

Abnormal Pap Test Results

The Pap test is a way to find cell changes on the cervix. If a Pap test shows these changes, the result will be called abnormal. In some cases, these abnormal cells may lead to cancer. You may need treatment. In most cases, the treatment will be performed in your doctor's office with good results. This pamphlet explains:

- What Pap test results mean
- What cervical problems may be present
- How they are diagnosed and treated

Keep in mind that most problems that cause abnormal Pap test results, when found early, can be treated.



The Cervix

The cervix is the lower, narrow end of a woman's uterus. It opens into the vagina (the birth canal). The cervix is covered by a thin layer of tissue. This tissue is like the skin inside your mouth.

Like all cells, the cells that make up the tissue grow all the time. During this growth, the cells at the bottom layer slowly move to the surface of the cervix. They are shed when they reach the surface. Some cells can become abnormal during this process.

The Pap Test

The *Pap test*, sometimes called a Pap smear or cervical cytology screening, is an important part of women's health care. This test looks at cells taken from the cervix. It tells your doctor if there are any abnormal cells on the cervix. Some abnormal cells may be precancer or, rarely, cancer. Precancer is when there are changes in the cells that may, but do not always, become cancer if left untreated. A Pap test of the cervix does not detect cancer in other parts of the body.

Most labs in the United States use the "Bethesda System" to describe Pap test results. This standard system helps doctors plan treatment if needed. With this system, your results will be placed in one of several groups:

- *Normal (negative)*: There are no signs of cancer or precancer.
- *Atypical squamous cells (ASC)*: Some abnormal cells are seen. These cells may be caused by an infection or irritation or may be precancerous.
- *SIL (squamous intraepithelial lesion)*: Changes are seen in the cells that may show signs of precancer. SIL can be low grade (LSIL) or high grade (HSIL). HSIL changes on a Pap test suggest a higher risk of precancer being present than with LSIL changes.
 - LSIL*: Early, mild changes are seen in the cells.
 - HSIL*: Moderate or severe cell changes are seen.
- *Atypical glandular cells*: Cell changes show that further testing is needed because of an increased risk of precancer or cancer of the cervix, uterus, or other female reproductive organs.
- *Cancer*: Abnormal cells have spread deeper into the cervix or to other tissues.

Pap Test Terms

Cervical changes may be called CIN or SIL. Both of these terms also are referred to as dysplasia.

| Term | CIN | SIL |
|----------------------|-----|------------|
| Human papillomavirus | 1 | Low-grade |
| Mild dysplasia | 1 | Low-grade |
| Moderate dysplasia | 2 | High-grade |
| Severe dysplasia | 3 | High-grade |
| Carcinoma in situ | 3 | High-grade |

Abnormal Results

A Pap test result that is not normal usually is caused by an infection such as **human papillomavirus (HPV)** or types of vaginal irritation. It also may be caused by a change in cells called squamous intraepithelial lesion (SIL). SIL also may be referred to as cervical intraepithelial neoplasia (CIN) or dysplasia. There are many different terms to describe abnormal Pap test results (see box above).

Squamous Intraepithelial Lesion

SIL is found in women of all ages. It can range from mild, moderate, and severe to carcinoma in situ (CIS). CIS is not yet cancer. However, if not treated, it is the type of SIL most likely to progress to cancer. The box lists risk factors for SIL.

Human Papillomavirus Infection

Human papillomavirus infection can cause abnormal Pap test results. However, most women infected with HPV have normal Pap test results. It is a very common infection that can be passed from person to person. There is no treat this type of infection. Many people have it and, in many cases, it does not cause problems. Some types of HPV can be spread through sexual contact.

Certain types of HPV are linked to cancer in both women and men. Some are known to be a major cause of cancer of the cervix. Certain types

of HPV also may be linked to cancer of the anus, vulva, vagina, and penis. If you have concerns about HPV infection, talk to your doctor.

In some cases an HPV test can be done to help clarify the Pap test results. A negative HPV test result means that the ASC cell changes that were seen are not related to precancer. Most women with HPV do not develop precancer of the cervix. Women who have an abnormal Pap test result and a positive test result for certain types of HPV will need further testing.

Further Testing

A woman who receives an abnormal Pap test result may need further testing. Sometimes you may only need a repeat Pap test because many cell changes go away on their own.

The key to treating cervical changes is finding them early. The earlier a problem is found, the more likely it is that treatment, if needed, will work.

Regular pelvic exams and Pap tests can help find problems early. Further testing methods, such as **colposcopy** and **biopsy**, can help identify the reason for the abnormal test result.

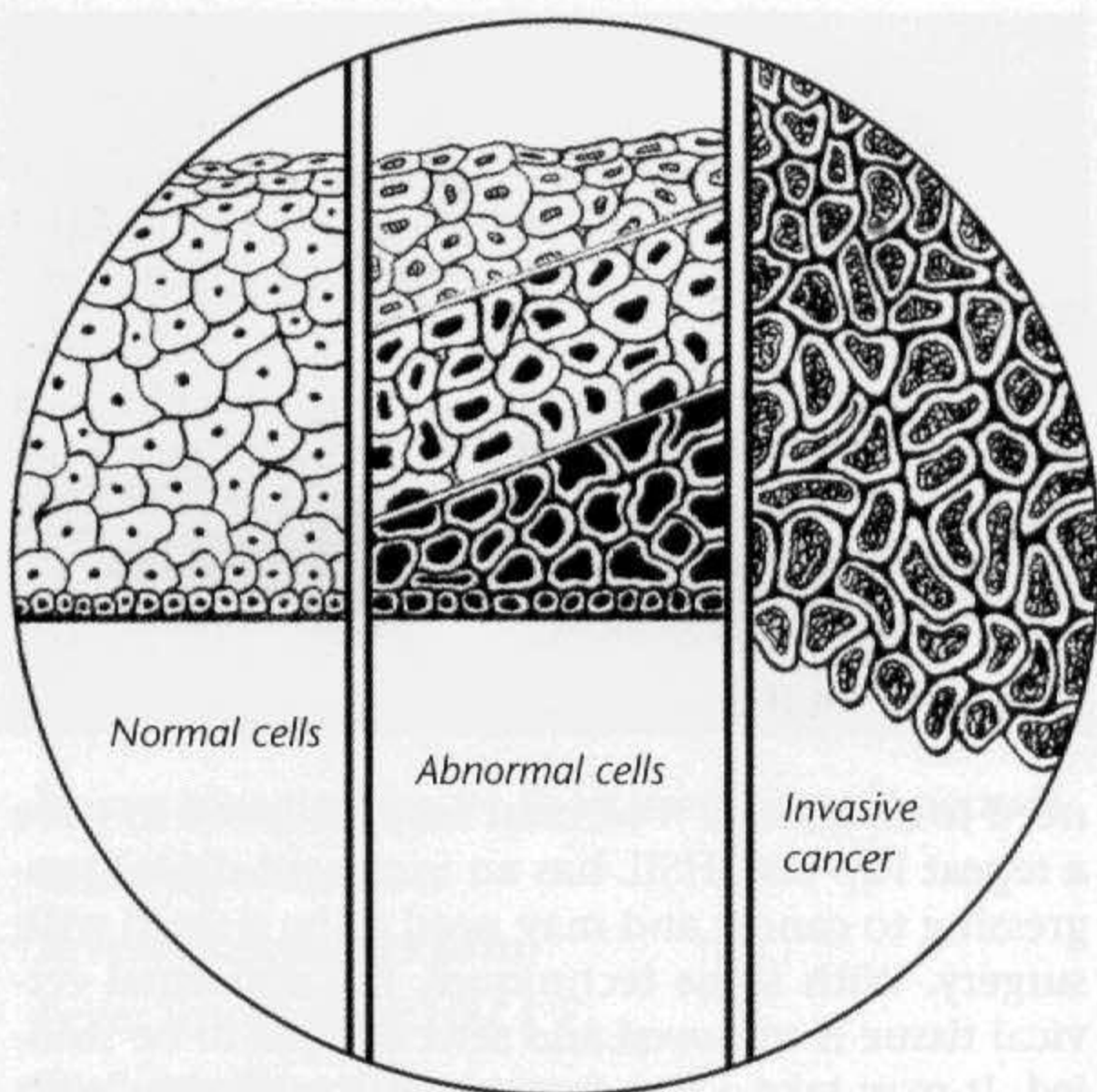
Colposcopy

Colposcopy lets your doctor look at the cervix through a special device similar to a microscope. It

Risk Factors for SIL

You are at increased risk for SIL if you:

- Have human immunodeficiency virus (HIV)
- Have a weakened immune system (for instance, because you have had a kidney transplant)
- Have a history of dysplasia or certain cancers
- Have a mother who took DES (diethylstilbestrol, a medication given to many pregnant women in the 1950s and 1960s) when she was pregnant with you.



This enlarged view of cervical cells shows abnormal cells (middle) growing toward the surface of the cervix.

can detect problems of the cervix that cannot be seen with the eye alone.

Colposcopy is used to help diagnose SIL and cervical cancer. You may be referred to another doctor or a special clinic for this test.

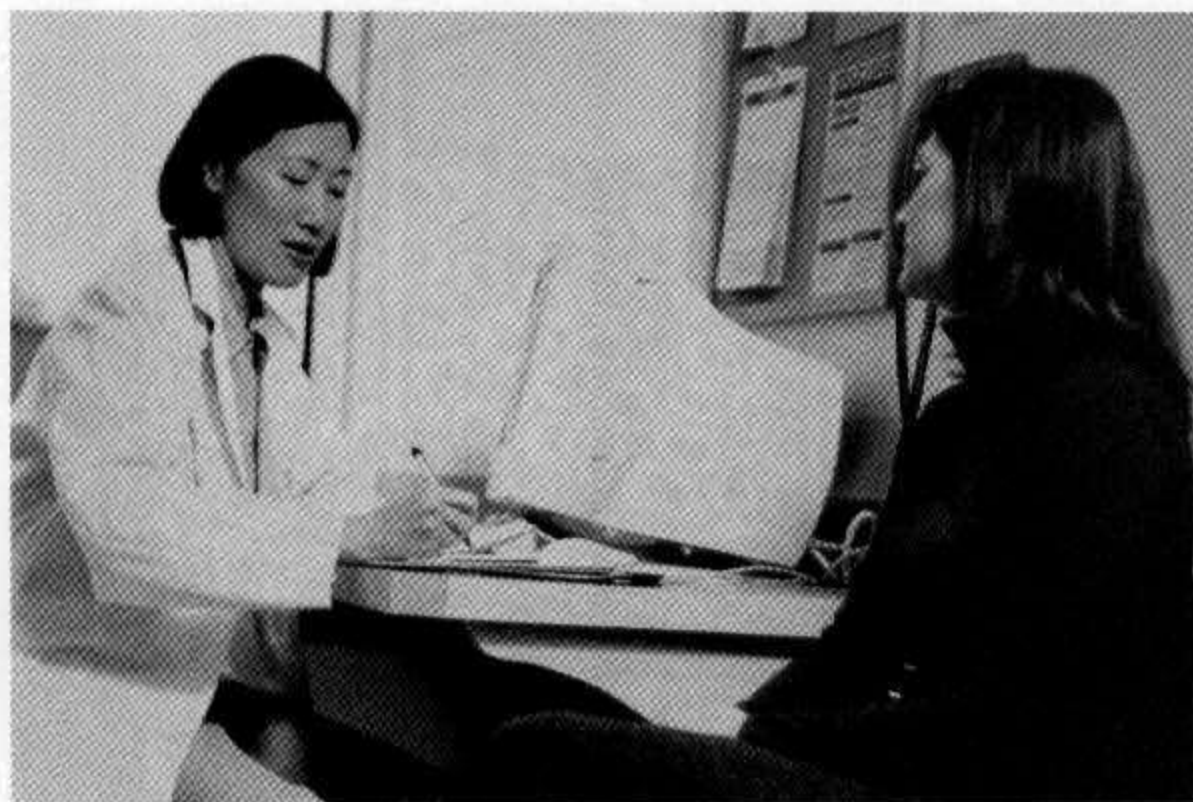
For colposcopy, a speculum like the one used during a Pap test is placed in the vagina. The colposcope remains outside of the vagina, but is used to see the cervix. The cervix is painted with a mild vinegar solution that sometimes causes a slight burning. This liquid makes abnormal cells on the cervix easier to see.

Biopsy

If an area of abnormal cells is seen, your doctor may decide that a cervical biopsy is needed. For a biopsy, the doctor removes a small sample of tissue and sends it to a lab to be studied. You may have a pinching or cramping feeling when it is done. Colposcopy and biopsy will help your doctor decide if treatment is needed.

Treatment

Treatment of cervical changes depends on the severity of the problem. For instance, LSIL may not



need to be treated. A woman may just need to have a repeat Pap test. HSIL has an increased risk of progressing to cancer and may need to be treated with surgery. With some techniques, the abnormal cervical tissue is removed and sent to a lab to be studied. It may take a few days to get the results. With other techniques, such as freezing or laser, there is no sample to be tested.

In rare cases, a *hysterectomy* is used to treat HSIL. Women who may wish to have children should discuss their treatment options with their doctor.

Electrosurgical Excision

Electrosurgical excision often is used for women with HSIL. This method is sometimes called a loop electrosurgical excision procedure (LEEP). LEEP often is done in the doctor's office.

Because there is minor discomfort, a local anesthetic is given. For this procedure, a thin wire loop that carries an electric current is used to remove abnormal areas of the cervix. This electric energy also is used to close off the blood vessels on the surface of the cervix. This lowers the risk of bleeding after the procedure.

Cone Biopsy

Another technique used to obtain a tissue sample is a cone biopsy. In this procedure, a cone-shaped wedge of the cervix is removed. General or spinal anesthesia may be used for a cone biopsy. The procedure usually is done in a hospital or outpatient surgery clinic. You should be able to go home the same day.

Freezing and Laser Treatment

With cryotherapy, abnormal tissue is frozen and later sheds. Sometimes, laser treatment in which a beam of light destroys abnormal tissue is used.

Risks

Although problems seldom occur after treatment for cervical changes, there are some risks. You may be at increased risk for preterm birth or infertility. There is also a risk of infection after the procedure. You should contact your doctor if you have any of the following:

- Heavy bleeding (more than your normal period)
- Bleeding with clots
- Severe abdominal pain
- Fever (more than 100.4°F)
- Foul-smelling discharge
- No period within 4 weeks (if your menstrual cycle was regular before treatment)

Follow-up

It may take a few weeks for your cervix to heal. While your cervix heals, you may have:

- Vaginal bleeding (less than a normal menstrual flow)
- Mild cramping
- A brownish-black discharge
- A watery discharge (with cryotherapy)



For a few weeks after the procedure, you should not have sex or use tampons or douches. If you have any discomfort, your doctor may prescribe pain relief medications.

After treatment for cervical changes, your doctor will suggest frequent checkups and Pap tests. You should continue to see your doctor regularly.

Finally . . .

If you are concerned about abnormal Pap test results, talk to your doctor. Keep in mind that most problems that cause abnormal Pap test results, when found early, can be treated. Routine exams and Pap tests are the best ways to find cervical problems.

Glossary

Biopsy: Removal of a small piece of tissue that is then examined under a microscope in a laboratory.

Colposcopy: Viewing of the cervix, vulva, or vagina with magnification using an instrument called a colposcope.

Electrosurgical Excision: The removal of abnormal tissue (of the cervix, vagina, or vulva) using a thin wire loop and electric energy.

Human Papillomavirus (HPV): The common name for a group of related viruses, some of which are linked to cervical changes and cervical cancer.

Hysterectomy: Removal of the uterus.

Pap Test: A test in which cells are taken from the cervix and vagina and examined under a microscope.

Squamous Intraepithelial Lesion (SIL): A precancerous condition that occurs when normal cells on the surface of the cervix are replaced by a layer of abnormal cells. SIL is classified as low grade or high grade. Other terms are CIN and dysplasia.