024.

Piovano E, Macchi C, Attamante L, et al. CO2 laser vaporization for the treatment of vaginal intraepithelial neoplasia: effectiveness and predictive factors for recurrence. *Eur J Gynaecol Oncol*. 2015;36(4):383-388.

Sopracordevole F, Moriconi L, Di Giuseppe J, et al. Laser Excisional Treatment for Vaginal Intraepithelial Neoplasia to Exclude Invasion: What Is the Risk of Complications? *J Low Genit Tract Dis*. 2017;21(4):311-314.

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Topical Therapy for Vaginal Pre-Cancer

Topical therapy puts the drug right onto the affected area. This may be done to treat vaginal pre-cancer (vaginal intraepithelial neoplasia or VAIN), but **it's not used to treat invasive vaginal cancer**.

Two drugs are used most often for topical therapy:

- **Fluorouracil (5-FU)** is a chemotherapy drug that can be put directly on the lining of the vagina. This is repeated weekly for about 10 weeks or given nightly for 1 to 2 weeks. However, this treatment can cause severe vaginal and vulvar irritation. Also, it may not work as well as using a laser or simply removing the area of abnormal cells with surgery.
- **Imiquimod (Aldara)** is a cream that can 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 about half of women with VAIN 1 or 2, it has caused VAIN to go away.

References

Fiascone S, Vitonis AF, Feldman S. Topical 5-Fluorouracil for Women With High-Grade Vaginal Intraepithelial Neoplasia. *Obstet Gynecol*. 2017 Dec;130(6):1237-1243. doi: 10.1097/AOG.0000000000002311. PMID: 29112645.

Gurumurthy M, Cruickshank ME. Management of vaginal intraepithelial neoplasia. *J Low Genit Tract Dis*. 2012;16(3):306-312.

Rahangdale L, Lippmann QK, Garcia K, Budwit D, Smith JS, van Le L. Topical 5-fluorouracil for treatment of cervical intraepithelial neoplasia 2: a randomized controlled trial. *Am J Obstet Gynecol*. 2014 Apr;210(4):314.e1-314.e8. doi: 10.1016/j.ajog.2013.12.042. Epub 2013 Dec 31. PMID: 24384495.

Sasagasako N, Kosaka K, Sagae Y, Itoh K, Aratake J, Yamada K, et al. Recurrent vaginal intraepithelial neoplasia successfully treated with topical imiquimod: A case report. *Mol Clin Oncol*. 2020 Sep;13(3):19. doi: 10.3892/mco.2020.2089. Epub 2020 Jul 13. PMID: 32754333; PMCID: PMC7391826.

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- **For Stages II through Stage IVA:** EBRT/IMRT is commonly given with chemotherapy, then followed by intracavitary brachytherapy.

Intracavitary brachytherapy

Another way to deliver radiation is to place radioactive material inside the vagina. There are 2 main types of intracavitary brachytherapy:

- **Low dose rate (LDR) brachytherapy:** The radioactive material is inside a cylinder-shaped container that's put in the vagina. It stays in place for a day or 2. Gauze packing helps hold the cylinder in place, but you have to stay in bed in the hospital during the treatment.
- **High dose rate (HDR) brachytherapy:** The radiation source is in a cylinder, but it doesn't need to stay in place for long. This means it can be given in an outpatient setting. Typically, 3 or 4 treatments are given 1 or 2 weeks apart.

When given this way, the radiation mainly affects the tissue touching the cylinder. This means the radiation is less likely to cause bladder and bowel side effects.

Another type of brachytherapy, called **interstitial radiation**, uses radioactive material inside needles that are put right into the tumor and nearby tissues.

Side effects of radiation therapy

Radiation can destroy nearby healthy tissue along with the cancer 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.

Short-term side effects

Common short-term side effects of radiation therapy include:

- Tiredness, which may get worse about 2 weeks after treatment begins and get better over time after treatment ends
- 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 in the area where the radiation is given, 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.

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. Many of them are caused by radiation damage to nearby organs. For instance, pelvic radiation can damage the ovaries, leading to early 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 (perforations) to form in the intestines.

Pelvic radiation can 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 is irritated by radiation, when it heals it may be darker and not as soft. The hair may not grow back.

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 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 sex 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 there is no interest in staying sexually active, keeping the vagina normal in size allows for comfortable

gynecologic exams. This is an important part of follow-up after treatment. Vaginal creams may also be used to relieve dryness, prevent painful sex, and help maintain the size of the vagina. Still, vaginal dryness and pain with sex can be long-term side effects from radiation. See [Sex and the Woman With Cancer](#)¹ to learn more.

More information about radiation therapy

To learn more about how radiation is used to treat cancer, see [Radiation Therapy](#)².

To learn about some of the side effects listed here and how to manage them, see [Managing Cancer-related Side Effects](#)³.

Hyperlinks

1. www.cancer.org/cancer/managing-cancer/side-effects/fertility-and-sexual-side-effects/sexuality-for-women-with-cancer.html
2. www.cancer.org/cancer/managing-cancer/treatment-types/radiation.html
3. www.cancer.org/cancer/managing-cancer/side-effects.html

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Surgery for Vaginal Cancer

Usually, surgery is only used for very early-stage vaginal cancers and for cancers that were not cured with radiation. The extent of the surgery depends on the size, location, and stage of the cancer. Surgery may be the only treatment needed for a very small vaginal cancer.

- [Types of surgery used for vaginal cancer](#)
- [Vaginal reconstruction](#)
- [Surgery to remove lymph nodes \(lymphadenectomy\)](#)
- [Pelvic exenteration](#)
- [Coping with surgery for vaginal cancer](#)
- [More information about Surgery](#)

Types of surgery used for vaginal cancer

Local excision

This is sometimes called a **wide excision**. The surgeon takes out the cancer along with a nearby edge or rim of normal tissue. For vaginal intraepithelial neoplasia ([VAIN](#))¹, a local excision may be all that's needed. For small stage I cancers, treatment may include a local excision along with surgery to check the [lymph nodes](#)² (see below).

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 removes the vagina along with the supporting tissues around it. This type of surgery may be considered for patients with vaginal cancer that cannot be treated with radiation or chemotherapy.

A gynecologic or reconstructive surgeon can repair the vagina or create a new vagina with grafts of tissue from other parts of the body (see Vaginal reconstruction below). It

still might be possible to have sexual intercourse after this type of surgery, but a lubrication aid may be needed.

Trachelectomy

Vaginal cancer most often starts 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**. (See [Surgery for Cervical Cancer](#)³ for more about this procedure.) This is rarely done 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).

surgery. This lets the surgeon avoid making a large cut in the abdomen.

- **Robot-assisted surgery:** Many surgeries use a robotic interface. For this, the surgeon sits at a panel near the operating table and controls tools on robotic arms to operate through small cuts in the abdomen/pelvis.

Your doctor will talk to you about the approach that's best for you before surgery is planned.

Vaginal reconstruction

If all or most of the vagina must be removed, it might be possible to reconstruct (rebuild) a vagina with tissue from another part of the body. This would allow a person to have sex after surgery. A new vagina can be surgically created out of skin, intestinal tissue, or myocutaneous (muscle and skin) grafts.

A reconstructed vagina needs special care. See [Sex and the Woman With Cancer](#)⁴ to learn more.

Surgery to remove lymph nodes (lymphadenectomy)

Surgery to remove [lymph nodes](#)⁵ is called **lymphadenectomy** or **lymph node dissection**.

For vaginal cancer, lymph nodes in the groin area (inguinal lymph nodes) or inside the pelvis near the vagina (pelvic lymph nodes) may be taken out to check for cancer spread (metastasis). This is generally done for patients with very early-stage vaginal cancer.

Removing lymph nodes in the groin or pelvis can cause poor fluid drainage from the legs. The fluid builds up, leading to severe leg swelling. This is especially true for patients with early-stage vaginal cancer.

Pelvic exenteration

Pelvic exenteration is a major operation that includes vaginectomy, removing the pelvic lymph nodes, and removing one or more of the following: the lower colon, rectum, bladder, uterus, and/or 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 piece of intestine is used to function as a new bladder. This may be connected to the abdominal (belly) wall with a small opening called a **urostomy**. Urine can then be drained out when a catheter is put into the urostomy. Or urine may drain continuously into a small plastic bag that sticks to the abdomen over the opening. More information can be found in [Urostomy Guide](#)⁷.

If the rectum and part of the colon are removed, a new way to get rid of 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 that sticks to the abdomen. More details can be found in [Colostomy Guide](#)⁸. Sometimes it's possible to remove a piece of the colon and then reconnect it. In that case, no bag would be needed.

Pelvic exenteration is rarely needed to treat vaginal cancer. Radiation therapy is usually used first, and then less extensive surgery might be all that's needed. Still, this procedure might be used for vaginal cancers that have come back after treatment with

Kulkarni A, Dogra N, Zigras T. Innovations in the Management of Vaginal Cancer. *Curr Oncol*. 2022 Apr 27;29(5):3082-3092. doi: 10.3390/curroncol29050250. PMID: 35621640; PMCID: PMC9139564.

National Comprehensive Cancer Network, Clinical Practice Guidelines in Oncology (NCCN Guidelines®), Vaginal Cancer, Version 1.2025 -- March 26, 2024. Accessed at <https://www.nccn.org> on May 28, 2024.

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Chemotherapy for Vaginal Cancer

Because vaginal cancer is relatively uncommon, much of the chemo decision-making for treatment of vaginal cancer is based on cervical cancer studies. To treat vaginal cancer, chemo can be given:

- At the same time as radiation (for disease that has not spread to other parts of the body)
- Alone (for disease that has already spread to other parts of the body)
- Before surgery, to shrink the tumor (this is called **neoadjuvant chemo**).
- [How is chemo used to treat vaginal cancer?](#)
- [Chemo drugs commonly used for vaginal cancer](#)
- [Chemo side effects](#)
- [More information about chemotherapy](#)

How is chemo used to treat vaginal cancer?

Chemotherapy (chemo) drugs may be given intravenously (into a vein), taken by mouth, or applied to the skin in an ointment. Drugs taken by mouth or injected into a vein are called **systemic chemotherapy**. They enter the bloodstream to reach throughout the body, making this treatment useful for vaginal cancer that has spread to other parts of the body.

Chemo drugs commonly used for vaginal cancer

Because vaginal cancer is rare, there haven't been many studies to see which chemo drug is best. So, at this time, there's no standard or "best" chemo treatment plan. Treatment choices are made based on each person's needs. Most often, doctors use the same types of drugs that are used for cervical cancer. Drugs that have been used include:

- Cisplatin
- Carboplatin
- Bevacizumab (Avastin)
- Paclitaxel (Taxol®)
- Topotecan (Hycamtin)
- Docetaxel (Taxotere)
- Fluorouracil (5-FU)

Chemo side effects

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 vaginal cancer patients, however, have a good chance of becoming pregnant again.

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.

Long-term side effects of chemotherapy can include:

Menstrual changes: If you are younger and have not had your uterus removed as a part of treatment, changes in menstrual periods are a common side effect of chemo. But even if your periods stop while you are on chemo, you might still be able to get pregnant. Getting pregnant while receiving chemo is not safe, as it could lead to birth defects and interfere with treatment. This is why it's important to discuss your options for birth control with your doctor if you are pre-menopausal before treatment and are sexually active. Patients who have finished treatment (like chemo) can often go on to have children, but it's important to talk to your doctor about when it is safe to do so.

Premature menopause (not having any more menstrual periods) and infertility (not being able to become pregnant) may occur and may be permanent. Some chemo drugs are more likely to cause this than others. The older you are when you get chemo, the more likely it is that you will become infertile or go through menopause as a result. If this happens, there is an increased risk of bone loss and osteoporosis. There are medicines that can help you become fertile or go through 2 _____ 60 060 ,2 38712 gjupaionsdNuroopathy

More information about chemotherapy

For more general information about how chemotherapy is used to treat cancer, see [Chemotherapy](#)¹.

To learn about some of the side effects listed here and how to manage them, see [Managing Cancer-related Side Effects](#)².

Hyperlinks

1. www.cancer.org/cancer/managing-cancer/treatment-types/chemotherapy.html
2. www.cancer.org/cancer/managing-cancer/side-effects.html

References

Adams TS, Rogers LJ, Cuello MA. Cancer of the vagina: 2021 update. *Int J Gynaecol Obstet.* 2021 Oct;155 Suppl 1(Suppl 1):19-27. doi: 10.1002/ijgo.13867. PMID: 34669198; PMCID: PMC9298013.

National Comprehensive Cancer Network, Clinical Practice Guidelines in Oncology

Targeted Drug Therapy for Vaginal Cancer

Targeted drug therapy is directed (targeted) at proteins on vaginal cancer cells that help them grow, spread, or live longer. Targeted drugs work to destroy cancer cells or slow down their growth. Some targeted therapy drugs, for example, monoclonal antibodies, work in more than one way to control cancer cells and can also be considered [immunotherapy](#)¹ because they boost the immune system. Different types of targeted drug therapy can be used to treat vaginal cancer.

- [Antibody-drug conjugates](#)
- [RET inhibitors](#)
- [NTRK inhibitors](#)
- [More information about targeted therapy](#)

Antibody-drug conjugates

An antibody-drug conjugate (ADC) is a monoclonal antibody linked to a chemotherapy drug. The antibody acts like a homing signal by attaching to a target protein on cancer cells, so that the chemo can be brought directly to the cancer cell.

Fam-trastuzumab deruxtecan, T-DXd (Enhertu): This ADC connects the anti-HER2 antibody to the chemo drug, deruxtecan. T-DXd can be used by itself to treat late-stage vaginal cancer that is HER2 positive and has recurred after initial systemic treatment.

This drug is given in a vein (IV) typically once every 3 weeks.

Common side effects include low blood cell counts, nausea/vomiting, diarrhea, fatigue, hair loss, decreased appetite, low potassium level, changes in liver function tests, and cough.

A less common but serious side effect is decreased heart muscle strength, which is a condition called **left ventricular dysfunction**.

Tisotumab vedotin-tftv (Tivdak): This ADC has an antibody that targets tissue-factor (TF) protein on cancer cells. It brings the chemo drug, monomethyl auristatin E (MMAE), directly to the cancer cell. This drug was studied in people with cervical cancer. Since vaginal cancer is relatively uncommon and lacks data, chemo drugs approved for cervical cancer are commonly used to treat vaginal cancer as well.

Tisotumab vedotin can be used by itself to treat late-stage vaginal cancer that has come back, after initial chemo treatment.

This drug is given in a vein (IV) typically once every 3 weeks.

Common side effects can include feeling tired, nausea, vomiting, hair loss, bleeding, diarrhea, rash, nerve damage (peripheral neuropathy), abnormal kidney function, or low blood cell counts.

Less common but serious side effects can include vision change or loss. People should have regular eye exams while taking this drug and tell their healthcare team right away if they have any eye symptoms.

RET inhibitors

In a small percentage of vaginal cancers, the tumor cells have a rearrangement in the *RET* gene that causes them to make an abnormal form of the RET protein. This abnormal protein helps the tumor cells grow.

Selpercatinib (Retevmo) targets the enzyme that makes cancer cells grow and can be used to treat advanced vaginal cancer with the RET rearrangement.

These drugs are capsules taken by mouth, typically twice a day.

Common side effects can include dry mouth, diarrhea or constipation, high blood pressure, tiredness, swelling in hands and/or feet, skin rash, muscle and joint pain, low blood cell counts or changes in other blood tests.

Less common but more serious side effects can include liver damage, lung damage, allergic reactions, changes in heart rhythm, bleeding easily, and problems with wound healing.

NTRK inhibitors

A very small number of vaginal cancers have changes in one of the *NTRK* genes, called ***NTRK* gene fusions**. Cells with these gene changes make abnormal TRK proteins, which can lead to abnormal cell growth and cancer.

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These drugs are taken as pills, once or twice daily.

Common side effects can include abnormal liver test results; decreased white blood cells and red blood cells; muscle and joint pain; tiredness; diarrhea or constipation; nausea and vomiting; and stomach pain.

Less common but more serious side effects can include mental changes, such as confusion, changes in mood, and changes in sleep; liver damage; changes in heart rhythm and/or function; vision changes; and harm to a fetus.

More information about targeted therapy

To learn more about how targeted drugs are used to treat cancer, see [Targeted Cancer Therapy](#)².

To learn about some of the side effects listed here and how to manage them, see [Managing Cancer-related Side Effects](#)³.

Hyperlinks

1. www.cancer.org/cancer/types/cervical-cancer/treating/immunotherapy.html
2. www.cancer.org/cancer/managing-cancer/treatment-types/targeted-therapy.html
3. www.cancer.org/cancer/managing-cancer/side-effects.html

References

Coleman RL, Lorusso D, Gennigens C, et al. Efficacy and safety of tisotumab vedotin in previously treated recurrent or metastatic cervical cancer (innovaTV 204/GOG-3023/ENGOT-cx6): a multicentre, open-label, single-arm, phase 2 study. *Lancet Oncol* 2021;22:609-619.

National Comprehensive Cancer Network, Clinical Practice Guidelines in Oncology

Immunotherapy for Vaginal Cancer

Immunotherapy uses medicines to help a person's immune system better recognize and destroy cancer cells. Many types of immunotherapy are being tested in [clinical trials](#)¹, and some are used to treat vaginal cancer.

- [Immune checkpoint inhibitors](#)
- [Possible side effects of immune checkpoint inhibitors](#)
- [More information about immunotherapy](#)

Immune checkpoint inhibitors

An important part of a person's immune system is its ability to keep itself from attacking the body's normal cells. To do this, it uses 'checkpoint' proteins on immune cells, which act like switches that need to be turned on (or off) to start an immune response. Cancer

mutations

- **PD-L1 positive**, meaning the cancer cells have a high amount of the PD-L1 protein on their surface.

This drug is given as an intravenous (IV) infusion, typically once every 3 or 6 weeks.

Autoimmune reactions: These drugs work by removing one of the safeguards on the body's immune system. Sometimes this allows the immune system to attack other parts of the body, which can cause serious or even life-threatening problems in the lungs, intestines, liver, hormone-making glands, kidneys, skin, or other organs.

It's very important to report any new side effects to your health care team right away. If you have a serious side effect, treatment may need to be delayed or stopped, and you may be given high doses of corticosteroids to suppress your immune system.

from the phase I/II CheckMate 358 trial. *J Clin Oncol*

Treatment Options for Vaginal Cancer, by Stage and Type

some doctors may just watch it closely and then start treatment later, if needed.

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 (the area of abnormal cells). Surgery might also be used if other treatments don't work or if the doctor wants to be

nodes of the groin and/or 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. Both internal and external radiation therapy may be given as well.

For cancers lower down in the vagina, external beam radiation therapy may be used, along with either interstitial or intracavitary radiation therapy. The lymph nodes in the groin and/or pelvis are often treated with external beam radiation therapy.

Stage II through Stage IVA

The usual treatment is external beam [radiation](#) given with chemo, and with or without brachytherapy.

Some people may be too frail or have other medical conditions which would not let them tolerate chemo. In those cases, they may be treated with external beam radiation (without concurrent chemo) followed by brachytherapy.

Stage IVB

Since the cancer has spread (metastasized) to distant sites, it can't be cured. Because vaginal cancer is relatively uncommon, much of the treatment methods for vaginal cancer are based on studies from patients with cervical cancer.

If the tumor cells have certain mutations or biomarkers, a patient with metastatic vaginal cancer may be treated with chemo with immunotherapy, chemo alone, immunotherapy alone, or targeted therapy.

[Radiation therapy](#) to the vagina and pelvis might be used to ease symptoms and reduce bleeding.

Because there's no standard treatment for this stage, the best option is to enroll in a [clinical trial](#)⁴.

Recurrent squamous cell cancer or adenocarcinoma of the vagina

If a cancer comes back after treatment it's called [recurrent cancer](#)⁵.

- If it comes back in the same place it was the first time, it's called a **local** recurrence.
- If it comes back in a location near where it was the first time, it is called a **regional** recurrence.
- If it comes back in another part of the body, like the liver or lungs, it's 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 treated with surgery before, [radiation therapy](#) is an option.

Surgery is the usual choice when the cancer comes back after radiation therapy.

Higher-stage cancers are hard to treat when they recur. They usually can't be cured. Care focuses mostly on [relieving symptoms](#)⁶, although taking part in a [clinical trial](#)⁷ of new treatments may be helpful.

For a distant recurrence, the goal of treatment is to help the patient feel better.

Hyperlinks

1. www.cancer.org/cancer/types/vaginal-cancer/about/what-is-vaginal-cancer.html
2. www.cancer.org/cancer/types/vaginal-cancer/detection-diagnosis-staging/how-diagnosed.html
3. www.cancer.org/cancer/diagnosis-staging/lymph-nodes-and-cancer.html
4. www.cancer.org/cancer/managing-cancer/making-treatment-decisions/clinical-trials.html
5. www.cancer.org/cancer/survivorship/long-term-health-concerns/recurrence.html
6. www.cancer.org/cancer/managing-cancer/palliative-care.html
7. www.cancer.org/cancer/managing-cancer/making-treatment-decisions/clinical-trials.html

References

Adams TS, Rogers LJ, Cuello MA. Cancer of the vagina: 2021 update. *Int J Gynaecol Obstet.* 2021 Oct;155 Suppl 1(Suppl 1):19-27. doi: 10.1002/ijgo.13867. PMID: 34669198; PMCID: PMC9298013.

Kulkarni A, Dogra N, Zigras T. Innovations in the Management of Vaginal Cancer. *Curr Oncol.* 2022 Apr 27;29(5):3082-3092. doi: 10.3390/curroncol29050250. PMID: 35621640; PMCID: PMC9139564.

National Cancer Institute. Vaginal Cancer Treatment (PDQ®)—Patient Version. April 5, 2023. Accessed at www.cancer.gov/types/vaginal/patient/vaginal-treatment-pdq on May 28, 2024. National Comprehensive Cancer Network, Clinical Practice Guidelines in Oncology (NCCN Guidelines®) bC39ni 5.2. Na8 l731.2.-pdrch 26 gs (28ines in)Tj 0 g 1 0 0 0 82 585