Abnormal Pap Smear

The Pap test (also called a Pap smear) is a way to examine cells collected from the cervix and vagina. This test can show the presence of infection, inflammation, abnormal cells, or cancer.

Regular Pap tests are an important step to the prevention of cervical cancer. Approximately 15,000 American women are diagnosed with cervical cancer each year and about 5,000 die of the disease. In areas of the world where Pap tests are not widely available, cervical cancer is a leading cause of cancer deaths in women. A Pap smear can assist your doctor in catching cervical cancer early. Early detection of cervical dysplasia (abnormal cells on the cervix) and treatment are the best ways to prevent the development of cervical cancer.

What do abnormal Pap smear results mean?
Abnormal Pap smear results can indicate mild or serious abnormalities. Most abnormal cells on the surface of the cervix are not cancerous. It is important to remember that abnormal conditions do not always become cancerous, and some conditions are more of a threat than others. There are several terms that may be used to describe abnormal results.

• **Dysplasia** is a term used to describe abnormal cells. Dysplasia is not cancer, although it may develop into cancer of the cervix if not treated. The cells look abnormal under the microscope, but they do not invade nearby healthy tissue. There are two degrees of dysplasia, classified as low grade or high grade, depending on how abnormal the cells appear under the microscope. (An older classification system described abnormal cells as mild, moderate, or severe).

• **Squamous intraepithelial lesion (SIL)** is another term that is used to describe dysplastic changes. The word squamous describes cells which are thin, flat, and lie on the outer surface of the cervix. The word lesion refers to abnormal tissue. An intraepithelial lesion means that the abnormal cells are present only in the surface layers of the cells. A doctor may describe SIL as being low-grade (early changes in the size, shape, and number of cells) or high-grade (a large number of precancerous cells that look very different from normal cells).

• **Cervical intraepithelial neoplasia (CIN)** is another term that is sometimes used to describe abnormal cells. Neoplasia means a new abnormal growth of cells. Intraepithelial refers to the surface layers of the cells. The term CIN, along with a number (1 to 3) describes how much of the cervix contains abnormal cells.
Carcinoma-in-situ describes a pre-invasive cancer that involves only the surface cells and has not spread into deeper tissues. Cervical cancer, or invasive cervical cancer, occurs when abnormal cells spread deeper into the cervix or to other tissues or organs. It is important to remember that carcinoma-in-situ is not cervical cancer.

Milder abnormalities are often referred to as ASCUS (atypical squamous cells of undetermined significance) and LSIL (low-grade squamous intraepithelial lesions). At present, many physicians recommend immediate colposcopy and biopsy for ASCUS and LSIL. This is because the mild abnormalities may, in a small proportion of cases, indicate the presence of a more serious abnormality (HSIL) or risk of progression to HSIL. However, most abnormalities will return to normal without treatment. Because of this, some physicians perform only repeat Pap tests in the case of ASCUS.

Most abnormalities on Pap tests are the result of HPV infection. There are more than 70 known types of HPV. Less than half infect the cervix, and not all of the types found in the cervix are the high-risk types that have been linked to HSIL and cancer. If a pap test has a diagnosis of ASCUS, HPV testing may be done to determine if a colposcopy is needed.

What are false positive and false negative results?
Unfortunately, there are occasions when Pap test results are not accurate. Although these errors do not occur very often, they can cause anxiety and can affect a woman's health.

A false positive Pap test occurs when a patient is told she has abnormal cells when the cells are actually normal. A false negative Pap test result occurs when a specimen is called normal, but the woman has an abnormality. A variety of factors may contribute to a false negative result. A false negative Pap test may delay the diagnosis and treatment of a precancerous condition. However, regular screening helps to compensate for the false negatives because if abnormal cells are missed at one time, chances are good that the cells will be detected next time.

What should I do if the results of the test are abnormal?
If the Pap test shows an unclear or minor abnormality, the physician may repeat the test to ensure accuracy. If the Pap test shows a significant abnormality, the physician may perform a colposcopy using a microscope (called a colposcope) to examine the vagina and the cervix. The procedure is done in the doctor's office.

The doctor may also remove a small amount of cervical tissue for examination by a pathologist. This procedure is called a biopsy and is the only sure way to know whether the abnormal cells on the Pap smear indicate a "real" abnormality.

You should discuss these tests and any other tests or treatment alternatives with your doctor.