What is cancer of the cervix?

A woman's cervix (the opening of the uterus at the top of the vagina) is covered by a thin layer of tissue made up of cells. Healthy cells grow, divide, and are replaced as needed. Cancer of the cervix occurs when these cells change. Cancer cells divide more rapidly. They may grow into deeper cell layers or spread to other organs. The cancer cells eventually form a mass of tissue called a tumor.

How long does it take for cervical cancer to develop?

It often takes several years for cervical cancer to develop. During this time, the cells on or around the cervix become abnormal. The early cell changes that occur before cancer is present are called dysplasia or cervical intraepithelial neoplasia (CIN).

What is the main cause of cervical cancer?

The main cause of cervical cancer is human papillomavirus (HPV) infection. There are many types of HPV. Some types of HPV, called "high-risk types," can cause cancer of the anus, cervix, vulva, vagina, and penis. They also can cause cancer of the head and neck. Other types have been linked to genital warts.

How can I prevent human papillomavirus infection?

A vaccine is available that can prevent infection with HPV. The vaccine protects against the HPV types that are the most common cause of cancer, precancer, and genital warts. The ideal age for HPV vaccination is age 11 years or 12 years, but
it can be given starting at age 9 years and through age 26 years. See FAQ191 Human Papillomavirus (HPV) Vaccination for details.

**Who is at risk of cervical cancer?**

The most important risk factor for cervical cancer is infection with the types of HPV linked to cancer. The following factors increase your risk of becoming infected with HPV:

- Multiple sexual partners
- Having a male sexual partner who has had multiple sexual partners
- Early age at which you first had sex (younger than 18 years)

Other risk factors include the following:

- A personal history of dysplasia of the cervix, vagina, or vulva
- A family history of cervical cancer
- Smoking
- Certain sexually transmitted infections (STIs), such as chlamydia
- Problems with the immune system
- Having a mother who took a drug called diethylstilbestrol (DES) during pregnancy

**Is there a screening test for cervical cancer?**

Yes. The **Pap test** checks for abnormal cell changes of the cervix (see FAQ085 Cervical Cancer Screening). This allows for early treatment so the abnormal cells do not become cancer. An HPV test also is available. It is used along with the Pap test to screen for cervical cancer in some women and as a follow-up test when a woman has an abnormal Pap test result.

**What are some of the symptoms of cervical cancer?**

The first signs may be abnormal bleeding, spotting, or watery discharge from the vagina. Menstrual bleeding may be heavier than usual, and bleeding may occur after sex. Signs of advanced cancer can include pelvic pain, problems urinating, and swollen legs. If the cancer has spread to nearby organs or the **lymph nodes**, the tumors can affect how those organs work. For instance, a tumor might press on your **bladder** or block blood flow in a vein.

**How is cervical cancer diagnosed?**

If your health care professional suspects that you have cancer of the cervix, a **biopsy** may be done. For certain abnormal Pap test results that require treatment, the abnormal cervical tissue may be removed and sent to a lab to be studied.

If cervical cancer is diagnosed, your health care professional will assess the size of the cancer and the extent (if any) to which the disease has spread. This process may include the following tests:

- A pelvic exam (which may include a rectal exam)—An examination in which your health care professional checks the uterus, ovaries, and other organs near the cervix
- Cystoscopy—A test in which the inside of the **urethra** and bladder are studied with a lighted device
- Colonoscopy—A test in which the entire colon is examined with a slender, lighted instrument called a colonoscope

**What is staging?**

“Staging” is the process of finding out how much the cancer has spread. Most types of cancer have stages from I to IV. The lower the number, the less the cancer has spread.

Some types of cancer, including cervical cancer, have a Stage 0. Stage 0 also is called noninvasive cervical cancer or carcinoma in situ (CIS). In Stage 0, cancer cells are present on the top layer of the cervix only. They have not gone into deeper layers of the cervical tissue or other organs. The remaining stages are called invasive cancer. In these stages, the cancer has invaded into deeper layers of the cervix.

**What are the types of treatment?**

Treatment options for cervical cancer may include surgery (**hysterectomy**), **radiation therapy**, and **chemotherapy** (the use of cancer-killing drugs). The type of treatment chosen depends on the cancer stage. You may receive more than one type of treatment.

**Is special follow-up required after treatment?**

Your health care professional may suggest more frequent cervical cancer screening tests for the first few years after treatment to make sure that all the cancer cells were removed. Even if your cervix has been removed to treat your cancer, you still need cervical cancer screening. Cells are taken from the upper vagina instead of the cervix.

**Glossary**

*Biopsy*: A minor surgical procedure to remove a small piece of tissue. This tissue is examined under a microscope in a laboratory.
Bladder: A hollow, muscular organ in which urine is stored.

Cells: The smallest units of a structure in the body. Cells are the building blocks for all parts of the body.

Cervical Intraepithelial Neoplasia (CIN): Abnormal changes in the cells of the cervix that are caused by infection with human papillomavirus (HPV). CIN is graded as 1 (low grade), 2 (moderate), or 3 (high grade).

Cervix: The lower, narrow end of the uterus at the top of the vagina.

Chemotherapy: Treatment of cancer with drugs.

Dysplasia: A noncancerous condition that happens when normal cells are replaced by a layer of abnormal cells.

Hysterectomy: Surgery to remove the uterus.

Immune System: The body's natural defense system against viruses and bacteria that cause disease.

Lymph Nodes: Small groups of special tissue that carry lymph, a liquid that bathes body cells. Lymph nodes are connected to each other by lymph vessels. Together, these make up the lymphatic system.

Ovaries: Organs in women that contain the eggs necessary to get pregnant and make important hormones, such as estrogen, progesterone, and testosterone.

Pap Test: A test in which cells are taken from the cervix (or vagina) to look for signs of cancer.

Radiation Therapy: Treatment with radiation.

Sexually Transmitted Infections (STIs): Infections that are spread by sexual contact. Infections include chlamydia, gonorrhea, human papillomavirus (HPV), herpes, syphilis, and human immunodeficiency virus (HIV, the cause of acquired immunodeficiency syndrome [AIDS]).

Urethra: A tube-like structure. Urine flows through this tube when it leaves the body.

Uterus: A muscular organ in the female pelvis. During pregnancy, this organ holds and nourishes the fetus.

Vagina: A tube-like structure surrounded by muscles. The vagina leads from the uterus to the outside of the body.

If you have further questions, contact your obstetrician–gynecologist.

FAQ163: This information was designed as an educational aid to patients and sets forth current information and opinions related to women’s health. It is not intended as a statement of the standard of care, nor does it comprise all proper treatments or methods of care. It is not a substitute for a treating clinician’s independent professional judgment. Please check for updates at www.acog.org to ensure accuracy.

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