

Colposcopy

- What is colposcopy?
- Why is colposcopy done?
- How is the procedure performed?
- When is a biopsy done during colposcopy?
- What should I expect during recovery?
- Glossary

What is colposcopy?

Colposcopy is a way of looking at the **cervix** through a special magnifying device called a colposcope. It shines a light into the **vagina** and onto the cervix. A colposcope can greatly enlarge the normal view. This exam allows the health care provider to find problems that cannot be seen by the eye alone.

Why is colposcopy done?

Colposcopy is done when results of cervical cancer screening tests show abnormal changes in the cells of the cervix. Colposcopy provides more information about the abnormal cells. Colposcopy also may be used to further assess other problems:

- Genital warts on the cervix
- Cervicitis (an inflamed cervix)
- Benign (not cancer) growths, such as **polyps**
- Pain
- Bleeding

Sometimes colposcopy may need to be done more than once. It also can be used to check the result of a treatment.

How is the procedure performed?

Colposcopy is done in a doctor's office. You may be referred to another health care provider or to a special clinic to have it done.

The procedure is best done when a woman is not having her menstrual period. This gives the health care provider a better view of the cervix. For at least 24 hours before the test, you should not

- douche
- use tampons
- use vaginal medications
- have sex

As with a pelvic exam, you will lie on your back with your feet raised and placed on foot rests for support. A **speculum** will be used to hold apart the vaginal walls so that the inside of the vagina and the cervix can be seen. The colposcope is placed just outside the opening of your vagina.

A mild solution will be applied to your cervix and vagina with a cotton swab or cotton ball. This liquid makes abnormal areas on the cervix easier to see. You may feel a slight burning.

When is a biopsy done during colposcopy?

During colposcopy, the health care provider may see abnormal areas. A **biopsy** of these areas may be done. During a biopsy, a small piece of tissue is removed from the cervix. The sample is removed with a special device.

Cells also may be taken from the canal of the cervix. A special device is used to collect the cells. This is called endocervical curettage (ECC).

What should I expect during recovery?

If you have a colposcopy without a biopsy, you should feel fine right away. You can do the things you normally do. You may have a little spotting for a couple of days.

If you have a colposcopy with a biopsy, you may have pain and discomfort for 1 or 2 days. Over-the-counter pain medications can be helpful. You may have some vaginal bleeding. You also may have a dark discharge for a few days. This may occur from medication used to help stop bleeding at the biopsy site. You may need to wear a sanitary pad until the discharge stops.

Your health care provider may suggest you limit your activity for a brief time. While the cervix heals, you will be told not to put anything into your vagina for a short time:

- Do not have sex.
- Do not use tampons.
- Do not douche.

Call your health care provider right away if you have any of these problems:

- Heavy vaginal bleeding (using more than one sanitary pad per hour)
- Severe lower abdominal pain
- Fever
- Chills

Glossary

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

Cervix: The lower, narrow end of the uterus at the top of the vagina.

Polyps: Benign (noncancerous) growths that develop from tissue lining an organ, such as that lining the inside of the uterus.

Speculum: An instrument used to hold open the walls of the vagina.

Vagina: A tube-like structure surrounded by muscles leading from the uterus to the outside of the body.

If you have further questions, contact your obstetrician–gynecologist.

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COLPOSCOPY

Colposcopy is a procedure in which the cervix (the lowest part of the uterus) is examined using a magnifying device called a colposcope. This allows a gynecologist to find problem areas on the cervix which cannot be seen without magnification. Colposcopy is often performed when a Pap smear has abnormal results and allows the gynecologist to take biopsies of abnormal areas. Colposcopy is also used to take a closer look at warts on the cervix, inflammation of the cervix, polyps on the cervix, or to investigate pain or bleeding of the cervix.

Procedure:

- This test is best done when you are not on your menstrual period
- Do not place anything in the vagina for at least 24 hours prior to the test. This means no douching, no tampon use, no use of vaginal creams/ointments, and no sex.
- Colposcopy is usually done in your doctor's office and takes under 15 minutes.
- Similar to the procedure used for obtaining a Pap smear, you will lie on your back with your feet in stirrups. A tool called a speculum will be placed into your vagina to hold it open so that the cervix can be seen. A liquid will be applied to your cervix which will help make abnormal areas easier to see. You may feel a mild burning sensation.
- After careful inspection of the cervix, your doctor may take very precise biopsies (tissue samples to study) of suspicious areas.
- Cell scrapings may also be taken from the inside of the cervix. This is called endocervical curettage (ECC).
- Biopsy results are usually available within a week, although they sometimes take longer to become available.

Risks:

- There is a very slight risk of infection or bleeding after a biopsy, although bleeding is generally minimal and easily controlled.
- There may be discomfort and pain for a day or two. Some of this pain may be similar to menstrual cramping.
- You may have dark-colored vaginal discharge for a few days.
- Most patients will need to avoid putting anything in the vagina for a few days after the procedure. Your doctor will let you know when it is OK to place something in your vagina again.

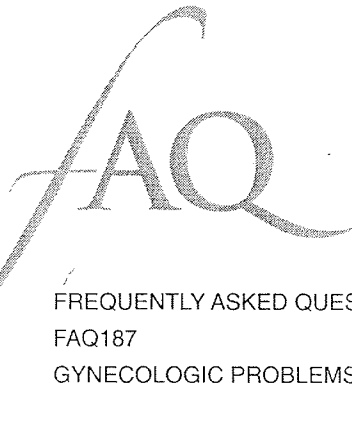
Call your doctor if:

- You have vaginal bleeding that requires you to change a pad more often than once per hour
- You have severe lower abdominal pain
- You have fever or chills

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FREQUENTLY ASKED QUESTIONS
FAQ187
GYNECOLOGIC PROBLEMS

Abnormal Cervical Cancer Screening Test Results

- What is cervical cancer screening?
- What causes abnormal cervical cancer screening test results?
- What is the difference between the terms cervical intraepithelial lesion and squamous intraepithelial lesion?
- What are the different types of abnormal Pap test results?
- What testing is needed after an abnormal cervical cancer screening test result?
- How are abnormal cervical cells treated?
- What types of excisional treatments are there?
- What types of ablative treatments are there?
- Glossary

What is cervical cancer screening?

Cervical cancer screening is used to find abnormal changes in the **cells** of the **cervix** that could lead to cancer. Screening includes the **Pap test** and, for some women, testing for a virus called **human papillomavirus (HPV)** (see FAQ085 "Cervical Cancer Screening").

What causes abnormal cervical cancer screening test results?

The main cause of cervical cancer is infection with HPV. There are many types of HPV. Some types have been linked to cancer of the cervix, vulva, vagina, anus, and penis. Some also can cause cancer of the head and neck. These types of HPV are known as "high-risk" types. Most cases of cervical cancer are caused by just two high-risk types of HPV—type 16 and type 18. Cells that are infected with HPV appear different from normal cells under a microscope. Abnormal changes can be mild, or they can be more serious. The more serious changes can lead to cancer if not treated (see FAQ191 "Human Papillomavirus [HPV] Vaccination").

What is the difference between the terms cervical intraepithelial lesion and squamous intraepithelial lesion?

These terms are used to describe changes in the cervix, but they are used in different situations. **Squamous intraepithelial lesion (SIL)** is used to describe Pap test results. "Squamous" refers to the type of cells that make up the tissue that covers the cervix. SIL is not a diagnosis of precancer or cancer. The Pap test is a screening test. It cannot tell exactly how severe the changes are in cervical cells. A **cervical biopsy** is needed to find out whether precancer or cancer actually is present.

Cervical intraepithelial lesion (CIN) is used to report cervical biopsy results. CIN describes the actual changes in cervical cells. CIN is graded as 1, 2, or 3. CIN 1 is used for mild (low-grade) changes in the cells that usually go away on their own without treatment. CIN 2 is used for moderate changes. CIN 3 is used for more severe (high-grade) changes. Moderate and high-grade changes can progress to cancer. For this reason, they may be described as "precancer."

What are the different types of abnormal Pap test results?

- Atypical squamous cells of undetermined significance (ASC-US)—ASC-US means that changes in the cervical cells have been found. The changes are almost always a sign of an HPV infection. ASC-US is the most common abnormal Pap test result.
- Low-grade squamous intraepithelial lesion (LSIL)—LSIL means that the cervical cells show changes that are mildly abnormal. LSIL usually is caused by an HPV infection that often goes away on its own.
- High-grade squamous intraepithelial lesion (HSIL)—HSIL suggests more serious changes in the cervix than LSIL. It is more likely than LSIL to be associated with precancer and cancer.

- Atypical squamous cells, cannot exclude HSIL (ASC-H)—ASC-H means that changes in the cervical cells have been found that raise concern for the presence of HSIL.
- Atypical glandular cells (AGC)—Glandular cells are another type of cell that make up the thin layer of tissue that covers the inner canal of the cervix. Glandular cells also are present inside the uterus. An AGC result means that changes have been found in glandular cells that raise concern for the presence of precancer or cancer.

What testing is needed after an abnormal cervical cancer screening test result?

If you have an abnormal cervical cancer screening test result, you may need further testing. The following tests may be done depending on your age and your initial Pap test result (see Table 1):

- Repeat Pap test or co-test—A repeat Pap test or a repeat co-test (Pap test and a test for high-risk types of HPV) is recommended as a follow-up to some abnormal test results. These repeat tests may be done in 1 year or in 3 years depending on your initial test result, your age, and the results of previous tests.

Table 1. Cervical Cancer Screening Test Results Follow-up

This table shows the recommended follow-up for women who have had no prior abnormal cervical cancer screening test results. Follow-up is different when an abnormal cervical cancer screening test result occurs in a woman who has had a prior abnormal result.

	<i>Ages 21–24</i>	<i>Ages 25–29</i>	<i>Ages 30 and Older</i>	
			<i>HPV Negative</i>	<i>HPV Positive</i>
Normal Pap test results	Routine screening: Pap test every 3 years	Routine screening: Pap test every 3 years	Routine screening: Preferred— Co-testing* every 5 years Acceptable— Pap test alone every 3 years	Acceptable— Co-testing* in 12 months Acceptable— HPV typing†
ASC-US	Preferred— Repeat Pap test in 12 months Acceptable— Reflex HPV test‡	Preferred— Reflex HPV test‡ Acceptable— Repeat Pap test in 12 months	Repeat co-testing* in 3 years	Colposcopy
LSIL	Repeat Pap test in 12 months	Colposcopy	Preferred— Repeat Pap test in 12 months Acceptable— Colposcopy	Colposcopy
ASC-H	Colposcopy	Colposcopy	Colposcopy	Colposcopy
HSIL	Colposcopy	Immediate excisional treatment or colposcopy	Immediate excisional treatment or colposcopy	Immediate excisional treatment or colposcopy
AGC	AGC has several subcategories. The type of follow-up tests that are recommended depend on the AGC subcategory. Tests performed for follow-up include colposcopy, endocervical sampling, and endometrial sampling.			

Abbreviations: ASC-H = atypical squamous cells, cannot rule out HSIL; ASC-US = atypical squamous cells of undetermined significance; AGC = atypical glandular cells; HPV = human papillomavirus; HSIL = high-grade squamous intraepithelial lesion; LSIL = low-grade squamous intraepithelial lesion.

*Co-testing: Combined Pap test and HPV test

†HPV typing: A test for the presence of HPV type 16 and HPV type 18

‡Reflex HPV test: A test for the presence of high-risk HPV types using the sample used for a Pap test

- HPV test—An HPV test looks for the presence of the HPV types that have been linked to cervical cancer. An HPV test can be done on the same cells used for the initial Pap test. This is called reflex HPV testing. There is another kind of HPV test that looks specifically for HPV type 16 and HPV type 18. These two types cause the most cases of cervical cancer. This kind of HPV test is called HPV typing.
- **Colposcopy**, biopsy, and endocervical sampling—Colposcopy is an exam of the cervix with a magnifying device. If an area of abnormal cells is seen, your health care provider may decide that a cervical biopsy is needed. For a biopsy, the health care provider removes a small sample of tissue and sends it to a lab for testing. The lab tests can determine whether CIN is present and, if so, what grade it is. Endocervical sampling also may be done. A small brush or other instrument is used to take a tissue sample from the cervical canal.
- Endometrial sampling—A sample of the endometrium (the lining of the uterus) is collected for study. Some women with an AGC result need to have this follow-up test.

How are abnormal cervical cells treated?

In general, there are two ways to treat abnormal cervical cells: 1) “excisional” treatment and 2) “ablative” treatment. With excisional treatments, tissue is removed from the cervix and is sent to a laboratory to be studied. Results can tell whether CIN actually is present and, if so, how severe it is. With ablative treatment, abnormal cervical tissue is destroyed, and there is no tissue to send to a laboratory for study.

What types of excisional treatments are there?

Excisional treatments include the following:

- **Loop electrosurgical excision procedure (LEEP)**—A thin wire loop that carries an electric current is used to remove abnormal areas of the cervix.
- **Conization**—A cone-shaped piece of the cervix that contains the abnormal cells is removed.

What types of ablative treatments are there?

Ablative treatments include the following:

- **Cryotherapy**—An instrument is used to freeze abnormal cervical tissue, which then sloughs off.
- Laser therapy—A focused beam of light is used to destroy abnormal cervical tissue.

Glossary

Cells: The smallest units of a structure in the body; the building blocks for all parts of the body.

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

Cervical Intraepithelial Neoplasia (CIN): A term used to describe abnormal changes in the cells of the cervix that are caused by infection with human papillomavirus. CIN is graded as 1 (low-grade), 2 (moderate), or 3 (high-grade).

Cervix: The lower, narrow end of the uterus at the top of the vagina.

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

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

Cryotherapy: A freezing technique used to destroy diseased tissue; also known as “cold cauterly.”

Human Papillomavirus (HPV): The name for a group of related viruses, some of which cause genital warts and some of which can cause cancer of the cervix, vulva, vagina, penis, anus, mouth, and throat.

Loop Electrosurgical Excision Procedure (LEEP): The removal of abnormal tissue from the cervix 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): A term used to describe abnormal cervical cells detected by the Pap test.

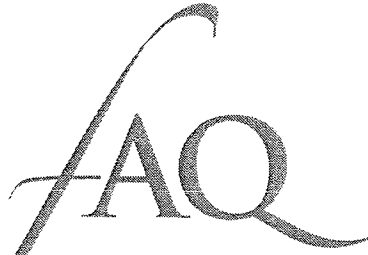
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FREQUENTLY ASKED QUESTIONS
FAQ073
GYNECOLOGIC PROBLEMS

Human Papillomavirus Infection

- What is human papillomavirus (HPV)?
- How common is HPV?
- How is HPV infection spread?
- What diseases does HPV infection cause?
- How does HPV cause cancer of the cervix?
- Are there screening tests for cervical cancer?
- Can HPV infection be prevented?
- Glossary

What is human papillomavirus (HPV)?

Human papillomavirus (HPV) is a virus that can be passed from person to person through skin-to-skin contact. More than 100 types of HPV have been found. About 30 of these types infect the genital areas of men and women and are spread from person to person through sexual contact.

How common is HPV?

HPV is a very common virus. Some research suggests that at least three out of four people who have sex will get a genital HPV infection at some time during their lives.

How is HPV infection spread?

HPV is primarily spread through vaginal, anal, or oral sex, but **sexual intercourse** is not required for infection to occur. HPV is spread by skin-to-skin contact. Sexual contact with an infected partner, regardless of the sex of the partner, is the most common way the virus is spread. Like many other **sexually transmitted diseases**, there often are no signs or symptoms of genital HPV infection.

What diseases does HPV infection cause?

Approximately 12 types of HPV cause genital warts. These growths may appear on the outside or inside of the vagina or on the penis and can spread to nearby skin. Genital warts also can grow around the anus, on the **vulva**, or on the **cervix**.

Approximately 15 types of HPV are linked to cancer of the anus, cervix, vulva, vagina, and penis (see the FAQ Cancer of the Cervix). They also can cause cancer of the head and neck. These types are known as "high-risk types."

How does HPV cause cancer of the cervix?

The cervix is covered by a thin layer of tissue made up of **cells**. If HPV is present, it may enter these cells. Infected cells may become abnormal or damaged and begin to grow differently. The changes in these cells may progress to what is known as precancer. Changes in the thin tissue covering the cervix are called **dysplasia** or **cervical intraepithelial neoplasia (CIN)**. In most women, the **immune system** destroys the virus before it causes cancer. But in some women, HPV is not destroyed by the immune system and does not go away. In these cases, HPV can lead to cancer or, more commonly, precancer.

Are there screening tests for cervical cancer?

It usually takes years for cervical cancer to develop. During this time, HPV infection can cause cells on or around the cervix to become abnormal. A **Pap test**, sometimes called cervical cytology screening, can detect early signs of abnormal cell changes of the cervix and allows early treatment so they do not become cancer (see the FAQ The Pap Test). An HPV test

also is available. It is used along with the Pap test in women 30 years and older and as a follow-up test for women whose Pap tests show abnormal or uncertain results. The HPV test can identify at least 13 of the high-risk types of HPV.

Can HPV infection be prevented?

Young women can prevent certain types of HPV infection by being vaccinated (see the FAQ Human Papillomavirus Vaccine). The following methods also help decrease the chance of infection:

- Limit your number of sexual partners.
- Use condoms to reduce your risk of infection when you have vaginal, anal, or oral sex.

Condoms cannot fully protect you against HPV infection. HPV can be passed from person to person by touching infected areas not covered by a condom. These areas may include skin in the genital or anal areas. Female condoms cover more skin and may provide a little more protection than male condoms.

Glossary

Cells: The smallest units of a structure in the body; the building blocks for all parts of the body.

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 graded as 1 (mild dysplasia), 2 (moderate dysplasia), or 3 (severe dysplasia or carcinoma in situ).

Cervix: The opening of the uterus at the top of the vagina.

Dysplasia: A noncancerous condition that occurs when normal cells are replaced by a layer of abnormal cells.

Immune System: The body's natural defense system against foreign substances and invading organisms, such as bacteria that cause disease.

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

Sexual Intercourse: The act of the penis of the male entering the vagina of the female (also called "having sex" or "making love").

Sexually Transmitted Diseases: Diseases that are spread by sexual contact, including chlamydia, gonorrhea, human papillomavirus infection, herpes, syphilis, and infection with human immunodeficiency virus (HIV, the cause of acquired immunodeficiency syndrome [AIDS]).

Vulva: The external female genital area.

If you have further questions, contact your obstetrician–gynecologist.

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