

VAGINAL CANCER

Risk Factors:

- Increasing age. Your risk of vaginal cancer increases as you age. Most women who are diagnosed with vaginal cancer are older than 50 years of age.
- Atypical cells in the vagina called vaginal intraepithelial neoplasia. Women with vaginal intraepithelial neoplasia (VAIN) have an increased risk of vaginal cancer. In women with VAIN, cells in the vagina appear different from normal cells, but not different enough to be considered cancer. A small number of women with VAIN will eventually develop vaginal cancer, though doctors aren't sure what causes some cases to develop into cancer and others to remain benign. VAIN is caused by the sexually transmitted human papillomavirus (HPV), which can cause cervical, vaginal and vulvar cancers, among others. Vaccines that prevent some types of HPV infection are available.
- Exposure to miscarriage prevention drug. Women whose mothers took a drug called diethylstilbestrol (DES) while pregnant in the 1950s have an increased risk of a certain type of vaginal cancer called clear cell adenocarcinoma.
- Other risk factors that have been linked to an increased risk of vaginal cancer include:
 - Multiple sexual partners
 - Early age at first intercourse
 - Smoking
 - HIV infection

Screening healthy women for vaginal cancer

Vaginal cancer is sometimes found during a routine pelvic exam before signs and symptoms become evident. During a pelvic exam, your doctor carefully inspects the outer exposed part of your vagina, and then inserts two fingers of one hand into your vagina and simultaneously presses the other hand on your abdomen to feel your uterus and ovaries. He or she also inserts a device called a speculum into your vagina. The speculum widens your vagina so that your doctor can check your vagina and cervix for abnormalities.

Your doctor may also do a Pap test. Pap tests are usually used to screen for cervical cancer, but sometimes vaginal cancer cells can be detected on a Pap test. Pap tests and pelvic exams are generally recommended every two to three years. How often you undergo these screenings depends on your risk factors for cancer and whether you've had abnormal Pap tests in the past. Talk to your doctor about how often you should have these health screenings.

Diagnosis

Your doctor may conduct a pelvic exam and Pap test to check for abnormalities that may indicate vaginal cancer. Based on those findings, your doctor may conduct other procedures to determine whether you have vaginal cancer, such as:

- Inspecting the vagina with a microscope. Colposcopy is an examination of your vagina with a special lighted microscope called a colposcope. Colposcopy allows your doctor to magnify the surface of your vagina to see any areas of abnormal cells.
- Removing a sample of vaginal tissue for testing. Biopsy is a procedure to remove a sample of suspicious tissue to test for cancer cells. Your doctor may take a biopsy of tissue during a colposcopy exam. Your doctor sends the tissue sample to a laboratory for testing.

Staging

Once your doctor diagnoses vaginal cancer, steps will be taken to determine the extent of the cancer — a process called staging. The stage of your cancer helps your doctor decide what treatments are appropriate for you. In order to determine the stage of your cancer, your doctor may use:

- Imaging tests. Your doctor may order imaging tests to determine whether cancer has spread. Imaging tests may include X-rays, computerized tomography (CT) scans, magnetic resonance imaging (MRI) or positron emission tomography (PET).
- Tiny cameras to see inside your body. Procedures that use tiny cameras to see inside your body may help your doctor determine if cancer has spread to certain areas. Cameras help your doctor see inside your bladder (cystoscopy) and your rectum (proctoscopy).
- Once your doctor determines the extent of your cancer, it is assigned a stage. The stages of vaginal cancer are:
 - Stage I. Cancer is limited to the vaginal wall.
 - Stage II. Cancer has spread to tissue next to your vagina.
 - Stage III. Cancer has spread to nearby lymph nodes or into the pelvis or both.
 - Stage IVA. Cancer has spread to nearby lymph nodes and has also spread to your bladder, rectum or pelvis.
 - Stage IVB. Cancer has spread to areas away from your vagina, such as your lungs.

Treatment

Your treatment options for vaginal cancer depend on several factors, including the type of vaginal cancer you have and its stage. You and your doctor work together to determine what treatments are best for you based on your goals of treatment and the side effects you're willing to endure. Treatment for vaginal cancer typically includes surgery and radiation.

Surgery

Surgery to remove the cancer is primarily used for early-stage vaginal cancer that's limited to the vagina or, in selected cases, nearby tissue. Because many important organs are located in your pelvis, surgery to remove larger tumors would require removal of these organs.

For this reason, your doctor may attempt to control your cancer through other treatment methods first. Types of surgery that may be used in women with vaginal cancer include:

- Removal of small tumors or lesions. Cancer limited to the surface of your vagina may be cut away, along with a small margin of surrounding healthy tissue to ensure that all of the cancer cells have been removed.
- Removal of the vagina (vaginectomy). Removing part of your vagina (partial vaginectomy) or your entire vagina (radical vaginectomy) may be necessary to remove all of the cancer. Depending on the extent of your cancer, your surgeon may recommend surgery to remove your uterus and ovaries (hysterectomy) and nearby lymph nodes (lymphadenectomy) at the same time as your vaginectomy.
- Removal of the majority of the pelvic organs (pelvic exenteration). This extensive surgery may be an option if cancer has spread throughout your pelvic area or if your vaginal cancer has recurred. During pelvic exenteration, the surgeon removes many of the organs in your pelvic area, including your bladder, ovaries, uterus, vagina, rectum and the lower portion of your colon. Openings are created in your abdomen to allow urine (urostomy) and waste (colostomy) to exit your body and collect in ostomy bags.

If your vagina is completely removed, you may choose to undergo surgery to construct a new vagina. Surgeons use pieces of skin, sections of intestine or flaps of muscle from other areas of your body to form a new vagina. With some adjustments, a reconstructed vagina allows you to have vaginal intercourse.

However, a reconstructed vagina isn't the same as your own vagina. For instance, a reconstructed vagina lacks natural lubrication and creates a different sensation when touched due to changes in surrounding nerves.

Radiation therapy

Radiation therapy uses high-powered energy beams, such as X-rays, to kill cancer cells. Radiation can be delivered two ways:

- External radiation. External beam radiation is directed at your entire abdomen or just your pelvis, depending on the extent of your cancer. During external beam radiation, you're positioned on a table and a large radiation machine is maneuvered around you in order to target the treatment area. Most women with vaginal cancer receive external beam radiation.
- Internal radiation. During internal radiation (brachytherapy), radioactive devices — seeds, wires, cylinders or other materials — are placed in your vagina or the surrounding tissue. After a set number of days, the devices are removed. Women with very early-stage vaginal cancer may receive internal radiation only. Other women may receive internal radiation after undergoing external radiation.

Radiation therapy kills quickly growing cancer cells, but it may also damage nearby healthy cells, causing side effects. Side effects of radiation depend on the radiation's intensity and where it's aimed.

Other options

If surgery and radiation can't control your cancer, you may be offered other treatments, including:

- Chemotherapy. Chemotherapy uses chemicals to kill cancer cells. It isn't clear whether chemotherapy is useful in women with vaginal cancer. For this reason, chemotherapy generally isn't used on its own to treat vaginal cancer. Chemotherapy may be used during radiation therapy to enhance the effectiveness of radiation.
- Clinical trials. Clinical trials are experiments to test new treatment methods. While a clinical trial gives you a chance to try the latest treatment advances, a cure isn't guaranteed. Discuss available clinical trials with your doctor to better understand your options, or contact the National Cancer Institute or the American Cancer Society to find out what clinical trials might be available to you.