About Vaginal Cancer

Overview and Types

If you’ve been diagnosed with vaginal cancer or are worried about it, you likely have a lot of questions. Learning some basics is a good place to start.

- What Is Vaginal Cancer?

Research and Statistics

See the latest estimates for new cases of vaginal cancer and deaths in the US and what research is currently being done.

- Key Statistics for Vaginal Cancer
- What’s New in Vaginal Cancer Research?

What Is Vaginal Cancer?

Cancer starts when cells in the body begin to grow out of control. Cells in nearly any part of the body can become cancer, and can spread to other areas of the body. To learn more about how cancers start and spread, see What Is Cancer?

Vaginal Cancer starts in the vagina. There are many different types of vaginal cancer, but the most common is called squamous cell carcinoma. It starts in the lining of the vagina.
The vagina

The vagina starts at the cervix (the lower part of the uterus) and opens at the vulva (the external female genitals). The vagina is usually collapsed with its walls touching each other. The vaginal walls have many folds that help the vagina open and expand during sex or the birth of a baby.

Several different types of cells and tissues are found in the vagina:

- The lining of the vagina has a layer of flat cells called *squamous* cells. This layer of cells is also called *epithelium* or *epithelial lining* because squamous cells are a type of epithelial cell.
- The vaginal wall underneath the epithelium is made up of connective tissue, muscle, lymph vessels, and nerves.
- Glands near the opening of the vagina make mucus to keep the vaginal lining moist.

Female reproductive organs

VAIN (vaginal pre-cancer)

A pre-cancer is a condition where some cells look abnormal. These cell changes are not cancer, but could become cancer over time. *Vaginal intraepithelial neoplasia* or *VAIN* means that the changed cells are only found in the innermost surface layer of the vagina.

VAIN is more common in women who have had their uterus removed (hysterectomy) and in those who were treated for cervical cancer or pre-cancer in the past.
There are 3 types of VAIN: VAIN1, VAIN2, and VAIN3. VAIN3 is the closest to a true cancer. In the past, the term *dysplasia* was used instead of VAIN. The types of dysplasia were referred to as mild, moderate, and severe, based on how close it was to a true cancer. This term is used much less now.

Low-grade VAIN (VAIN1) will sometimes go away on its own, but VAIN can sometimes lead to cancer if not treated. Higher-grade VAIN (VAIN2 or VAIN3) is usually treated right away.

**Types of vaginal cancer**

Though it's quite rare, there are many types of vaginal cancer. Each type forms from a different type of cell in the vagina.

**Squamous cell carcinoma**

Nearly 9 out of 10 cases of vaginal cancer are *squamous cell carcinomas*. These cancers start in the squamous cells that make up the epithelial lining of the vagina. They’re most common in the upper part of the vagina near the cervix. If not treated, they can grow deeper into and, over time, through the vaginal wall and spread to nearby tissues. They can also spread to other parts of the body, most often the lungs, but also the liver and bones.

Squamous cell cancers of the vagina often develop slowly. First, some of the normal cells of the vagina get pre-cancerous changes (VAIN). Then some of the pre-cancer cells turn into cancer cells. This process can take many years.

**Adenocarcinoma**

Cancers that start in gland cells are called *adenocarcinomas*. About 1 out of 10 cases of vaginal cancer are adenocarcinomas.

The most common type of vaginal adenocarcinoma is found in women older than 50. Another type, called *clear cell adenocarcinoma*, is more common in young women who were exposed to diethylstilbestrol (DES) in utero (when they were in their mother’s womb). See Risk Factors for Vaginal Cancer for more information on DES and clear cell carcinoma.

**Very rare vaginal cancers**
Melanoma

Melanomas start in pigment-producing cells that give skin its color. These cancers usually are found on sun-exposed parts of the skin, but they can also form in the vagina or other internal organs. Fewer than 3 of every 100 cases of vaginal cancer are melanomas.

Melanoma tends to affect the lower or outer portion of the vagina. The tumors vary greatly in size, color, and growth pattern. More information on this can be found in Melanoma Skin Cancer³.

Sarcoma

Sarcomas are cancers that start in the cells of bones, muscles, or connective tissue. Fewer that 3 out of every 100 cases of vaginal cancer are sarcomas. These cancers form deep in the wall of the vagina, not on its surface.

There are several types of sarcomas. Rhabdomyosarcoma⁴ is the most common type of sarcoma that affects the vagina. It’s most often found in children and is rare in adults. A sarcoma called leiomyosarcoma is seen more often in adults. It tends to occur in women older than 50.

Cancers that spread to the vagina

Cancers that start in the vagina are much less common than cancers that start in other organs (such as the cervix, uterus, rectum, or bladder) and then spread to the vagina. These cancers are named after the place where they started.

If a cancer involves both the cervix and vagina, it is considered a cervical cancer⁵. Likewise, if the cancer involves both the vulva and the vagina, it’s considered a vulvar cancer⁶.

Hyperlinks

References


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

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**Key Statistics for Vaginal Cancer**

Vaginal cancer is very rare. Only about 1 of every 1,100 women will develop vaginal cancer in her lifetime. The American Cancer Society’s estimates for vaginal cancer in the United States for 2019 are:
• About 5,350 new cases will be diagnosed.
• About 1,430 women will die of this cancer.

Visit the American Cancer Society’s Cancer Statistics Center\(^1\) for more key statistics.

**Hyperlinks**

1. [https://cancerstatisticscenter.cancer.org/](https://cancerstatisticscenter.cancer.org/)

**References**


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

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**What’s New in Vaginal Cancer Research?**

Because vaginal cancer is rare, it’s has been hard to study it well. Most experts agree that treatment in a clinical trial\(^1\) should be considered for any type or stage\(^2\) of vaginal cancer. This way women can get the best treatment available now and may also get the treatments that are thought to be even better. Many of the new and promising treatments discussed here are only available in clinical trials.

**Gene changes**

Scientists are learning more about how certain genes\(^3\) called oncogenes and tumor suppressor genes control cell growth and how changes in these genes cause normal vaginal cells to become cancer. They’re also studying how the gene changes caused by
HPV⁴ might be used to target treatment on the cancer cells.

**Radiation therapy**

Studies are under way to determine the best way to use external beam therapy⁵ and brachytherapy⁶ to treat vaginal cancer and limit damage to normal tissue. Doctors are also looking for ways to use more focused radiation along with other treatments, like immunotherapy⁷, to treat advanced vaginal cancers.

**Reconstructive surgery**

Surgeons are looking for new and better ways to repair the vagina after radical surgery⁸.

**Chemotherapy**

Many clinical trials are looking for better drugs to treat vaginal cancer, as well as if combining chemotherapy⁹ with radiation therapy is better than radiation therapy alone.

**Side effect management**

The vaginal walls can become stiff and tight after radiation¹⁰. Researchers are looking for ways to prevent this, limit it, and better treat it.

Removing lymph nodes¹¹ near the cancer can lead to a life-long problem of swelling in the legs called lymphedema¹². Studies are being done to see if sentinel lymph node mapping (a process used to identify lymph nodes with cancer) might work for women with vaginal cancer.

**Hyperlinks**


References

See all references for Vaginal Cancer ([www.cancer.org/cancer/vaginal-cancer/references.html](www.cancer.org/cancer/vaginal-cancer/references.html))

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Written by


Our team is made up of doctors and oncology certified nurses with deep knowledge of cancer care as well as journalists, editors, and translators with extensive experience in medical writing.

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Vaginal Cancer, Risk Factors, and Prevention

Risk Factors

A risk factor is anything that affects your chance of getting a disease such as cancer. Learn more about the risk factors for vaginal cancer.

- Risk Factors for Vaginal Cancer
- What Causes Vaginal Cancer?

Prevention

There’s no way to completely prevent cancer. But there are things you can do that might help lower your risk. Learn more here.

- Can Vaginal Cancer Be Prevented?

Risk Factors for Vaginal Cancer

A risk factor is anything that affects your chance of getting a disease such as cancer. Different cancers have different risk factors. Some risk factors, like smoking, can be changed. Others, like a person’s age or family history, can’t be changed.
But having a risk factor, or even many, does not mean that you will get the disease. And some people who get the disease may not have any known risk factors.

Scientists have found that certain risk factors make a woman more likely to develop vaginal cancer. But many women with vaginal cancer don’t have any clear risk factors. And even if a woman with vaginal cancer has one or more risk factors, it’s impossible to know for sure how much that risk factor contributed to causing the cancer.

**Age**

Squamous cell cancer of the vagina occurs mainly in older women. It can happen at any age, but few cases are found in women younger than 40. Almost half of cases occur in women who are 70 years old or older.

**Diethylstilbestrol (DES)**

DES is a hormone drug that was used from 1940 and 1971 to prevent miscarriage. Women whose mothers took DES when pregnant with them develop clear-cell adenocarcinoma of the vagina or cervix more often than would normally be expected. There’s about 1 case of this type of cancer in every 1,000 daughters of women who took DES during their pregnancy. This means that about 99.9% of DES daughters do not develop this cancer.

DES-related clear cell adenocarcinoma is more common in the vagina than the cervix. The risk appears to be greatest in those whose mothers took the drug during their first 16 weeks of pregnancy. Their average age when they are diagnosed is 19 years. Since the use of DES during pregnancy was stopped by the FDA in 1971, even the youngest DES daughters are older than 45 – past the age of highest risk. But a woman is not safe from a DES-related cancer at any age. Doctors don’t know exactly how long women remain at risk.

DES daughters have an increased risk of developing clear cell carcinomas, but women don’t have to be exposed to DES for clear cell carcinoma to develop. In fact, women were diagnosed with this type of cancer before DES was invented.

DES daughters are also more likely to have high grade cervical dysplasia (CIN 3) and vaginal dysplasia (VAIN 3) when compared to women who were never exposed.

You can learn more in [DES Exposure: Questions and Answers](https://www.cancer.org).
Vaginal adenosis

Normally, the vagina is lined by flat cells called squamous cells. In about 40% of women who have already started having periods, the vagina may have one or more areas lined instead by glandular cells. These cells look like those found in the glands of the cervix, the lining of the body of the uterus (the endometrium), and the lining of the fallopian tubes. These areas of gland cells are called adenosis. This occurs in nearly all women who were exposed to DES during their mothers’ pregnancy. Having adenosis increases the risk of developing clear cell carcinoma, but this cancer is still very rare. The risk of clear cell carcinoma in a woman who has adenosis that’s not related to DES is very, very small. Still, many doctors feel that any woman with adenosis should have very careful screening and follow-up.

Human papillomavirus

HPV is short for human papillomavirus. HPVs are a large group of related viruses. Each virus in the group is given a number, which is called an HPV type.

Certain HPV types have been linked with cancers of the cervix and vulva in women, cancer of the penis in men, and cancers of the anus and throat (in men and women). They’ve also been linked to VAIN, and HPV is found in most cases of vaginal cancer. These types are known as high-risk types of HPV and include HPV 16 and HPV 18, as well as others. Infection with a high-risk HPV may produce no visible signs until pre-cancerous changes or cancer develops.

Vaccines have been developed to help prevent infection with some types of HPV. See HPV4 for more information.

Cervical cancer

Having cervical cancer5 or pre-cancer (cervical intraepithelial neoplasia or cervical dysplasia) increases a woman’s risk of vaginal squamous cell cancer. This is most likely because cervical and vaginal cancers have much the same risk factors, such as HPV infection and smoking.

Some studies suggest that treating cervical cancer with radiation therapy may increase the risk of vaginal cancer, but this was not seen in other studies, and the issue remains unresolved.

Smoking
Smoking cigarettes more than doubles a woman’s risk of getting vaginal cancer.

Alcohol

Drinking alcohol might affect the risk of vaginal cancer. A study of alcoholic women found more cases of vaginal cancer than expected. But this study was flawed because it didn’t look at other factors that can alter risk, such as smoking and HPV infection. A more recent study that did take these other risk factors into account found a decreased risk of vaginal cancer in women who do not drink alcohol at all.

Human immunodeficiency virus

Infection with HIV (human immunodeficiency virus), the virus that causes AIDS, increases the risk of vaginal cancer.

Vaginal irritation

In some women, stretched pelvic ligaments may let the uterus sag into the vagina or even extend outside the vagina. This is called uterine prolapse. It can be treated with surgery or by wearing a pessary, a device to keep the uterus in place. Some studies suggest that long-term (chronic) irritation of the vagina in women using a pessary may slightly increase the risk of squamous cell vaginal cancer. But this is very rare, and no studies have clearly proven that pessaries cause vaginal cancer.

Hyperlinks

References


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What Causes Vaginal Cancer?

The exact cause of most vaginal cancers is not known. But scientists have found that it is linked to a number of conditions described in Risk Factors for Vaginal Cancer. Research is being done to learn more about how these risk factors cause cells of the vagina to become cancer.
Research has shown that normal cells make substances called \textit{tumor suppressor gene} products to keep from growing too rapidly and becoming cancers. High-risk \textit{HPV (human papillomavirus)} types (like 16 and 18) produce 2 proteins (E6 and E7) that can change the way known tumor suppressor gene products work.

Women exposed to \textit{diethylstilbestrol (DES)} as a fetus (that is, their mothers took DES during pregnancy) are at increased risk for developing clear cell carcinoma. DES also increases the likelihood of vaginal adenosis (gland-type cells in the vaginal lining rather than the usual squamous cells). Most women with vaginal adenosis never develop vaginal clear cell carcinoma. Still, those with a rare type of adenosis called \textit{atypical tuboendometrial adenosis} do have a higher risk of developing this cancer.

\textbf{Hyperlinks}

1. \url{www.cancer.org/cancer/cancer-causes/genetics/genes-and-cancer/oncogenes-tumor-suppressor-genes.html}
2. \url{www.cancer.org/cancer/cancer-causes/infectious-agents/hpv.html}
3. \url{www.cancer.org/cancer/cancer-causes/medical-treatments/des-exposure.html}

\textbf{References}

See all references for Vaginal Cancer (\url{www.cancer.org/cancer/vaginal-cancer/references.html})

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\textbf{Can Vaginal Cancer Be Prevented?}

The best way to reduce the risk of vaginal cancer is to avoid known \textit{risk factors} and to find and treat any vaginal pre-cancers. But since many women with vaginal cancer have no known risk factors, it’s not possible to completely prevent this disease.

\textbf{Avoid HPV infection}
Infection with human papillomavirus (HPV)\(^1\) is a risk factor for vaginal cancer. HPV infections occur mainly in younger women and are less common in women over 30. The reason for this is not clear.

HPV is passed from one person to another during skin-to-skin contact with an infected area of the body. HPV can be spread during sexual activity – including vaginal, anal, and oral sex – but sex doesn’t have to occur for the infection to spread. All that's needed is skin-to-skin contact with a part of the body infected with HPV. The virus can be spread through genital-to-genital contact. It's even possible for a genital infection to spread through hand-to-genital contact.

An HPV infection also seems to be able to be spread from one part of the body to another. This means that an infection may start in the cervix and then spread to the vagina and vulva.

HPV is very common, so having sex with even one other person can put you at risk. In most cases the body is able to clear the infection on its own. But in some cases the infection doesn't go away and becomes chronic. Over time, chronic infection, especially with high-risk HPV types, can cause certain cancers, including vaginal cancer and pre-cancer.

**Condom use**

Condoms (“rubbers”) provide some protection against HPV. Condoms cannot protect completely because they don’t cover every possible HPV-infected area of the body, such as skin on the genital or anal area. Still, condoms do provide some protection against HPV, and also protect against HIV and some other sexually transmitted diseases.

**HPV vaccines**

There are vaccines that protect against infection with certain types of HPV. These vaccines can only be used to prevent HPV infection – they don't help treat an existing infection. To work best, the vaccines should be given before a person is exposed to HPV (such as through sexual activity). These vaccines are approved to help prevent vaginal cancers and pre-cancers. They are also approved to help prevent others cancers, as well as anal and genital warts.

For more information about HPV and HPV vaccines, see [HPV (Human Papillomavirus)](https://www.cancer.org).

**Don’t smoke**
Not smoking is another way to lower vaginal cancer risk. Women who don’t smoke are also less likely to develop a number of other cancers, such as those of the lungs, mouth, throat, bladder, kidneys, and several other organs.

**Find and treat pre-cancers**

Most vaginal squamous cell cancers are believed to start out as pre-cancerous changes, called *vaginal intraepithelial neoplasia or VAIN*. VAIN may be present for years before turning into a true (invasive) cancer. Screening for cervical cancer (such as with a Pap test or HPV test) can sometimes pick up these pre-cancers. If a pre-cancer is found, it can be treated, stopping cancer before it really starts.

Still, since vaginal cancer and VAIN are rare, doctors seldom do other tests to look for these conditions in women who don’t have symptoms or a history of pre-cancer or cancer of the cervix, vagina, or vulva.

**How Pap tests and pelvic exams might help find VAIN**

Vaginal intraepithelial neoplasia (VAIN; pre-cancer of the vagina) may not be visible during a routine exam of the vagina. But it may be found with a Pap test. Because cervical cancer is much more common than vaginal cancer, Pap test samples are scraped or brushed from the cervix. But some cells of the vaginal lining are usually also picked up at the same time. That allows cases of VAIN to be found in women whose vaginal lining is not intentionally scraped. Still, the main goal of a Pap test is to find cervical pre-cancers and early cervical cancers, not vaginal cancer or VAIN.

In women whose cervix has been removed by surgery to treat cervical cancer or pre-cancer, Pap test samples may be taken from the lining of the upper vagina to look for cervical cancer that has come back, and to look for early vaginal cancer or VAIN. Vaginal cancer and VAIN are more common in women who have had cervical cancer or pre-cancer.

Many women with VAIN may also have a pre-cancer of the cervix (known as *cervical intraepithelial neoplasia or CIN*). If abnormal cells are seen on a Pap test, the next step is a procedure called *colposcopy*, in which the cervix, the vagina, and at times the vulva are closely examined with a special instrument called a *colposcope*.

**Hyperlinks**

5. www.cancer.org/healthy/find-cancer-early.html

References

See all references for Vaginal Cancer (www.cancer.org/cancer/vaginal-cancer/references.html)

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Vaginal Cancer Early Detection, Diagnosis, and Staging

Detection and Diagnosis

Finding cancer early, when it's small and hasn't spread, often allows for more treatment options. Some early cancers may have signs and symptoms that can be noticed, but that's not always the case.

- Can Vaginal Cancer Be Found Early?
- Signs and Symptoms of Vaginal Cancer
- Tests for Vaginal Cancer

Stages and Outlook (Prognosis)

After cancer is diagnosed, staging provides important information about the amount of cancer in the body and the likely response to treatment.

- Vaginal Cancer Stages
- Survival Rates for Vaginal Cancer

Questions to Ask About Vaginal Cancer

Here are some questions you can ask your cancer care team to help you better understand your cancer diagnosis and treatment options.

- Questions to Ask Your Doctor About Vaginal Cancer
Can Vaginal Cancer Be Found Early?

Sometimes vaginal cancer can be found early, when it's small and hasn't spread. It can cause symptoms that lead women to seek medical attention. But many vaginal cancers don't cause symptoms until they've grown and spread.

Pre-cancerous areas of vaginal intraepithelial neoplasia (VAIN) don't usually cause any symptoms.

Still, routine well-woman exams\(^1\) and cervical cancer screening\(^2\) can sometimes find cases of VAIN and early invasive vaginal cancer.

Hyperlinks


References


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Signs and Symptoms of Vaginal Cancer

When vaginal cancer is small and only in the cells lining the vagina, it may not cause symptoms. Invasive vaginal cancer tends to be bigger and has spread into nearby tissues, like deeper into the wall of the vagina. Most women with invasive vaginal cancer have one or more symptoms, such as:

- Abnormal vaginal bleeding (often after sex)
- Abnormal vaginal discharge
- A mass or lump in the vagina that can be felt
- Pain during sex

**Advanced vaginal cancer** has spread beyond the vagina to nearby structures and lymph nodes. Symptoms of advanced vaginal cancer may be:

- Painful urination
- Constipation
- Pain in the pelvis or low in the belly
- Back pain
- Swelling in the legs

Having these symptoms does not always mean that you have cancer. In fact, these symptoms are more likely to be caused by something besides cancer, like an infection. The only way to know what’s causing these problems is to see a health care professional.

If you have any of these symptoms, discuss them with a doctor right away. Remember, the sooner the problem is correctly diagnosed, the sooner you can start treatment, and the better the treatment will work.

**Hyperlinks**


**References**


Tests for Vaginal Cancer

If you have any of the signs or symptoms of vaginal cancer, you should see a doctor. If the Pap test shows abnormal cells, or if the pelvic exam results are not normal, more tests will be needed. This may mean referral to a gynecologist (a doctor who specializes in problems of the female genital system).

Medical history and physical exam

The first step is for the doctor to take a complete medical history. Risk factors and symptoms will be discussed. Then your doctor will physically examine you, including a pelvic exam and possibly a Pap test and/or a vaginal biopsy.

Colposcopy

If certain symptoms suggest cancer or if the Pap test shows abnormal cells, you will need a test called colposcopy. In this procedure you lie on the exam table and a speculum is placed in your vagina to keep it open -- just like a pelvic exam. The doctor will use a colposcope to examine the cervix and vagina. The colposcope stays outside the body and has magnifying lenses (like binoculars). When the doctor looks through the colposcope, he or she can see the vaginal walls and the surface of the cervix closely and clearly. Sometimes a weak solution of acetic acid (much like vinegar) or iodine is used to make any abnormal areas easier to see. Using a colposcope to look at the vagina is called vaginoscopy.

Colposcopy itself is no more painful than a regular pelvic exam and can be done safely even if you're pregnant. If an abnormal area is seen on the cervix or vagina, a biopsy will be done. The biopsy can be slightly painful and may cause pelvic cramping.

Biopsy

Certain signs and symptoms may strongly suggest vaginal cancer, but many of them can be caused by other problems. The only way to be certain that it's cancer is to do a
biopsy⁴. In this procedure, a small piece of tissue from the suspicious area is removed. A doctor specializing in diagnosing diseases with lab tests (a pathologist) will then look at the tissue sample under a microscope to see if cancer or a pre-cancerous condition is present and, if so, what type it is.

**Imaging tests**

**Imaging tests**² use x-rays, magnetic fields, sound waves, or radioactive substances to create pictures of the inside of your body. Imaging tests may be done after a diagnosis of vaginal cancer to learn more about the cancer and see if it has spread.

**Chest x-ray**

A plain x-ray³ of your chest may be done to see if the cancer has spread to your lungs.

**Computed tomography (CT) scan**

The computed tomography scan, most often called a CT or CAT scan,⁴ is an x-ray test that makes detailed cross-sectional images of your insides. Instead of taking one picture, like a standard x-ray, a CT scanner takes many pictures as it rotates around you. A computer then combines these pictures into an image of a slice of your body. A CT scan can provide information about the size, shape, and position of a tumor, and can be helpful to see if the cancer has spread to other organs. It can also help find enlarged lymph nodes⁵ that might have cancer cells.

**CT-guided needle biopsy:** CT scans can also be used to guide a biopsy⁶ needle into a suspected tumor. To do this, the patient lies on the CT scanning table, while a doctor moves a biopsy needle through the skin and toward the tumor. CT scans are repeated until the tip of the needle is inside the tumor. A small piece of the tumor is removed and looked at under a microscope. This isn't done to biopsy vaginal tumors, but it may be used to biopsy possible sites of cancer spread (metastases).

**Magnetic resonance imaging (MRI) scan**

Magnetic resonance imaging (MRI) scans⁷ use radio waves and strong magnets instead of x-rays to make images of the inside of your body. The energy from the radio waves is absorbed by your body and then released in a specific pattern formed by the type of tissue and by certain diseases. A computer translates the pattern into a detailed image of parts of the body. Like a CT scanner, this produce cross-sectional slices of your body. An MRI can also produce slices that are parallel with the length of your body.
MRI images are particularly useful in examining pelvic tumors. They may show enlarged lymph nodes\(^8\) in the groin. They are also helpful in finding cancer that has spread to the brain or spinal cord. (This rarely happens with vaginal cancer.)

**Positron emission tomography (PET) scan**

A positron emission tomography or PET scan\(^9\) uses a mildly radioactive sugar that’s put into your blood. Because cancer cells use sugar at a higher rate than normal cells, they absorb more of the radioactive sugar. The areas of radioactivity can be seen with a special camera.

The picture is not finely detailed like a CT or MRI scan, but it provides helpful information about your whole body. PET scans are not often used in women with early vaginal cancer, but they may be helpful in finding areas of cancer spread in more advanced cancers.

**Endoscopic tests**

These endoscopy procedures\(^10\) are not used often for women with vaginal cancer, but they may be needed in certain cases.

**Proctosigmoidoscopy**

This test may be done if the vaginal cancer is large and/or in the part of the vagina next to the rectum and colon. Proctosigmoidoscopy looks at the rectum and part of the colon. It’s done to check for spread of vaginal cancer to these organs. In this procedure a thin, flexible, lighted tube is put into the rectum. The doctor can look closely and the inside of the rectum and the last part of the colon to look for cancer spread. Any areas that look suspicious will be biopsied. This test may be somewhat uncomfortable, but it should not be painful.

**Cystoscopy**

Cystoscopy may be recommended if a vaginal cancer is large and/or is in the front wall of the vagina, near the bladder. This procedure allows the doctor to look at the inside of the bladder. It’s done to check for spread of vaginal cancer to the bladder. It can be done in the doctor’s office or clinic. You might be given an intravenous (IV) drug to make you drowsy. A thin tube with a lens and light is put into the bladder through the urethra. If suspicious areas or growths are seen, a biopsy will be done.
Hyperlinks

2. www.cancer.org/treatment/understanding-your-diagnosis/tests.html
7. www.cancer.org/treatment/understanding-your-diagnosis/tests/mri-for-cancer.html
10. www.cancer.org/treatment/understanding-your-diagnosis/tests/endoscopy.html

References


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Vaginal Cancer Stages

After a woman is diagnosed with vaginal cancer, doctors will try to figure out if it has spread, and if so, how far. This process is called staging. The stage of a cancer describes how much cancer is in the body. It helps determine how serious the cancer is and how best to treat it. Doctors also use a cancer’s stage when talking about survival statistics.

Vaginal cancer stages range from stage I (1) through IV (4). As a rule, the lower the number, the less the cancer has spread. A higher number, such as stage IV, means cancer has spread more. Although each person’s cancer experience is unique, cancers with similar stages tend to have a similar outlook and are often treated in much the same way.

How is the stage determined?

The 2 systems used for staging vaginal cancer, the FIGO (International Federation of Gynecology and Obstetrics) system and the AJCC (American Joint Committee on Cancer TNM staging system) are basically the same.

They both use 3 key pieces of information to stage (classify) this cancer:

- The extent (size) of the tumor (T): How large is the cancer and has it grown into the vaginal wall? Has the cancer reached nearby structures like the wall of the pelvis? (The pelvis is the internal cavity that contains the internal female reproductive organs, rectum, bladder, and parts of the large intestine.)
- The spread to nearby lymph nodes (N): Has the cancer spread to the lymph nodes in the pelvis or groin (inguinal) area?
- The spread (metastasis) to distant sites (M): Has the cancer spread to distant lymph nodes or distant organs?

Numbers or letters after T, N, and M provide more details about each of these factors. Higher categories mean the cancer is more advanced. Once a person’s T, N, and M categories have been determined, this information is combined in a process called stage grouping to assign an overall stage.

The staging system in the table primarily uses the clinical stage. This is based on the results of a physical exam, biopsy, and imaging tests done before surgery. Surgical staging is determined by examining tissue removed during an operation. For more on
The system described below is the most recent AJCC system, effective as of January 2018.

These systems are not used to stage vaginal melanoma, which is staged like melanoma of the skin. Information about melanoma staging can be found in [Melanoma Skin Cancer](#).

Vaginal cancer staging can be complex, so ask your doctor to explain it to you in a way you understand.

<table>
<thead>
<tr>
<th>AJCC Stage</th>
<th>Stage grouping</th>
<th>FIGO Stage</th>
<th>Stage description*</th>
</tr>
</thead>
<tbody>
<tr>
<td>IA</td>
<td>T1a N0 M0</td>
<td>I</td>
<td>The cancer is only in the vagina and is no larger than 2 cm (4/5 inch) (T1a). It has not spread to nearby lymph nodes (N0) or to distant sites (M0).</td>
</tr>
<tr>
<td>IB</td>
<td>T1b N0 M0</td>
<td>I</td>
<td>The cancer is only in the vagina and is larger than 2.0 cm (4/5 inch) (T1b). It has not spread to nearby lymph nodes (N0) or to distant sites (M0).</td>
</tr>
<tr>
<td>IIA</td>
<td>T2a N0 M0</td>
<td>II</td>
<td>The cancer has grown through the vaginal wall, but not as far as the pelvic wall and is no larger than 2.0 cm (4/5 inch) (T2a). It has not spread to nearby lymph nodes (N0) or to distant sites (M0).</td>
</tr>
<tr>
<td>IIB</td>
<td>T2b N0 M0</td>
<td>II</td>
<td>The cancer has grown through the vaginal wall, but not as far as the pelvic wall and is larger than 2.0 cm (4/5 inch) (T2b). It has not spread to nearby lymph nodes (N0) or to distant sites (M0).</td>
</tr>
<tr>
<td>III</td>
<td>T1 to T3 N1</td>
<td>III</td>
<td>The cancer can be any size and might be growing into the pelvic wall, and/or is growing into the lower 1/3 of the vagina, and/or has blocked the flow of urine (hydronephrosis) which is causing the kidneys to not work. (T1 to T3).</td>
</tr>
<tr>
<td>T</td>
<td>N</td>
<td>M</td>
<td>Stage</td>
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<tr>
<td>T0</td>
<td>N0</td>
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<td>IVA</td>
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<tr>
<td>T1</td>
<td>N0</td>
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<tr>
<td>T2</td>
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<tr>
<td>T3</td>
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<tr>
<td>T4</td>
<td>N0</td>
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<td>IVA</td>
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<tr>
<td>T4</td>
<td>N1</td>
<td>M0</td>
<td>IVB</td>
</tr>
<tr>
<td>T4</td>
<td>N2</td>
<td>M0</td>
<td>IVB</td>
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<tr>
<td>T4</td>
<td>N3</td>
<td>M0</td>
<td>IVB</td>
</tr>
<tr>
<td>T4</td>
<td>N4</td>
<td>M0</td>
<td>IVB</td>
</tr>
</tbody>
</table>

The following additional categories are not listed in the table above:

- **TX**: Main tumor cannot be assessed due to lack of information.
- **T0**: No evidence of a primary tumor.
- **NX**: Regional lymph nodes cannot be assessed due to lack of information.

**Hyperlinks**

3. [www.cancer.org/treatment/understanding-your-diagnosis/staging.html](http://www.cancer.org/treatment/understanding-your-diagnosis/staging.html)

**References**

Survival Rates for Vaginal Cancer

Survival rates can give you an idea of what percentage of people with the same type and stage of cancer are still alive a certain amount of time (usually 5 years) after they were diagnosed. They can’t tell you how long you will live, but they may help give you a better understanding of how likely it is that your treatment will be successful.

Keep in mind that survival rates are estimates and are often based on previous outcomes of large numbers of people who had a specific cancer, but they can’t predict what will happen in any particular person’s case. These statistics can be confusing and may lead you to have more questions. Talk with your doctor about how these numbers may apply to you, as he or she is familiar with your situation.

What is a 5-year relative survival rate?

A relative survival rate compares women with the same type and stage of vaginal cancer to women in the overall population. For example, if the 5-year relative survival rate for a specific stage of vaginal cancer is 80%, it means that people who have that cancer are, on average, about 80% as likely as people who don’t have that cancer to live for at least 5 years after being diagnosed.

Where do these numbers come from?

The American Cancer Society relies on information from the SEER* database, maintained by the National Cancer Institute (NCI), to provide survival statistics for different types of cancer.

The SEER database tracks 5-year relative survival rates for vaginal cancer in the United States, based on how far the cancer has spread. The SEER database, however, does not group cancers by FIGO or AJCC TNM stages (stage 1, stage 2, stage 3, etc.).
Instead, it groups cancers into localized, regional, and distant stages:

- **Localized**: The cancer is limited to the vaginal wall.
- **Regional**: The cancer has spread through the vaginal wall to nearby structures or lymph nodes.
- **Distant**: The cancer has spread to distant parts of the body such as the lungs, liver or bones.

### 5-year relative survival rates for vaginal cancer

(Based on women diagnosed with vaginal cancer between 2008 and 2014.)

<table>
<thead>
<tr>
<th>SEER Stage</th>
<th>5-Year Relative Survival Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Localized</td>
<td>66%</td>
</tr>
<tr>
<td>Regional</td>
<td>51%</td>
</tr>
<tr>
<td>Distant</td>
<td>19%</td>
</tr>
<tr>
<td>All SEER stages combined</td>
<td>47%</td>
</tr>
</tbody>
</table>

**Understanding the numbers**

- **These numbers apply only to the stage of the cancer when it is first diagnosed.** They do not apply later on if the cancer grows, spreads, or comes back after treatment.
- **These numbers don’t take everything into account.** Survival rates are grouped based on how far the cancer has spread, but your age, overall health, type of vaginal cancer\(^1\), how well the cancer responds to treatment, and other factors can also affect your outlook.
- **People now being diagnosed with vaginal cancer may have a better outlook than these numbers show.** Treatments improve over time, and these numbers are based on people who were diagnosed and treated at least five years earlier.

\(^*\)SEER= Surveillance, Epidemiology, and End Results

**Hyperlinks**

Questions to Ask Your Doctor About Vaginal Cancer

It’s important to have honest, open talks with your cancer care team. They want to answer all of your questions, no matter how minor you might think they are. Here are some of the questions you might want to ask:

- What kind of vaginal cancer\(^1\) do I have?
- Has the cancer spread beyond my vagina?
- What’s the stage of the cancer? What does this mean to me?
- What treatment choices\(^2\) do I have? What do you recommend? Why?
- What risks and side effects can I expect from treatment?
- Will I be able to have children after treatment?
- What should I do to be ready for treatment?
- Should I follow a special diet?
- Based on what you’ve learned about my cancer, what’s my prognosis (chances of survival)?
- What are the chances my cancer will recur (come back) with the treatment plans we have discussed?
- How long will it take me to recover from treatment?
- Will I be able to have sex after treatment? What reconstructive surgery, if any, will I need?

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References


See all references for Vaginal Cancer (www.cancer.org/cancer/vaginal-cancer/references.html)

Last Medical Review: March 19, 2018 Last Revised: February 28, 2019
• When can I go back to work after treatment?
• How many patients with vaginal cancer do you treat each year?
• Should I get a second opinion?[^3]
• Are there any clinical trials[^4] I should think about?

You will no doubt have other questions, too. Write them down so that you remember to ask them. Keep in mind, too, that doctors aren't the only ones who can provide you with information. Other health care professionals, such as nurses and social workers, may be able to answer your questions.

**Hyperlinks**


**References**

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

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**Written by**


Our team is made up of doctors and oncology certified nurses with deep knowledge of cancer care as well as journalists, editors, and translators with extensive experience in medical writing.

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Treating Vaginal Cancer

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.

- Laser Surgery for Vaginal Pre-Cancer
- Topical Therapy for Vaginal Pre-Cancer

Treatments for invasive vaginal cancer

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

- Radiation Therapy for Vaginal Cancer
- Surgery for Vaginal Cancer
- Chemotherapy for Vaginal Cancer

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 Associated With Cancer Care](#)

**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. Still, they're not right for everyone.

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

• Clinical Trials

Considering complementary and alternative methods

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

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

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

• Complementary and Alternative Medicine

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.

- Find Support Programs and Services in Your Area

**Choosing to stop treatment or choosing no treatment at all**

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

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

- If Cancer Treatments Stop Working
- Palliative or Supportive Care

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

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**Laser Surgery for Vaginal Pre-Cancer**

In laser surgery, a beam of high-energy light is used to vaporize the abnormal tissue. 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). It can be repeated, if needed, and rarely causes problems or side effects.

Still, 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 tested and it’s not invasive cancer.
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 applied directly to 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 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. It may be used once a week for 3 to 8 weeks. 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


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Radiation Therapy for Vaginal Cancer

Radiation therapy is the treatment most often used for vaginal cancer. It involves using high-energy rays (such as gamma rays or x-rays) or particles (such as electrons, protons, or neutrons) to kill cancer cells.

How is radiation given?

There are 2 ways to treat vaginal cancer with radiation - external beam radiation therapy, and intracavity brachytherapy (also called internal radiation therapy). Vaginal cancer is most often treated with a combination of both external and internal radiation with or without low doses of chemotherapy.
External beam radiation therapy

With this type of treatment, radiation is delivered from outside the body in a procedure that's a lot like getting an x-ray. It’s sometimes used along with chemotherapy to treat more advanced cancers. It can shrink tumors so they can be easier to remove with surgery. Radiation alone might be used to treat lymph nodes in the groin and pelvis.

Intracavitary brachytherapy

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

- **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 is used to help hold the cylinder in place, but you have to stay in bed in the hospital during the treatment.
- **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 in contact with 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 to form in the intestines (called *perforations*).

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 was 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 (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 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 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 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 to learn more.

**More information about radiation therapy**

To learn more about how radiation is used to treat cancer, see Radiation Therapy.

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

**Hyperlinks**


**References**


Surgery for Vaginal Cancer

Surgery is usually only used for small stage I or II 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.

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 VAIN\(^2\), 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 (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* is removal of the vagina along with the supporting tissues around it.

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* 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).

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.

In some cases, the connective tissue that surrounds and supports the uterus is also removed. This is called a radical hysterectomy. If you have a radical hysterectomy, you may need to have a catheter drain your bladder for a short time after surgery. This is because some of the nerves to the bladder can be damaged or removed.

In either case, there are 2 main ways to remove the uterus:

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

For abdominal hysterectomy, sometimes special procedures are used to avoid making a large cut in the abdomen:

- **Laparoscopic hysterectomy**: Often these surgeries are done through very small surgical incisions (cuts) on the abdomen. A laparoscope – a thin lighted tube with a camera that's put into one of the cuts – is used to see inside the abdomen and pelvis. Small instruments can be controlled through the tube or used in other small cuts to do the surgery. This allows surgeon to do the hysterectomy without making a large cut in the abdomen.
- **Robot-assisted surgery**: Many surgeries are also done using a robotic interface. For this, the surgeon sits at a panel near the operating table and controls tools on robotic arms to perform the operation 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's possible to reconstruct (rebuild) a vagina with tissue from another part of the body. This allows a woman 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* to learn more.
Surgery to remove lymph nodes (lymphadenectomy)

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

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 that doesn’t get better at night when you’re lying down. This is called lymphedema. This is more common if radiation is given after surgery. Chemotherapy after surgery is also linked to an increased risk.

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.

More information on preventing and managing this problem can be found in Lymphedema.

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 the woman places a catheter 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.

If the rectum and part of the colon are removed, a new way to remove 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. Sometimes it’s possible to remove a piece of the colon and then reconnect it. In that case, no bags are 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
radiation therapy. It's also sometimes needed to treat vaginal cancers when radiation therapy can't be used, for instance, if a woman has been treated with radiation for cervical cancer in the past. This because treating the same area with radiation more than once can cause severe problems.

**More information about Surgery**

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

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

**Hyperlinks**


**References**


Chemotherapy for Vaginal Cancer

How is chemo used to treat vaginal cancer?

Chemo uses anti-cancer drugs that may be given intravenously (into a vein), 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 is most often used along with radiation therapy to treat vaginal cancer.

Chemo is the main treatment for vaginal cancer that has spread. It can also help shrink tumors before surgery. When it's used before surgery, it may be given along with radiation to make the radiation work better.

Chemo drugs commonly used

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 woman'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
- Fluorouracil (5-FU)
- Paclitaxel (Taxol®)
- Docetaxel (Taxotere®)
- Irinotecan

**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 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.

**More information about chemotherapy**

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

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

**Hyperlinks**


**References**


Last Medical Review: March 19, 2018 Last Revised: March 19, 2018

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**Treatment Options for Vaginal Cancer by Stage and Type**

The type of treatment your cancer care team recommends depends on the type of vaginal cancer you have, how far the cancer has spread, your overall health, and your
preferences.

Because vaginal cancer is rare, it's has been hard to study it well. There are no "standard" treatments that experts agree on. Most experts agree that treatment in a clinical trial should be considered for any type or stage of vaginal cancer. This way women can get the best treatments available now and may also get the treatments that are thought to be even better.

Vaginal intraepithelial neoplasia (VAIN)

VAIN in a pre-cancerous change in cells of the vagina. 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 Pap tests, often with colposcopy, every few months. If the area of VAIN doesn't go away or gets worse, treatment is started.

VAIN 2 is less likely to go away on its own, so treatment may be started right away. Still, 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 sure that the area isn't invasive cancer. Surgery may involve a wide local excision, removing the abnormal area and a rim or edge of surrounding normal tissue. A partial vaginectomy (removing part of the vagina) is rarely needed to treat VAIN.

Stage 0 (also called VAIN 3 or carcinoma in situ [CIS])

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

Topical therapy with 5-FU cream or imiquimod is also an option, but this often means treatment at least weekly for about 10 weeks.

If the cancer comes back after these treatments, surgery (partial vaginectomy) might be needed.

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 all of the vagina** (partial or radical vaginectomy) might be needed depending on the size of the cancer and where it is in the vagina. Reconstructive surgery to create a new vagina after treatment of the cancer is an option if a large part of the vagina has been removed.

If the cancer is in the upper vagina, it may be treated with surgery, such as radical hysterectomy, bilateral radical pelvic lymph node removal, and/or radical or partial vaginectomy.

After radical partial or complete vaginectomy, radiation (external beam) may be used to treat cancer cells that might have spread to lymph nodes in 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**

The usual treatment is radiation, using both brachytherapy and external beam radiation.

Radical surgery (radical vaginectomy or pelvic exenteration) is an option for some women with stage II vaginal squamous cell cancer if it’s small and in the upper vagina. Radiation might be given after surgery. Surgery is also used to treat women who already had radiation therapy for cervical cancer and would have severe damage to normal tissues if more radiation was given.

If the tumor is in the lower third of the vagina, external radiation may be used to treat lymph nodes in the groin or pelvis.

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](http://www.cancer.org/cancer/vaginal-cancer/about/what-is-vaginal-cancer.html), often with both brachytherapy and external beam radiation. [Chemo](http://www.cancer.org/cancer/vaginal-cancer/about/what-is-vaginal-cancer.html) might be combined with radiation to help it work better. [Surgery](http://www.cancer.org/cancer/vaginal-cancer/about/what-is-vaginal-cancer.html) is rarely used.

**Stage IVB**

Since the cancer has spread to distant sites, it can’t be cured. [Radiation therapy](http://www.cancer.org/cancer/vaginal-cancer/about/what-is-vaginal-cancer.html) to the vagina and pelvis might be used to ease symptoms and reduce bleeding. [Chemo](http://www.cancer.org/cancer/vaginal-cancer/about/what-is-vaginal-cancer.html) might also be given with the radiation. Chemo alone has not been shown to help women live longer. Because there’s no standard treatment for this stage, the best option is to enroll in a [clinical trial](http://www.cancer.org/treatment/treatments-and-side-effects/clinical-trials.html).

**Recurrent squamous cell cancer or adenocarcinoma of the vagina**

If a cancer comes back after treatment it’s called [recurrent cancer](http://www.cancer.org/cancer/vaginal-cancer/about/what-is-vaginal-cancer.html). If it comes back in the same place it was the first time, it’s called a [local recurrence](http://www.cancer.org/cancer/vaginal-cancer/about/what-is-vaginal-cancer.html). If it comes back in another part of the body, like the liver or lungs, it’s called a [distant recurrence](http://www.cancer.org/cancer/vaginal-cancer/about/what-is-vaginal-cancer.html).

A local recurrence of a stage I or stage II vaginal cancer may be treated with radical [surgery](http://www.cancer.org/cancer/vaginal-cancer/about/what-is-vaginal-cancer.html) (such as pelvic exenteration). If the cancer was treated with surgery before, [radiation therapy](http://www.cancer.org/cancer/vaginal-cancer/about/what-is-vaginal-cancer.html) 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](http://www.cancer.org/cancer/vaginal-cancer/about/what-is-vaginal-cancer.html), although taking part in a [clinical trial](http://www.cancer.org/treatment/treatments-and-side-effects/clinical-trials.html) 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](http://www.cancer.org/cancer/vaginal-cancer/about/what-is-vaginal-cancer.html) may be used. Again, a clinical trial is a good option.

**Hyperlinks**


References


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

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After Vaginal Cancer Treatment

Living as a Cancer Survivor

For many people, cancer treatment often raises questions about next steps as a survivor.

- Living as a Vaginal Cancer Survivor

Cancer Concerns After Treatment

Treatment may remove or destroy the cancer, but it's very common to have questions about cancer coming back or treatment no longer working.

- Can I Get Another Cancer After Having Vaginal Cancer?

Living as a Vaginal Cancer Survivor

For many women with vaginal cancer, treatment can remove or destroy the cancer. The end of treatment can be both stressful and exciting. You may be relieved to finish treatment, yet it’s hard not to worry about cancer coming back. This is very common if you’ve had cancer.

For other women, the cancer might never go away completely. Some women may get regular treatment with chemotherapy or other treatments to try and help keep the cancer in check. Learning to live with cancer that doesn't go away can be difficult and
very stressful.

Life after cancer means returning to some familiar things and also making some new choices.

**Follow-up care**

When treatment ends, your doctors will still want to watch you closely. It’s very important to go to all of your follow-up appointments. During these visits, your doctors will ask questions about any problems you are having and may do pelvic exams and Pap tests, as well as colposcopy and lab tests to look for signs of cancer or treatment side effects. Almost any cancer treatment can have side effects. Some may last for a few weeks to months, but others can last the rest of your life. This is the time for you to talk to your cancer care team about any changes or problems you notice and any questions or concerns you have.

Treatment can leave vaginal tissue fragile and prone to injury. Follow-up will require checking these tissues for injury or tightening and scarring. Some women will be advised to use vaginal dilators, which a woman inserts in her vagina to gently stretch her vaginal tissue, gradually making it more elastic and normal over time. You can learn more in Treating Sexual Problems for Women With Cancer.

**Ask your doctor for a survivorship care plan**

Your survivorship care plan might include:

- A suggested schedule for follow-up exams and tests
- A schedule for other tests you might need in the future, such as early detection (screening) tests for other types of cancer, or tests to look for long-term health effects from your cancer or its treatment
- A list of possible late- or long-term side effects from your treatment, including what to watch for and when you should contact your doctor
- Diet and physical activity suggestions
- Reminders to keep your appointments with your primary care provider (PCP), who will monitor your general health care

**Keeping health insurance and copies of your medical records**
Even after treatment, it’s very important to keep health insurance. Tests and doctor visits cost a lot, and even though no one wants to think of their cancer coming back, this could happen.

At some point after your cancer treatment, you might find yourself seeing a new doctor who doesn’t know about your medical history. It’s important to keep copies of your medical records to give your new doctor the details of your diagnosis and treatment. Learn more in Keeping Copies of Important Medical Records.

**Can I lower my risk of the vaginal cancer progressing or coming back?**

If you have (or have had) vaginal cancer, you probably want to know if there are things you can do that might lower your risk of the cancer growing or coming back, such as exercising, eating a certain type of diet, or taking nutritional supplements. Unfortunately, it’s not yet clear if there are things you can do that will help.

Adopting healthy behaviors such as not smoking, eating well, getting regular physical activity, and staying at a healthy weight might help, but no one knows for sure. However, we do know that these types of changes can have positive effects on your health that can extend beyond your risk of vaginal cancer or other cancers.

**About dietary supplements**

So far, no dietary supplements (including vitamins, minerals, and herbal products) have been shown to clearly help lower the risk of vaginal cancer progressing or coming back. This doesn’t mean that no supplements will help, but it’s important to know that none have been proven to do so.

Dietary supplements are not regulated like medicines in the United States – they do not have to be proven effective (or even safe) before being sold, although there are limits on what they’re allowed to claim they can do. If you’re thinking about taking any type of nutritional supplement, talk to your health care team. They can help you decide which ones you can use safely while avoiding those that might be harmful.

**If the cancer comes back**

If the cancer does come back or recur at some point, your treatment options will depend on where the cancer is located, what treatments you’ve had before, and your overall health. For more information on how recurrent cancer is treated, see Treatment Options for Vaginal Cancer by Stage and Type.
For more general information on recurrence, you may also want to see Understanding Recurrence\(^\text{13}\).

**Could I get a second cancer after treatment?**

People who’ve had vaginal cancer can still get other cancers. In fact, vaginal cancer survivors are at higher risk for getting some other types of cancer. Learn more in [Can I Get Another Cancer After Having Vaginal Cancer?](#).

**Getting emotional support**

Some amount of feeling depressed, anxious, or worried is normal when cancer is a part of your life. Some people are affected more than others. But everyone can benefit from help and support from other people, whether friends and family, religious groups, support groups, professional counselors, or others. Learn more in [Life After Cancer](#).

**Hyperlinks**

2. [www.cancer.org/treatment/understanding-your-diagnosis/tests/understanding-your-lab-test-results.html](http://www.cancer.org/treatment/understanding-your-diagnosis/tests/understanding-your-lab-test-results.html)
Can I Get Another Cancer After Having Vaginal Cancer?

Cancer survivors can be affected by a number of health problems, but often their greatest concern is facing cancer again. If a cancer comes back after treatment it's called a recurrence. But some cancer survivors may develop a new, unrelated cancer later. This is called a second cancer. No matter what type of cancer you have had, it's still possible to get another (new) cancer, even after surviving the first.

Being treated for cancer doesn't mean you can’t get another cancer. And people who have had cancer can still get the same types of cancers that other people get. In fact, certain types of cancer and cancer treatments can be linked to a higher risk of certain second cancers.

Survivors of vaginal cancer can get any type of second cancer, but they have an increased risk of:

- Vulvar cancer

References


Last Medical Review: March 19, 2018 Last Revised: March 19, 2018
• **Esophagus cancer**
  • Cancer of the ureter (the tube that connects the kidney to the bladder)

They may have an increased risk of [lung cancer](#). The risk of [bladder cancer](#) is also increased in women who were treated with radiation.

These cancers are all linked to [smoking](#), which is also a risk factor for vaginal cancer. And both vaginal and vulvar cancer are linked to infection with [human papilloma virus (HPV)](#).

**Follow-up after treatment**

After completing treatment for vaginal cancer women will see their doctors regularly to look for signs of their cancer coming back, as well as signs of a new cancer of the vagina. Experts do not recommend extra testing to look for second cancers in women without symptoms. Let your doctor know about any new symptoms or problems, because they could be caused by the cancer coming back or by a new disease or second cancer.

Survivors of vaginal cancer should follow the [American Cancer Society guidelines for the early detection of cancer](#) and [stay away from tobacco products](#). Smoking increases the risk of many cancers, including the second cancers most often seen in women treated for vaginal cancer.

To help maintain good health, survivors should also:

• Get to and stay at a [healthy weight](#)
• Adopt a [physically active lifestyle](#)
• Eat a [healthy diet](#), with an emphasis on plant foods
• Limit [alcohol](#) to no more than 1 drink per day

These steps may also lower the risk of some cancers.

See [Second Cancers in Adults](#) for more on the causes of second cancers.

**Hyperlinks**

2. [www.cancer.org/treatment/treatments-and-side-effects/physical-side-](#)
effects/second-cancers-in-adults/intro.html

References

See all references for Vaginal Cancer (www.cancer.org/cancer/vaginal-cancer/references.html)

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