Cancer

Cervical Cancer

What is cervical cancer?

Cervical cancer develops when cells grow out of control in the uterine cervix. The cervix is the lower part of the uterus (womb), connecting the uterus to the vagina. The most common type of cervical cancer is squamous cell carcinoma. Almost all cases of cervical cancer are caused by human papillomavirus (HPV). When found early during regular screening, treatment is generally effective and many people with this cancer can be cured. More advanced disease is harder to treat.

Who gets cervical cancer?

Cervical cancer is the third most common malignancy in women worldwide and is a leading cause of cancer-related death for women in developing countries. In the United States, however, cervical cancer is relatively uncommon. Just over 12,800 new cases of cervical cancer are diagnosed annually and about 4,200 women die from it, according to the American Cancer Society.

Cervical cancer rates in the United States have dropped by about 70 percent over the past 50 years as a result of widespread screening with Pap tests, which detect abnormal precancerous cells and allow for early treatment. Wider use of the HPV vaccine in recent years has also contributed to the decline.

Cervical cancer usually develops in midlife, with most cases occurring among women younger than 50, although more than 15 percent of cases occur in women older than 65. This cancer is rarely seen in women younger than 20. Latina or Hispanic women are most likely to get cervical cancer, followed by African Americans, Asians and Pacific Islanders, whites and Native Americans.

What are the risk factors for cervical cancer?

The main cause of cervical cancer is HPV infection. There are more than 100 types of HPV, but only a small number are linked to cancer; some other HPV types cause genital warts. About a dozen types are considered high-risk, or cancer-causing. Two types in particular, 16 and 18, are responsible for about 70 percent of all cervical cancers. Sexual contact is a common way to get HPV, but this can also occur through nonsexual skin-to-skin contact.

Other risk factors for cervical cancer include smoking, having chlamydia (a sexually transmitted infection), giving birth multiple times, oral contraceptive use, , being overweight and a family history of cervical cancer.

Cervical cancer and other cancers linked to HPV infection can be prevented with vaccines that protect against the more dangerous HPV types. Regular screening throughout adult life can detect abnormal changes in cervical cells, allowing for treatment to stop cancer from developing.

What are the symptoms of cervical cancer?

Cervical cancer often does not cause any signs or symptoms during its early stages. Many women with cervical disease do not develop symptoms until later stages, after the cancer grows into surrounding tissues and organs, a process known as metastasis.

Symptoms that may suggest cervical cancer but could also be due to other health conditions should, and which should be checked by a doctor or nurse, include:

- Increased discharge from the vagina
- A change in the color or odor of vaginal discharge
- Vaginal bleeding between periods
- Vaginal bleeding after menopause
- Pain during sexual intercourse
- Bleeding after sex
- Difficulty urinating or loss of bladder control

Other symptoms that may occur with more advanced cervical cancer include:

- Blood in the urine or stool
- Constipation
- Leaking of urine or feces from the vagina
- Swelling in the legs
- Low red blood cell count (anemia)
- Loss of appetite and weight loss

How is cervical cancer diagnosed?

Early detection and treatment of cervical cancer increases the likelihood of long-term survival. Routine cervical screening involves Pap tests and tests for human papillomavirus (HPV), a virus that causes abnormal cell growth and cervical cancer. In a Pap test, a doctor or nurse scrapes a small sample of cells from the cervix to examine in a laboratory for abnormal cell changes.

If a Pap test shows abnormal cell growth, a detailed examination of the cervix may be done using a lighted magnifying device called a colposcope to look for abnormal tissue—known as dysplasia

or neoplasia—that could progress to invasive cancer. In some cases, precancerous tissue can be removed or destroyed before cancer develops. A biopsy, or small tissue sample, may be taken for further laboratory examination. If cancer is more advanced, imaging tests including X-rays, computed tomography (CT), positron emission tomography (PET) or MRI scans may be done to check how much it has spread.

How is cervical cancer treated?

Treatment for cervical cancer depends on how advanced the cancer is when it is detected and whether it has spread to nearby lymph nodes and other parts of the body.

Precancer treatment: Areas of abnormal cells (dysplasia or neoplasia) may be cut out or destroyed using lasers, freezing (cryotherapy) or topical medications before they progress to cancer.

Surgery: A simple hysterectomy, or removal of the uterus, may be an option for early-stage cervical cancer that has not spread. A radical hysterectomy, or removal of the uterus, part of the vagina and local lymph nodes, is used for more advanced cancer. After a hysterectomy a woman cannot become pregnant.

Radiation therapy: Radiation may be used to kill cancer cells that remain after surgery or to shrink tumors that cannot be surgically removed.

Chemotherapy: Traditional chemotherapy works by killing fast-growing cells, including cancer cells. It can also destroy rapidly dividing healthy cells, such as those in the gut or hair follicles, leading to side effects that include nausea and hair loss.

Targeted therapy: Targeted drugs work against cancers with specific characteristics. For example, they may interfere with signaling pathways that regulate cell growth or block development of new blood vessels to supply tumors. Targeted treatment is often better tolerated than chemotherapy, but cancer may develop resistance over time.

Immunotherapy: Immunotherapy helps the immune system target cancer. For example, some tumors can turn off immune responses against them, and drugs known as checkpoint inhibitors can restore T cells' ability to recognize and destroy cancer cells.

For more information on cervical cancer, visit:

American Cancer Society

National Cancer Institute

For more information about cervical cancer, please visit our sister site Cancer Health.

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