CONDITION

# Vaginal cancer

Vaginal cancer is cancer that begins in the tissues of the vagina.

**WHAT IT IS**
Cancer beginning in the vaginal tissues

**BODY SYSTEM**
Reproductive system

**MAIN SYMPTOMS**
Vaginal bleeding, unusual discharge, pelvic pain, vaginal lump

**WHAT CAUSES IT**
Persistent HPV infection, with some cases unexplained

**HOW IT IS DIAGNOSED**
Pelvic examination and tissue biopsy

**MAIN TREATMENT**
Radiation therapy, surgery, and sometimes chemotherapy

**CAN IT BE CURED?**
Sometimes - early cancers are more treatable

**IS IT AN EMERGENCY?**
Sometimes - uncontrolled bleeding or fainting

**LONG-TERM OUTLOOK**
Better when found early; advanced cancer is harder to cure

## Overview

Vaginal cancer begins in the vagina, the muscular passage connecting the cervix to the outside of the body. It is rare compared with cancers of the cervix, uterus, ovaries, or vulva.

Most vaginal cancers begin in the thin, flat cells lining the vagina. This type is called squamous cell carcinoma. Less common types include adenocarcinoma, which starts in gland-forming cells, and melanoma, which begins in pigment-producing cells. Sarcomas can develop from muscle or other supporting tissues but are uncommon.

Cancer found in the vagina is not always primary vaginal cancer. Cancer may spread there from the cervix, vulva, uterus, bladder, rectum, or another organ. A tumour involving the cervix or vulva may also be classified and treated as cancer of that nearby organ. Tests are needed to identify where it began.

Vaginal cancer matters because it can grow into nearby organs or spread to lymph nodes and other parts of the body. The stage, meaning how far the cancer has grown or spread, strongly affects treatment choices and the chance of controlling or curing it.

## Symptoms

Vaginal cancer may not cause symptoms when it is small. It is sometimes found during an examination or follow-up for abnormal cervical or vaginal cells.

Possible symptoms include:

These symptoms often have causes other than cancer, such as infection, vaginal dryness, polyps, or changes related to menopause. However, unexplained vaginal bleeding or discharge should be assessed rather than assumed to be harmless.

- Bleeding after sex, between periods, or after menopause
- Watery, blood-stained, or unpleasant-smelling vaginal discharge
- A lump, sore, or area of thickening in the vagina
- Pain during sex or ongoing pelvic pain
- Pain when urinating, blood in the urine, or difficulty urinating
- Constipation, pain when passing stool, or blood from the rectum

## Causes and risk factors

There is not always a clear reason why vaginal cancer develops. It begins when cells acquire changes that allow them to grow and survive abnormally.

Many squamous cell vaginal cancers are linked to long-lasting infection with a high-risk type of human papillomavirus, or HPV. HPV is a common virus passed through close sexual contact. Most infections clear without causing cancer. A persistent high-risk infection can sometimes lead to abnormal cells that become cancerous over several years.

Factors associated with a higher risk include:

A rare type called clear cell adenocarcinoma has been linked to exposure before birth to diethylstilbestrol, or DES. DES was once prescribed during pregnancy but is no longer used for this purpose in many countries.

Having a risk factor does not mean you will develop vaginal cancer. Some people have no recognised risk factors.

- Previous cervical or vulval precancer or cancer
- Vaginal intraepithelial neoplasia, or VAIN, meaning abnormal cells in the vaginal lining
- A weakened immune system, including from HIV or immune-suppressing treatment
- Smoking
- Increasing age
- Previous pelvic radiation therapy

## Diagnosis

Assessment usually begins with questions about bleeding, discharge, pain, previous abnormal cell tests, and past cancer treatment. A healthcare professional may examine the vulva and feel the abdomen and pelvis.

During a pelvic examination, a speculum is used to gently hold the vaginal walls apart so they can be seen. The vagina and cervix may then be examined with a colposcope, a magnifying instrument that provides a closer view.

A biopsy is needed to confirm vaginal cancer. During a biopsy, a small sample is removed from an abnormal area and examined under a microscope. Local anaesthetic may be used. A larger biopsy or examination under anaesthetic is sometimes needed if the area is difficult to reach or uncomfortable to examine.

If cancer is confirmed, further tests help establish its stage and plan treatment. These may include MRI, CT, or PET scans. A camera examination of the bladder or rectum may be recommended if the tumour is close to those organs.

The biopsy also identifies the cancer type. This is important because squamous cell carcinoma, adenocarcinoma, melanoma, and sarcoma may be treated differently.

## Treatment and management

Treatment is planned according to the cancer's type, stage, size, and position. Your general health, previous pelvic treatment, and preferences also matter. Care is usually coordinated by a team experienced in gynaecological cancers.

Radiation therapy is a main treatment for many vaginal cancers. External-beam radiation directs radiation at the tumour and nearby tissues from outside the body. Brachytherapy places a radiation source inside or close to the vagina for a limited time. These approaches may

be used together.

Chemotherapy may be given during radiation to make cancer cells more sensitive to it. This is called chemoradiation. Chemotherapy or other drug treatment may also be considered when cancer has spread, returned, or cannot be treated locally. The options depend partly on the cancer type and previous treatment.

Surgery may be suitable for selected small, early cancers, particularly when they are in a location that can be removed safely. An operation may remove the tumour with a margin of healthy tissue, part or all of the vagina, nearby lymph nodes, or other reproductive organs. Extensive surgery is uncommon but may be considered for some cancers that return after radiation.

Treatment can affect fertility, menopause, bladder or bowel function, and sexual health. Before treatment, you can ask about fertility preservation, vaginal reconstruction, menopause care, and ways to protect sexual comfort. Not every option is possible in every situation, but these concerns should be included in treatment planning.

Supportive care can help manage pain, bleeding, fatigue, nausea, and emotional distress at any stage. It can be given alongside treatment intended to cure or control the cancer.

## Complications

Vaginal cancer can grow into nearby tissues, including the cervix, vulva, bladder, rectum, or pelvic wall. It may also spread to lymph nodes or more distant organs.

Bleeding, pain, urinary problems, constipation, or blockage of urine flow can occur as a tumour grows. Treatment is available to ease these problems even when the cancer cannot be removed completely.

Possible longer-term effects of pelvic radiation include vaginal dryness, shortening or narrowing of the vagina, bowel or bladder irritation, pelvic bone weakness, and swelling of a leg caused by lymph fluid buildup. Surgery may change vaginal sensation, body image, fertility, or bladder and bowel function.

Vaginal moisturisers, lubricants, pelvic floor therapy, and vaginal dilators may help with some treatment effects. A dilator is a smooth device used to help keep the vagina flexible after radiation. It should be used only with instructions suited to your recovery.

Cancer and treatment can also affect mood, relationships, and sexual confidence. Specialist nurses, counsellors, sexual health professionals, and cancer support services can help.

## Prevention

Vaginal cancer cannot always be prevented. There is no routine screening test designed specifically for vaginal cancer in people at average risk.

HPV vaccination lowers the risk of infection with HPV types that cause many genital precancers and cancers. It prevents new infections but does not treat an HPV infection or abnormal cells that are already present.

Not smoking may reduce the chance that an HPV infection will persist and contribute to abnormal cell changes.

If you have had cervical or vulval precancer, cancer, VAIN, or DES exposure before birth, you may need follow-up tailored to that history. Attending recommended examinations and cell testing can help find abnormal changes before they become more serious. Routine cervical screening primarily looks for changes in the cervix; it does not rule out vaginal cancer.

## Living with it and what to expect

Treatment may last several weeks or months, depending on whether it involves radiation, chemotherapy, surgery, or a combination. Fatigue and pelvic symptoms can continue for a time after treatment ends. Recovery from surgery and radiation is gradual.

Follow-up commonly includes discussion of symptoms and examination of the vagina and pelvis. Scans or other tests may be used when symptoms or examination findings need investigation. Your follow-up schedule will reflect the cancer's stage, treatment, and local practice.

Some early vaginal cancers can be cured. Cancers that are larger, have reached nearby organs, or have spread elsewhere are harder to cure. Treatment may still shrink the cancer, slow its growth, relieve symptoms, and help maintain daily function. No individual course can be predicted from the stage alone.

You may need ongoing care for vaginal dryness or narrowing, early menopause, lymph swelling, bladder or bowel changes, or sexual discomfort. These effects do not have to be accepted without support.

Many people return to work, relationships, exercise, and usual activities, although the pace differs. If cancer is advanced or returns, it may be managed over time with further treatment and symptom-focused care.

## When to get medical help

Arrange a medical appointment promptly if you develop unexplained vaginal bleeding, especially after menopause or after sex. Persistent unusual discharge, a vaginal lump, pelvic pain, or new urinary or bowel symptoms also need assessment.

If you have been treated for vaginal cancer, report new bleeding, ongoing pelvic or back pain, leg swelling, unexplained weight loss, or changes in bladder or bowel function. These symptoms do not necessarily mean the cancer has returned, but they should be checked.

Seek urgent medical help for heavy or uncontrolled bleeding, severe worsening pain, inability to pass urine, or signs of infection such as fever with feeling very unwell.

Call emergency services if bleeding is accompanied by fainting, severe dizziness, confusion, breathing difficulty, or marked weakness.

## Common questions

Is vaginal cancer the same as cervical cancer?

No. Vaginal cancer begins in the vagina, while cervical cancer begins in the cervix. A cancer growing from the cervix into the vagina is generally classified as cervical cancer because treatment is based on where it started.

Can vaginal cancer be cured?

Sometimes. Cure is more likely when the cancer is small and has not spread beyond the vagina. Cancer that has reached nearby organs, lymph nodes, or distant parts of the body is more difficult to cure, although treatment may still control it.

Does vaginal bleeding mean I have cancer?

Usually not. Infection, hormonal changes, vaginal dryness, and non-cancerous growths are more common causes. Because bleeding can also be an early cancer symptom, unexplained bleeding should be assessed.

Is vaginal cancer caused by HPV?

Many squamous cell vaginal cancers are associated with persistent high-risk HPV infection, but not all are. Having HPV is common and does not mean that cancer will develop.

Can I have sex after vaginal cancer treatment?

Many people can, but treatment may cause dryness, soreness, narrowing, or changes in sensation. Healing time depends on the treatment. Lubricants, moisturisers, dilators, pelvic floor therapy, and sexual health support may help when medically appropriate.

Can vaginal cancer come back after treatment?

Yes, recurrence is possible. The risk is influenced by the cancer's type, stage, and response to treatment. Follow-up examinations are intended to monitor recovery, manage treatment effects, and investigate possible signs of recurrence.

## Sources

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