

Cervical Cancer

Cervical Squamous Cell Carcinoma

What is cervical squamous cell carcinoma?

According to the American Cancer Society, in 2010 more than 12,200 American women will be diagnosed with invasive cervical cancer. Squamous cell carcinoma is the most common type of cervical cancer. More than 4,200 women die from cervical cancer each year, but the death rate has been declining by about 4 percent a year. The main reason for this decline is the increased use of the Pap test, which can detect pre-cancerous cells or early-stage cancers when they can be treated most effectively. The five-year survival rate for patients with very early-stage cervical cancer is more than 95 percent.

Who is most likely to have cervical squamous cell carcinoma?

About half of the women diagnosed with cervical squamous cell carcinoma are in midlife and about 20 percent are over age 65. Precursor lesions may be found at any age once sexual activity has begun. For these reasons, having regular Pap tests throughout life is important.

Definitions

Carcinoma:

A type of malignant tumor. It may be in situ (see below), or invasive.

Carcinoma in situ:

A condition that may precede cancer (precursor) and may progress to invasive carcinoma. Carcinoma-in-situ cannot spread to other areas of the body (metastasize), but it still needs to be removed to prevent the development of invasive carcinoma.

Cervix:

The narrow, lower section of the womb (uterus) connected to the birth canal (vagina). The outer surface (exocervix) is lined by squamous cells (a covering similar to skin).

Endocervix:

The internal part of the cervix lined by glandular cells.

Pathologist:

A physician who examines tissues and fluids to diagnose disease in order to assist in making treatment decisions.

The most important risk factor for cervical squamous cell carcinoma is persistent HPV (human papillomavirus) infection, and progression of a pre-cancerous lesion. Not having regular Pap tests is also an important risk factor. Over half of women developing an invasive cervical carcinoma have never had a Pap test, and 10 percent have not had a Pap test in the last five years. Regular Pap tests, which now may be combined with testing for the high-risk types of HPV in women, are currently the best defense against the development of cervical carcinoma. Other risk factors include a family history of cervical cancer, smoking, use of oral contraceptives, multiple pregnancies, and a weakened immune system caused by human immunodeficiency virus (HIV)/ AIDS, or immune suppressing drugs such as those used to treat organ transplant patients.

What characterizes cervical squamous cell carcinoma?

Cervical cells may become pre-cancerous due to the effects of a persistent HPV infection. In a small number of cases, and over a long period of time, usually at least 10 years, pre-cancerous cells may become capable of invasion. There are two types of cervical carcinoma based on the microscopic appearance of the cancer; squamous cell carcinoma accounts for 80 to 90 percent of all cervical cancers, with adenocarcinoma making up 10 to 20 percent. Sometimes, cancers have characteristics of both types; these malignancies are called adenosquamous carcinomas or mixed carcinomas.

Early-stage cervical squamous cell carcinoma may not present symptoms; later-stage cancers can cause abnormal vaginal bleeding, increased vaginal discharge, pelvic pain, or pain during sexual intercourse.

How does a pathologist diagnose cervical squamous cell carcinoma?

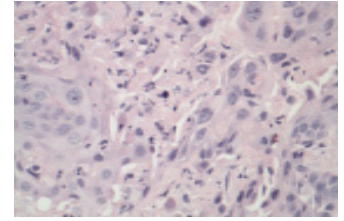
The cytotechnologist and pathologist examine a Pap test specimen under a microscope for precancerous cells or malignancies. A cytotechnologist is a laboratory technologist specially trained in the methods of detecting disease by the examination of cells and tissues. These individuals perform initial evaluations of cytology specimens, such as Pap tests, and identify potential abnormalities, which require further evaluation by pathologists.

If the Pap test is positive, a *colposcopy* or *biopsy* is usually necessary. During a colposcopy procedure, a primary care doctor or nurse closely examines the surface of the cervix using a lighted magnifying instrument. A tissue sample (biopsy) is gathered from the cervix for the pathologist to examine under a microscope.

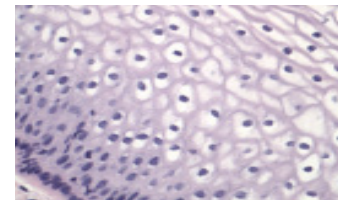
What is meant by the stage of the cancer?

Stage 0 is the pre-cancerous or in-situ stage. Stage 1 cervical squamous cell carcinomas are small and confined to the cervix, and stage 4 tumors have spread beyond the cervix. Stages 2 and 3 describe conditions in between these two extremes.

For more information, go to www.cancer.gov (National Cancer Institute) or www.cancer.org (American Cancer Society). Type the keywords cervical cancer or cervical squamous cell carcinoma or into the search box.



Invasive squamous cell carcinoma is characterized by malignant cells forming cohesive nests.



Normal cervical cells.



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