Vaginal Cancer

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What is Vaginal Cancer?

Vaginal cancer is a disease in which malignant (cancer) cells form in the vagina. The vagina is the canal leading from the cervix (the opening of uterus) to the outside of the body. At birth, a baby passes out of the body through the vagina (also called the birth canal).

Vaginal cancer is not common. There are two main types of vaginal cancer:

- **Squamous cell carcinoma:** Cancer that forms in squamous cells, the thin, flat cells lining the vagina. Squamous cell vaginal cancer spreads slowly and usually stays near the vagina, but may spread to the lungs, liver, or bone. This is the most common type of vaginal cancer.
- **Adenocarcinoma:** Cancer that begins in glandular cells. Glandular cells in the lining of the vagina make and release fluids such as mucus. Adenocarcinoma is more likely than squamous cell cancer to spread to the lungs and lymph nodes. A rare type of adenocarcinoma is linked to being exposed to diethylstilbestrol (DES) before birth. Adenocarcinomas that are not linked with being exposed to DES are most common in women after menopause.

What are the risk factors for vaginal cancer?

Anything that increases the chance of getting a disease is called a risk factor. Having a risk factor does not mean that you will get cancer; not having risk factors doesn't mean that you will not get cancer. Risk factors for vaginal cancer include the following:

- Being aged 60 or older
- Smoking
- Being exposed to DES while in the mother's womb. In the 1950s, the drug DES was given to some pregnant women to prevent miscarriage (premature birth of a fetus that cannot survive). Women who were exposed to DES before birth have an increased risk of vaginal cancer. Some women develop a rare form of vaginal cancer called clear cell adenocarcinoma.
- Having human papilloma virus (HPV) infection
- Pre-cancer conditions such as VAIN (vaginal intraepithelial neoplasia)
- HIV (human immunodeficiency virus)

What are the signs and symptoms of vaginal cancer?

Vaginal cancer often does not cause early signs or symptoms. It may be found during a routine pelvic exam and Pap test. Signs and symptoms may be caused by vaginal cancer or by other conditions:

- Bleeding or discharge not related to menstrual periods
- Pain during sexual intercourse
- Pelvic pain
- A lump in the vagina
- Pain when urinating
- Constipation

What tests are used to detect (find) and diagnose vaginal cancer?

The following tests and procedures may be used:

- **Physical exam and history**
- **Pelvic exam:** An exam of the vagina, cervix, uterus, fallopian tubes, ovaries, and rectum. A speculum is inserted into the vagina and the doctor or nurse looks at the vagina and cervix for signs of disease. A Pap test of the cervix is usually done. The doctor or nurse also inserts one or two lubricated, gloved fingers of one hand into the vagina and places the other hand over the lower abdomen to feel the size, shape, and position of the uterus and ovaries. The doctor or nurse also inserts a lubricated, gloved finger into the rectum to feel for lumps or abnormal areas.
- **Pap test:** A procedure to collect cells from the surface of the cervix and vagina. A piece of cotton, a brush, or a small wooden stick is used to gently scrape cells from the cervix and vagina. The cells are viewed under a microscope to find out if they are abnormal. This procedure is also called a Pap smear.
- **Colposcopy:** A procedure in which a colposcope (a lighted, magnifying instrument) is used to check the vagina and cervix for abnormal areas. Tissue samples may be taken using a curette (spoon-shaped instrument) or a brush and checked under a microscope for signs of disease.

- **Biopsy:** The removal of cells or tissues from the vagina and cervix so they can be viewed under a microscope by a pathologist to check for signs of cancer. If a Pap test shows abnormal cells in the vagina, a biopsy may be done during a colposcopy.

What determines vaginal cancer prognosis and treatment?

Certain factors affect prognosis (chance of recovery):

- The stage of the cancer (whether it is in the vagina only or has spread to other areas)
- The size of the tumor
- The grade of tumor cells (how fast the cancer cells are developing)
- Where the cancer is within the vagina
- Whether there are signs or symptoms at diagnosis
- Your age and general health
- Whether the cancer has just been diagnosed or has recurred (come back)

When found in early stages, vaginal cancer can often be cured. Treatment options depend on the following:

- The stage and size of the cancer
- Whether the cancer is close to other organs that may be damaged by treatment
- Whether the tumor is made up of squamous cells or is an adenocarcinoma
- Whether you have a uterus or have had a hysterectomy
- Whether you have had past radiation treatment to the pelvis

How does vaginal cancer spread?

Cancer can spread through tissue, the lymph system, and the blood:

- **Tissue.** The cancer spreads from where it began by growing into nearby areas.
- **Lymph system.** The cancer spreads from where it began by getting into the lymph system. The cancer travels through the lymph vessels to other parts of the body.
- **Blood.** The cancer spreads from where it began by getting into the blood. The cancer travels through the blood vessels to other parts of the body.

When cancer spreads to another part of the body, it is called metastasis. The metastatic tumor is the same type of cancer as the primary tumor. For example, if vaginal cancer spreads to the lung, the cancer cells in the lung are actually vaginal cancer cells. The disease is metastatic vaginal cancer, not lung cancer.

The process used to find out if cancer has spread within the vagina or to other parts of the body is called staging. The information gathered from the staging process determines the stage of the disease. It is important to know the stage in order to plan treatment. The following procedures may be used in the staging process:

- **Chest x-ray:** An x-ray of the organs and bones inside the chest. An x-ray is a type of energy beam that can go through the body and onto film, making a picture of areas inside the body.

- **CT scan (CAT scan):** A procedure that makes a series of detailed pictures of areas inside the body, taken from different angles. The pictures are made by a computer linked to an x-ray machine. A dye may be injected into a vein or swallowed to help the organs or tissues show up more clearly. This procedure is also called computed tomography, computerized tomography, or computerized axial tomography.
- **MRI (magnetic resonance imaging):** A procedure that uses a magnet, radio waves, and a computer to make a series of detailed pictures of areas inside the body. This procedure is also called nuclear magnetic resonance imaging (NMRI).
- **PET scan (positron emission tomography scan):** A procedure to find malignant tumor cells in the body. A small amount of radioactive glucose (sugar) is injected into a vein. The PET scanner rotates around the body and makes a picture of where glucose is being used in the body. Malignant tumor cells show up brighter in the picture because they are more active and take up more glucose than normal cells do.
- **Cystoscopy:** A procedure to look inside the bladder and urethra to check for abnormal areas. A cystoscope is inserted through the urethra into the bladder. A cystoscope is a thin, tube-like instrument with a light and a lens for viewing. It may also have a tool to remove tissue samples, which are checked under a microscope for signs of cancer.

- **Proctoscopy:** A procedure to look inside the rectum to check for abnormal areas. A proctoscope is inserted through the rectum. A proctoscope is a thin, tube-like instrument with a light and a lens for viewing. It may also have a tool to remove tissue to be checked under a microscope for signs of disease.
- **Biopsy:** A biopsy may be done to find out if cancer has spread to the cervix. A sample of tissue is removed from the cervix and viewed under a microscope. A biopsy that removes only a small amount of tissue is usually done in the doctor's office. A cone biopsy (removal of a larger, cone-shaped piece of tissue from the cervix and cervical canal) is usually done in the hospital. A biopsy of the vulva may also be done to see if cancer has spread there.

What are the stages used for vaginal cancer?

Stage 0

In vaginal intraepithelial neoplasia (VAIN), abnormal cells are found in tissue lining the inside of the vagina. VAIN may become cancer and spread into the vaginal wall. VAIN is sometimes called stage 0. These abnormal cells are **not cancer**. Vaginal intraepithelial neoplasia (VAIN) is grouped based on how deep the abnormal cells are in the tissue lining the vagina:

- **VAIN 1:** Abnormal cells are found in the outermost one third of the tissue lining the vagina.
- **VAIN 2:** Abnormal cells are found in the outermost two-thirds of the tissue lining the vagina.

- **VAIN 3:** Abnormal cells are found in more than two-thirds of the tissue lining the vagina. When abnormal cells are found throughout the tissue lining, it is called carcinoma in situ.

Stage I (1)

In stage I, cancer is found in the vaginal wall only.

Stage II (2)

In stage II, cancer has spread through the wall of the vagina to the tissue around the vagina. Cancer has not spread to the wall of the pelvis.

Stage III (3)

In stage III, cancer has spread to the wall of the pelvis.

Stage IV (4)

Stage IV is divided into stage IVA and stage IVB:

- **Stage IVA:** Cancer may have spread to one or more of the following areas:
  - The lining of the bladder
  - The lining of the rectum
  - Beyond the area of the pelvis that has the bladder, uterus, ovaries, and cervix
- **Stage IVB:** Cancer has spread to parts of the body that are not near the vagina, such as the lung or bone

Recurrent vaginal cancer

Recurrent vaginal cancer is cancer that has recurred (come back) after it has been treated. The cancer may come back in the vagina or in other parts of the body.

How is vaginal cancer treated?

Surgery

Surgery is the most common treatment of vaginal cancer. The following surgical procedures may be used:

- **Wide local excision:** A surgical procedure that takes out the cancer and some of the healthy tissue around it.
- **Vaginectomy:** Surgery to remove all or part of the vagina.
- **Total hysterectomy:** Surgery to remove the uterus, including the cervix. If the uterus and cervix are taken out through the vagina, the operation is called a vaginal hysterectomy. If the uterus and cervix are taken out through a large incision (cut) in the abdomen, the operation is called a total abdominal hysterectomy. If the uterus and cervix are taken out through a small incision in the abdomen using a laparoscope, the operation is called a total laparoscopic hysterectomy.
- **Lymph node dissection:** A surgical procedure in which lymph nodes are removed and a sample of tissue is checked under a microscope for signs of cancer. This procedure is also called lymphadenectomy. If the cancer is in the upper vagina, the pelvic lymph nodes may be removed. If the cancer is in the lower vagina, lymph nodes in the groin may be removed.
- **Pelvic exenteration:** Surgery to remove the lower colon, rectum, bladder, cervix, vagina, and ovaries. Nearby lymph nodes are also removed. Artificial

openings (stoma) are made for urine and stool to flow from the body into a collection bag. Skin grafting may follow surgery, to repair or reconstruct the vagina. Skin grafting is a surgical procedure in which skin is moved from one part of the body to another. A piece of healthy skin is taken from a part of the body that is usually hidden, such as the buttock or thigh, and used to repair or rebuild the area treated with surgery.

After the doctor removes all the cancer that can be seen at the time of the surgery, some women may be given radiation therapy after surgery to kill any cancer cells that are left. Treatment given after the surgery, to lower the risk that the cancer will come back, is called adjuvant therapy.

Radiation therapy

Radiation therapy is a cancer treatment that uses high-energy x-rays or other types of radiation to kill cancer cells or keep them from growing. The way radiation therapy is given depends on the type and stage of the cancer being treated. External and internal radiation therapy are used to treat vaginal cancer, and may also be used as palliative therapy to relieve symptoms and improve quality of life.

Chemotherapy

Chemotherapy is a cancer treatment that uses drugs to stop the growth of cancer cells, either by killing the cells or by stopping them from dividing. Topical chemotherapy for squamous cell vaginal cancer may be applied to the vagina in a cream or lotion.

Follow-up tests may be needed

Some of the tests that were done to diagnose the cancer or to find out the stage of the cancer may be repeated. It is extremely important to keep your follow-up appointments with your cancer provider. This will help show any early sign of cancer recurrence, and more testing can be ordered if needed.

Long-term clinical exams are very important. Check-ups will be frequent during the first year after surgery and less often after that.

Support is available for coping with changes that may have happened as a result of cancer treatment. Your healthcare team can offer ideas as well as a plan of care for long-term follow-up.

What are Clinical trials?

Clinical trials are done to find out if new cancer treatments are safe and effective or better than the standard treatment.

People who take part in a clinical trial may receive:

- The standard treatment alone or
- The standard treatment plus the new treatment being studied

Taking part in a clinical trial helps improve the way cancer will be treated in the future. Even when clinical trials do not lead to effective new treatments, they often answer important questions and help move research forward.

Many of today's standard treatments for cancer are based on earlier clinical trials.

Ask if there is a clinical trial right for you.

Some clinical trials only include people who have not yet received treatment. Other trials test treatments for those whose cancer has not gotten better. There are also clinical trials that test new ways to stop cancer from coming back or reduce the side effects of cancer treatment.

To learn more about vaginal cancer

- **American Cancer Society**
  https://www.cancer.org/
- **National Cancer Institute**
  https://www.cancer.gov/
- **National Comprehensive Cancer Network Guidelines for Patients**
  https://www.nccn.org/patients/guidelines/cancers.aspx
- **MedlinePlus**
  https://medlineplus.gov/

Common questions

What does the pathology report say?

What is the stage of my cancer?

What are my goals for treatment?

What are my treatment choices?

What kind of support services are available for me about finances, emotions, spiritual questions, etc.?

My Health Care Team	Contact Information
Surgeon:	
Medical Oncologist:	
Radiation Oncologist:	
Primary Care Doctor:	
Navigator:	
Nurse:	
Registered Dietitian Nutritionist:	
Other:	
Other:	
Other:	
Other:	

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