Glossary

Biopsy: A minor surgical procedure to remove a small piece of tissue that is then examined under a microscope in a laboratory.

Cervical Intraepithelial Neoplasia (CIN): Another term for dysplasia; a noncancerous condition that occurs when normal cells on the surface of the cervix are replaced by a layer of abnormal cells. CIN is classified as 1, 2, or 3.

Colposcopy: Viewing of the cervix under magnification with a colposcope.

Conization: A procedure in which a cone-shaped wedge of tissue is removed from the cervix.

Dysplasia: A noncancerous condition that occurs when normal cells on the surface of the cervix are replaced by a layer of abnormal cells. Dysplasia is classified as mild, moderate, severe, or carcinoma in situ (CIS).

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

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

Squamous Intraepithelial Lesion (SIL): Term used in Pap test reports that includes dysplasia, cervical intraepithelial neoplasia (CIN), and changes caused by human papillomavirus. A noncancerous 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.

Stage: Stage refers to the size of a tumor and the extent (if any) to which the disease has spread.

This Patient Education Pamphlet was developed under the direction of the Committee on Patient Education of the American College of Obstetricians and Gynecologists. Designed as an aid to patients, it sets forth current information and opinions on subjects related to women's health. The information in this pamphlet does not dictate an exclusive course of treatment or procedure to be followed and should not be construed as excluding other acceptable methods of practice. Variations taking into account the needs of the individual patient, resources, and limitations unique to the institution or type of practice may be appropriate.

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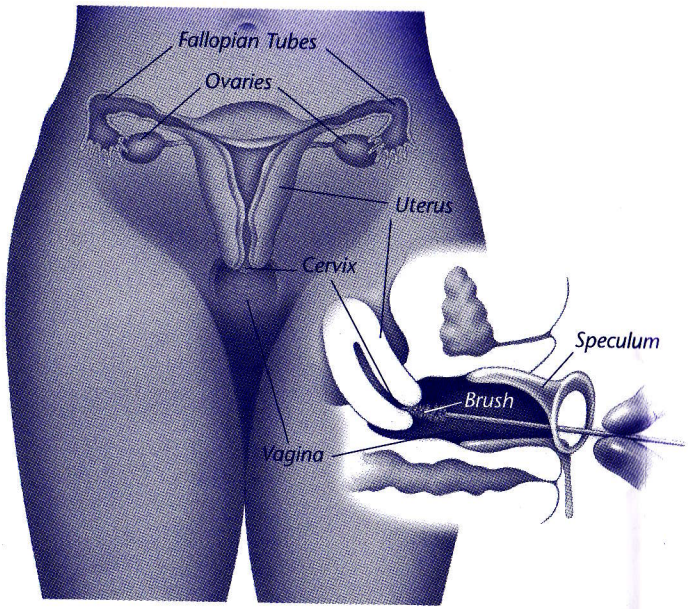
GYNECOLOGIC PROBLEMS

Disorders of the Cervix

ACOG PATIENT EDUCATION



For the Pap test, a speculum is inserted into the vagina. A small sample of cells is collected with a small brush or swab and scraper. The brush or swab is inserted into the cervical canal to reach the higher cells.

Sometimes the Pap test may need to be done again. This does not always mean something is wrong—there may be an infection or too few cells were collected.

If the Pap test shows abnormal cells, your doctor will explain the results to you. You may be advised to have further tests to diagnose the problem.

Colposcopy

Colposcopy is the next test performed if a Pap test is abnormal. It is a way of looking at the cervix through a special magnifying instrument called a colposcope. It lets your doctor detect problems of the cervix that cannot be seen with the eye alone. Colposcopy often is used to diagnose cervical cancer, dysplasia, genital warts on the cervix, cervicitis, and benign growths such as polyps.

For colposcopy, a speculum like the one used during a Pap test is placed in the vagina. The colposcope then is moved so that the cervix can be seen. The cervix will be cleansed with a mild vinegar solution that sometimes causes a slight burning. This liquid makes abnormal cells on the cervix easier to see. You may be referred to another doctor or to a special clinic for this test.

Biopsy

When abnormalities of the cervix are seen by colposcopy, a biopsy may be done to diagnose the problem. In this procedure, small pieces of cervical tissue are removed for study. A biopsy most often can be done in the doctor's office or clinic. You may have some mild cramping or feel a pinch. The results of a biopsy may not be ready for several days.

A biopsy can be performed by ***electrosurgical excision***. For this procedure, a local anesthetic is given. Then a thin wire loop that carries an electric current is used to remove the abnormal areas from the cervix. Electric energy also is used to close off the blood vessels on the surface of the cervix. This reduces the risk of bleeding after the procedure. The abnormal areas are removed for study. This allows diagnosis and treatment at the same time. Most of the time, this procedure is done in the doctor's office. It takes about 10–20 minutes and causes minor discomfort.

If a larger sample is needed, ***conization*** may be done. Through surgery, a cone-shaped wedge of the cervix is removed. The sample is then examined under a microscope. It may take a few days to get these results. The conization procedure also may serve as a method of treatment for some cervical disorders because the affected area is removed in many cases. Conization requires general or regional anesthesia in most cases. You may need to be admitted to the hospital for the procedure.

Methods of Treatment

Treatment of cervical disorders depends on the type of problem. For instance, mild cervicitis may be treated with medicines such as antibiotics.

Minor surgery may be used to treat genital warts, dysplasia, and early stages of cancer. With surgery, the affected tissue is removed. A new layer of normal cells then grows over the affected area.

Types of surgery that may be performed include:

- Cryotherapy: A probe coated with freezing agents is applied to the cervix.
- Electrosurgery: Heat destroys the affected cervical tissue.
- Electrosurgical excision: Abnormal growths are removed using a thin wire loop and electrical energy.
- Laser treatment: A high-intensity beam of light is used to remove abnormal tissue or growths.
- Conization: A cone-shaped wedge of tissue is removed from the cervix.

Most cases of dysplasia, including CIS, may be treated with one of these methods. Sometimes a hysterectomy (removal of the uterus) may be done to treat CIS if the patient no longer wants to have children or if there are other gynecologic problems. Women who wish to remain able to have children should discuss their options with their doctor.

Early-stage cancer of the cervix in young, healthy women most often is treated with a hysterectomy. The upper part of the vagina, nearby tissue, and the lymph nodes also may be removed. The ovaries will not be removed if they are healthy.

Late-stage cervical cancer and cervical cancer in older or less healthy women are most often treated with radiation. If cancer has spread to other parts of the body, chemotherapy may be given.

Finally...

Don't take chances if you think that you may have a problem. The best results occur when cervical disorders are found and treated early. Have a complete pelvic exam, which includes a Pap test, once a year. If you have a higher risk of cervical cancer or you have had cancer, you may need to be tested more often. If you have abnormal vaginal spotting, bleeding, or discharge, or if you notice any other sign that something could be wrong, see your doctor right away.

Disorders of the cervix are common. They range from fairly mild problems, such as infection and inflammation, to more serious ones, such as cancer. Many types of cervical disorders can develop into cancer or can make it more likely for a woman to develop cancer. The ***Pap test*** *is the best way to find changes early—before they become serious.*

This pamphlet will tell you more about:

- *Types of cervical disorders*
- *How they are diagnosed*
- *How they are treated*

The best results occur when cervical disorders are found and treated early. Have a complete pelvic exam, which includes a Pap test, once a year.

The Cervix

The cervix is the lower, narrow end of the uterus. It opens into the vagina. The cervix is covered by a thin layer of tissue (like the skin inside your mouth). As with all cells, the cells that make up this tissue grow all the time. During this growth, the cells at the bottom layer slowly move to the surface of the cervix. When these cells reach the surface, they are shed. During this process, some cells can become abnormal.

Types of Cervical Disorders

Cervicitis

Cervicitis is an inflammation of the cervix that may or may not cause symptoms. It is common in women during their childbearing years. Causes of cervicitis include:

- Infections, especially with an organism that can be passed through sex
  - —Bacteria such as those that cause gonorrheal or chlamydial infections
  - —Viruses such as the ones that cause herpes or genital warts
  - —Trichomonas, an organism that can cause vaginal infection
- Irritation from a foreign body
  - —Intrauterine device (IUD)
  - —Forgotten tampon
  - —Pessary (a device placed in the vagina to hold sagging pelvic organs in place)

In some cases, the cause of cervicitis cannot be found.

When symptoms of cervicitis do occur, they include a vaginal discharge that may have a bad odor. A tender feeling or pain in the pelvic region may occur. Slight bleeding between periods or after sex also may occur.

Polyps

Polyps are benign (not cancer) growths or tumors that often appear on the cervix. Polyps vary in size and may cause vaginal bleeding. They often can be found during a pelvic exam or with ***colposcopy***. In most cases, polyps can be removed in the office. Anesthesia is not needed in most cases.

Genital Warts

Genital warts, also called condyloma, are spreading growths that are caused by some types of human papillomavirus (HPV). The virus is most often passed during sex. Some types of HPV are linked to cancer. Women who have had genital warts should have regular checkups that include Pap tests.

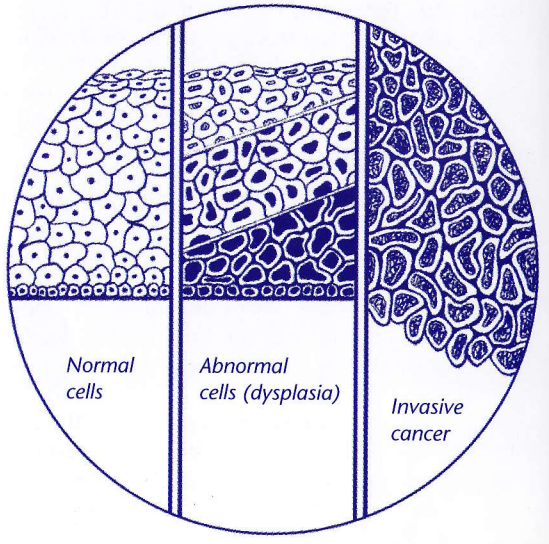
Dysplasia

Dysplasia is a type of cervical disorder that occurs when there is a change in the cells on the surface of the cervix. Normal, benign cells are replaced by abnormal cells. It is not cancer. The abnormal cells can turn into cancer cells if they are not treated, though.

Dysplasia often can be diagnosed and treated with success. Dysplasia is found in women of all ages, but it is more common in young women and teens. The box lists risk factors for dysplasia.

The range of dysplasia includes mild, moderate, and severe dysplasia and carcinoma in situ (CIS). CIS is not a true form of cancer. It is the most likely to develop into cancer if not treated, though.

Other terms may be used to report cervical changes on a Pap test. These include ***cervical intraepithelial neoplasia (CIN)*** and ***squamous intraepithelial lesion (SIL)***. The terms dysplasia



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

Risk Factors for Dysplasia and Cervical Cancer

You may be at risk for dysplasia or cervical cancer if you:

- Have or have had genital warts
- Have more than one sexual partner (or male partners who have more than one partner)
- First had sex at a young age
- Smoke

and CIN can be used when your doctor refers to the result of a Pap test or a ***biopsy***. SIL is a term that is used to refer to Pap test results only.

There are three grades of CIN:

- CIN 1 includes mild dysplasia
- CIN 2 includes moderate dysplasia
- CIN 3 includes severe dysplasia and CIS

SIL may be low grade or high grade. Low-grade SIL includes mild dysplasia (CIN 1) and changes linked to HPV. High-grade SIL includes moderate and severe dysplasia (CIN 2 and 3) and CIS.

These terms may confuse you. The box helps explain how they relate to each other.

Invasive Cervical Cancer

A disorder of the cervix becomes serious—invasive cancer—when it moves into deeper tissue layers or spreads to other organs. Cancer results when cells grow out of control and can no longer perform their normal functions. Only malignant (cancer) cells spread. They travel through the body in blood and lymphatic fluid (a yellow liquid derived from tissue fluids found throughout the body). They also spread through the tissue next to the cervix. If cancerous cells are found before they have spread, treatment is more likely to succeed.

Because cervical cancer most often develops after abnormal cells have been present for a number of years, it tends to affect women aged 35–50. Cervical cancer can occur at any age, though.

Risk factors for cervical cancer are much like those for dysplasia (see box). Women at special risk should be alert for symptoms of cancer and get regular checkups.

Often there are no symptoms of cervical cancer. When symptoms do occur, the first sign may be abnormal bleeding, spotting, or discharge from the vagina. With advanced cancer, there may be pain, problems urinating, and swelling in the legs. These symptoms do not always mean that you have cancer. If you have any symptoms, see your doctor without delay.

If tests show that a woman has cancer, her doctor will determine the size of the tumor and the extent (if any) to which it has spread. This is referred to as its ***stage***. Stages range from I to IV. Stage I is the earliest stage and is treated most easily. Stage IV is the most advanced stage and means that cancer has spread to other parts of the body.

Earlier stages of cancer have a greater chance of successful treatment. The cure rate for stage I cancer is 85–90%. The chance of a cure decreases to as low as 5–10% for stage IV cancer.

Your doctor may consult with, or refer you to, a gynecologic oncologist (a specialist in treating cancer in women) or a radiation oncologist (a specialist in using radiation to treat cancer). They will work as a team to choose treatment that meets your needs. Your doctors will keep in mind not only the extent of the disease, but also your age, your general health, and other personal factors. There is no one approach that is right for all women. Together you can decide on a course of treatment.

Any woman who has had cervical cancer is at risk for having the cancer return. A new cancer also may begin growing somewhere else in the body. For this reason, regular checkups are vital, even after treatment. Your doctor will work with you to arrange the needed follow-up visits.

Pap Test Terms

Dysplasia	CIN	SIL
Mild	1	Low grade
Moderate	2	High grade
Severe	3	
CIS		

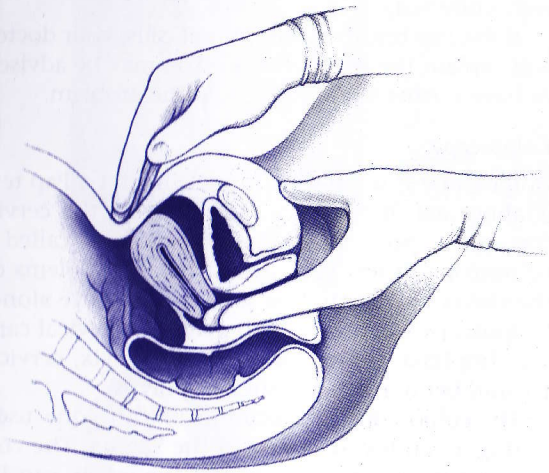
Diagnosis of Cervical Disorders

The key to successful treatment of disorders of the cervix is finding them early. Some disorders, such as dysplasia, may precede cancer by some years. The earlier the stage when they are found, the more likely it is that treatment will succeed. Finding problems early depends on getting regular exams. This includes a pelvic exam and Pap test. Some of the methods used to diagnose cervical disorders also may be used to treat them at the same time.

The Pap Test

For most women, a Pap test done each year, starting at age 18 or sooner if they have sex, is the best screening method for finding changes in the cervix. The Pap test is a screening test. It is used to detect problems when there is no sign of disease. The Pap test can detect changes in the cells of the cervix at an early stage. Some types of genital warts, dysplasia, cervicitis, and cancer of the cervix can be detected by the Pap test.

A Pap test can be done in your doctor's office during a regular pelvic exam. For the test, a speculum is placed in the vagina, and a sample of cells is taken from the cervix. These cells then are spread onto a glass slide and given to a lab for analysis.



The doctor checks the pelvic organs for any changes during a pelvic exam.