UNDERSTANDING CERVICAL CHANGES

A HEALTH GUIDE FOR WOMEN

PATIENT & family EDUCATION

U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES
National Institutes of Health
National Cancer Institute

"I didn't understand my results at first—and a part of me didn't want to understand. But I knew this was important . . . and in the end, everything turned out fine."

—MARLENE, AGE 45

A Pap Test Showed Cell Changes in Your Cervix

You're probably reading this booklet because your health care provider told you that your recent **Pap test** (sometimes called a Pap smear) showed **cell** changes in your **cervix.** Although it is quite common to feel uneasy about your Pap test results, it may comfort you to know that each year more than 3 million women receive similar results.

Not All Cell Changes Are Cancer

The good news is that almost always, women with cell changes do not have **cancer** of the cervix (also called cervical cancer). But it is important that you protect your health by getting the follow-up tests and care that your health care provider suggests.

Cell changes do not mean that you will get cancer of the cervix. And because your cell changes were found, simple tests or treatments can help you. When cell changes are found and treated early, almost all women can avoid getting cervical cancer.

Getting Your Questions Answered

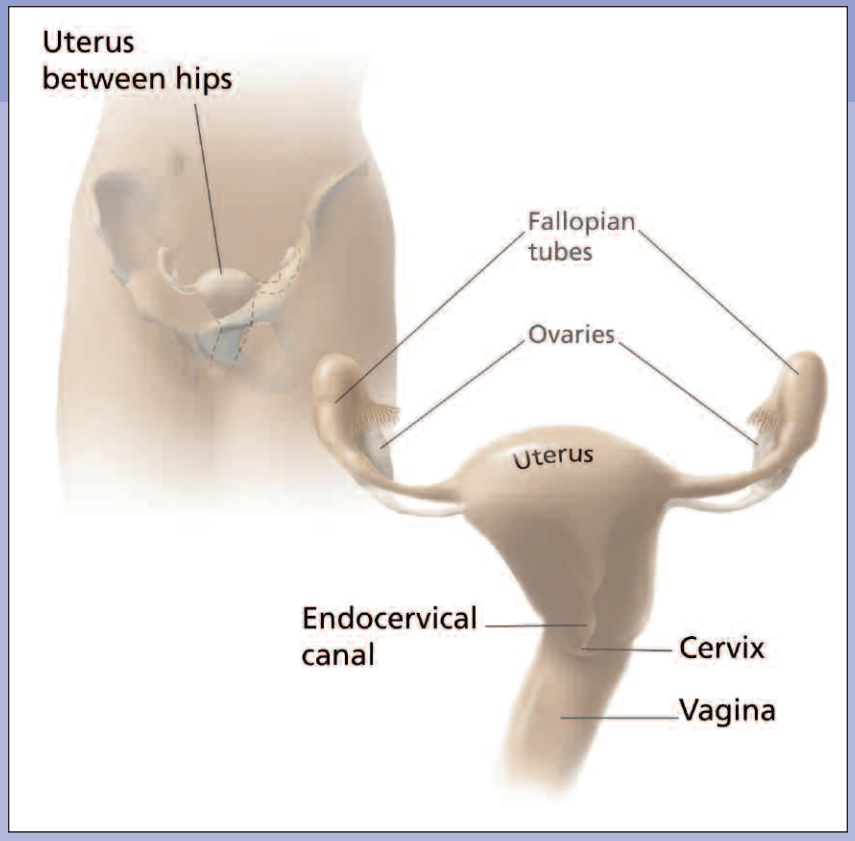
So what is the next step? What do your results mean? Does this mean you need treatment and, if so, what kind? This booklet helps answer these questions and discusses:

- Types of changes in your cervix
- Common tests and treatments
- How to find the support and resources you need

You will probably have other questions, or you might be concerned about the choices you may need to make. These reactions are normal. But understanding your Pap test results—and what to expect when the results are not normal—can help you make informed decisions and plan your next steps.

A dictionary, beginning on page 31, explains terms that may be new to you. These terms will appear in **bold.**

Understanding Cervical Changes



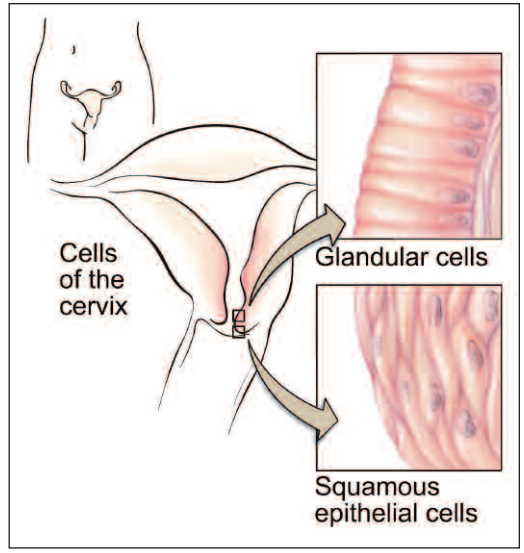
What Is the Cervix?

The cervix is the narrow, lower part of the **uterus** (where the baby grows when a woman is pregnant). During a **pelvic exam,** the doctor or nurse practitioner can see the cervix at the upper end of the **vagina.**

The cervix has an opening to the **endocervical canal.** This opening lets blood flow from the uterus into the vagina during a woman's menstrual period. During childbirth, the cervix opens much wider to let the baby pass through.

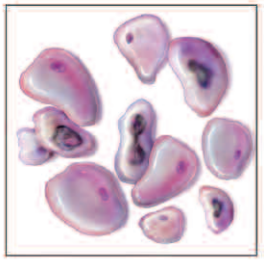
The surface lining of the cervix is made up of two different types of cells:

- Tall cells, called **glandular cells** (or columnar cells) toward the top of the endocervical canal (above the cervix). They make mucus, which helps guard the entrance to the uterus.
- Thin, flat cells, called **squamous epithelial cells** (or squamous cells). Arranged in layers, they protect the tissues underneath them.

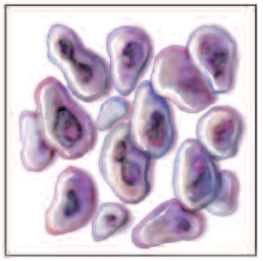


Pap tests can help health care providers find changes in these cells.

normal
cervical cells



normal and
precancerous mix



precancerous
cervical cells

Common Changes in Cervical Cells

Cervical cells can go through many types of changes that are not cancer. Many times these changes will go away on their own. These changes can be caused by:

- **Inflammation** (redness and swelling)
- An **infection (bacterial, viral,** or **yeast)**
- Growths such as **benign polyps** or **cysts**
- Changes in **hormones** from pregnancy or menopause

These cell changes are very common and are not related to cancer. But they sometimes make these cells look like **abnormal** cells. So your health care provider may suggest that you repeat your Pap test or have other follow-up tests to be certain you don't have any cell changes. (See the tables beginning on page 16 for more information.)

Although most cell changes in the cervix are not cancer, it is still important to get a Pap test at least once every 3 years to be sure.

Cell Changes Caused by HPV Are a Special Concern

Some cell changes are a sign of a certain viral infection called **HPV (human papillomavirus).** In most women, HPV infections go away on their own. Sometimes, the cells infected with HPV will become **precancerous.** These precancerous cells can become cervical cancer (called **invasive cancer of the cervix).** They can grow and spread, invading nearby tissues and possibly spreading throughout the body. An **HPV test,** which is done much like a Pap test, can detect the virus in cervical cells.

What is HPV?

- It is a very common virus.
- There are more than 100 types.
- About 15 types can cause cervical cancer.
- Some types cause warts on the fingers or feet but do not cause cancer.
- Other types cause warts in the genital area that are *not* cancerous.

Other Risk Factors for Cervical Cancer

HPV is the most important cause of and **risk factor** for cervical cancer. But studies have shown that *other factors may act together with HPV* to increase your risk of developing cervical cancer. These factors include cigarette smoking and having given birth to many children. Also, if you have a weak immune system, you may be at higher risk because your body may not be able to clear up HPV on its own. For example, if you take medicine to block your body's immune response or if you have **HIV**, you may be at higher risk.

What Should I Know About HPV Infection?

How Women Get HPV

Almost all HPV that affects the cervix is spread by sex (through intimate **genital** to genital contact including vaginal or anal intercourse, finger to genital contact, and finger to anal contact). It is rarely spread through oral sex. You are at higher risk of getting HPV if:

- You have had more than one sex partner, or
- Your sex partner(s) has had other partners.

If your health care provider finds you have HPV, your sex partner(s) should also get checked. They usually will have no symptoms. For more information about HPV and how to protect yourself, see the Resources section (pages 28–30).

How Can I Tell if I Have HPV? And What Can Happen to Me if I Have It?

Most women with HPV of the cervix do not know they have it. Most of the time, it does not cause any symptoms. Certain types of HPV can cause **warts** on the outside of the genitals, but the only way to know for sure whether you have HPV is by seeing your health care provider.

Almost all HPV infections clear up on their own. Many women with HPV will have cell changes at least briefly within a few months to a year after getting the virus. Most types of HPV do not lead to cancer. But if HPV does not go away, you are more at risk of developing a precancerous change that needs to be treated. It is best to see your health care provider on a regular basis.

"I was really afraid when I found out I have HPV, but talking to the nurse really helped me understand what it is and what we can do about it…"

—JESSICA, AGE 28

How Is an HPV Infection Treated?

Although HPV itself cannot be treated, the cell changes that it causes can be treated. Simple treatments that remove or destroy the cells may prevent cancer. This is why regular pelvic exams and Pap tests are important, along with care for cell changes.

If I Have HPV and It Goes Away, Can I Get It Again?

If you or your partner has HPV, you will share it until your bodies' immune systems get rid of the infection. If you have sex only with each other, you will not pass the HPV virus back and forth. This is because when the HPV goes away, the immune system will remember that HPV type and keep you from getting it again. Even though you are protected from one type of HPV, you are not protected from getting the many other types of HPV.

Finding Abnormal Cells

The Pap Test

The Pap test finds certain cell changes before they lead to cancer or cause you to have symptoms.

These cell changes can almost always be treated so that you don't get cancer of the cervix. Most changes in the cervix happen very slowly.

If the lab finds cell changes, the Pap test result is called "positive" or abnormal. If cells look healthy, the result is called "negative" or normal.

The Pap test is not always 100-percent accurate. If the test misses cell changes once, they can often be found the next time you have one. This is why it is very important that you have regular Pap tests. You should also go back to your health care provider for care if you get an abnormal result.

The Pap Test and DES

If you were born between 1940 and 1971, and your mother was given a synthetic form of the hormone **estrogen** called **diethylstilbestrol (DES)** when she was pregnant with you, be sure to tell your doctor. Your doctor will want to take additional cells to check for a rare type of cancer.

The HPV Test

Almost all cervical cancer begins as an infection with the virus called HPV. An HPV test, which is done much like a Pap test, can detect the virus in cervical cells.

Because health care providers know what causes most cervical cancers, it is important to get an HPV test if your health care provider recommends one.

How Is the HPV Test Done?

In an HPV test, a small number of cells is collected from the cervix, much like a Pap test. Sometimes this can be done at the same time as a Pap test. A lab then checks to see if HPV is present.

When Is an HPV Test Useful?

An HPV test can be useful in cervical cancer **screening** in two ways:

- For women of all ages, an HPV test can be useful as follow-up to a Pap test with an unclear result of **ASC-US** (see page 14).
- If you are age 30 or older, an HPV test can be very useful if it is done together with a Pap test as a routine screening for cancer once every 3 years.

  But if you are under age 30, getting an HPV and a Pap test together on a regular basis is not helpful. HPV tests can lead to unnecessary treatment, because HPV infection is very common in women under 30 and usually goes away on its own. This is why cervical cancer is very rare for women in this age group.

What Do My Pap Test Results Mean?

Your Pap test results could be normal, meaning only normal cells were found, or abnormal. The term "abnormal" could mean many different things:

- Your test was unclear
- Your test showed you have an HPV infection
- Your test showed precancer
- Your test showed cancer

See the chart on pages 14–17 for more information about what these results mean and what your health care provider might recommend you do next. If you have an abnormal result from your Pap test, it's very important that you get follow-up care and any needed tests or treatment as suggested by your health care provider.

How you can help improve the chances that your Pap test results will be correct:

- Don't have a Pap test when your menstrual period is heavy. The best time to schedule a Pap test is between 10 and 20 days after the start of your period.
- For about 2 days before a Pap test, do *not:*
  - Douche
  - Use any creams or medicine in your vagina unless your doctor tells you to do so. These may wash away cells or hide cells with changes.
- Don't have sexual intercourse for 1 or 2 days prior to your Pap test. This may cause unclear results.

"My doctor helped explain what my Pap test results meant, and what I needed to do."

—GRETCHEN, AGE 60

Why Did I Get an Unclear Result?

The Pap test is a very good screening test. But no test is perfect, including the Pap test. There are a lot of reasons why you might get an unclear result.

- **Not enough cells:** The lab sample may not contain enough cells with changes. This can happen if the area of tissue with changes is very small or hard to reach. It can also happen if not enough cells are put on the slide for the lab.
- **Cells are clumped together:** The lab sample has too many cells clumped together or hidden by blood or mucus.

Any of these things can make changes hard to spot. Changes that are missed once are often found the next time. Having another Pap test can help get a clear result.

Is It All Right if I Don't Get Tested Again Right Away?

Changes in the cervix happen very slowly. So a few months' delay in getting another test usually does not mean the difference between getting cancer and not getting cancer.

More serious problems can develop when you do not have regular Pap tests or when you do not go back to your health care provider for care after an abnormal result.

"When I learned that my Pap test results were abnormal, I wondered just what the doctor meant by 'abnormal.'"

—NANCY, AGE 42

Questions To Ask Your Health Care Provider

If you have cervical cell changes, your health care provider may want to do a series of tests or treatments, or may refer you to another provider.

- Tests help your health care provider learn more about the changes in your cervix (see page 18).
- Treatments remove or destroy cells with changes so that healthy cells can grow back (see page 24).

You should always feel at ease asking your health care provider about the reason for a test or treatment and what you should expect during and after it.

Here are some questions you may want to ask:

- What do my test results mean?
- What care is best for me?
- Is this a test designed to help you learn more about the changes in my cervix? Or is it a treatment to cure the changes?
- What are the possible results? Will I need more care afterward?
- Are there any risks or side effects? How can I manage them?
- Do I need to do anything special to prepare for this test or treatment?
- Do I need to do anything special to care for myself afterward?
- Will this affect my ability to get or stay pregnant?
- Will my health insurance pay for the treatment you suggested?

Getting a Second Opinion

If you are concerned about your Pap test results and don't feel right about your health care provider's recommendations, you may want to get a second opinion. Changes in the cervix happen very slowly. Most of the time, they take several years to become cancer. Waiting a few months before follow-up care usually does not affect the success of the care you choose. You may want to use this time to:

- Ask your health care provider to have another **pathologist** review your test results.
- Ask another specialist or gynecologist to review your care plan. (A **gynecologic oncologist**, a doctor who specializes in female cancers, is someone you might want to see.)

Many women feel uncomfortable asking for a second opinion. They may feel that they are being a bother or that they will offend their health care provider, but it is very common for women to seek one. And doctors often expect patients to ask for one. A second opinion may help you feel more sure that you have made the best choices about your health.

If you have health insurance, many insurance companies will pay for a second opinion if you ask for one.

Most of the time, your health care provider will suggest the name of another specialist if you want a second opinion. You may choose to visit this second health care provider. Or you may get names of specialists from your local medical society, a nearby hospital or medical school, or your friends or family members.

The NCI Cancer Information Service (see page 28) can help you find qualified doctors and programs through cancer centers and other cancer programs.

Finding the Support You Need

It can be scary when you find out your Pap test is abnormal. Many women have found it helpful to:

- Ask friends or loved ones for support. They can go to the health care provider's office with you while you are learning about choices in testing and treatment.
- Ask your health care provider to:
  - Help you understand medical terms that are confusing
  - Tell you how other people have handled the types of feelings that you are having
- Contact the organizations listed on pages 28–30.

"I owed it to myself and my family to find out if anything was wrong. And once I had the facts, it was easy to take the next step."

—JENNY, AGE 46

Table 1

What Your Pap Test/HPV Test Results Mean and Follow-Up

	Possible Result	What It Means to You	What Your Health Care Provider May Recommend	Possible Outcomes
NORMAL	**Normal**	Only normal cells were seen on the Pap test.	Make sure to continue receiving Pap tests at least once every 3 years.	**A False Negative (Looks Normal, But May Not Be)** The Pap test is a very good screening test, but it is not perfect. A single Pap test may miss up to 20 percent of abnormalities. Changes that are missed once are usually found the next time. This is why it is important to get a Pap test at least once every 3 years.
ABNORMAL	**Unclear** • ASC-US	**ASC-US (atypical squamous cells—of undetermined significance)** • Some cells from the lining of the outer cervix (also called squamous cells) do not appear normal. • The health care provider will need to do additional tests to clarify the results.	• Follow up with repeat Pap tests every 4–6 months. • HPV testing • Immediate **colposcopy** (a test that can be done in the doctor's office to get a magnified view of your cervix)	**Abnormal Pap Test Result** If a repeat Pap test is abnormal, your health care provider will probably recommend a colposcopy. **Positive HPV Test Result** If your HPV test is positive, your health care provider will probably recommend a colposcopy. **Negative HPV Test Result** If your HPV test is negative, your health care provider may recommend a repeat screening in 1 year. **Abnormal Colposcopy Result** If your colposcopy is abnormal, your health care provider may do a **biopsy, endocervical curettage,** or both.
	Unclear • ASC-H • AGC	**ASC-H (atypical squamous cells—cannot exclude HSIL)** • Cervical cells do not appear normal. • A high-grade lesion may be present, but the cell changes are too minor to be sure. **AGC (atypical glandular cells)** • Some glandular cells in the lining of your cervix appear abnormal.	Colposcopy	**Normal Colposcopy Result** If cervical tissue looks healthy, your health care provider may not need to do any further testing or treatment right away, but may recommend a repeat Pap test or HPV test in 6–12 months. **Abnormal Colposcopy Result** If your colposcopy is abnormal, your health care provider may do a biopsy, endocervical curettage, or both.

(TABLE 1 continues on next page)

Table 1 What Your Pap Test/HPV Test Results Mean and Follow-Up *(continued)*

	Possible Result	What It Means to You	What Your Health Care Provider May Recommend	Possible Outcomes
ABNORMAL	**LSIL**	**LSIL (low-grade squamous intraepithelial lesion)** • Squamous cells are abnormal, but are usually not precancerous.	Colposcopy	**Normal Colposcopy Result** If cervical tissue looks healthy, your health care provider may not need to do any further testing or treatment right away, but may recommend a repeat Pap test or HPV test in 6–12 months. **Abnormal Colposcopy Result** If your colposcopy is abnormal, your health care provider may do a biopsy, endocervical curettage, or both.
	Precancer • HSIL • AIS	If you have one of the results below, it is very important that you get the necessary tests and treatments. **HSIL (high-grade squamous intraepithelial lesion)** • The lesion is precancerous; without treatment, it may turn into invasive cancer. **AIS (adenocarcinoma in situ)** • A precancerous lesion is found in the glandular tissue of the cervix.	Colposcopy	**Normal Colposcopy Result** If cervical tissue looks healthy, your health care provider may still need to do further testing or treatment. **Abnormal Colposcopy Result** If your colposcopy is abnormal, your health care provider will probably do a biopsy, endocervical curettage, or both.
	Cancer	Cancer cells are present in the cervix.	Colposcopy Your health care provider will probably refer you to a gynecologic oncologist.	**Abnormal Colposcopy Result** If your colposcopy is abnormal, your health care provider will probably do a biopsy, endocervical curettage, or both.

This table is based on the American Society for Colposcopy and Cervical Pathology (ASCCP) consensus guidelines.

For more information on cells of the cervix, see page 1 of this booklet.

Table 2

Tests or Follow-Up Treatments That Health Care Providers Use for Abnormal Pap Tests

Possible Test or Treatment	What It Is	What To Expect	What Your Health Care Provider May Recommend
Repeat Pap test	• Same procedure as the first Pap test • Done if you have minor cell changes	Same procedure as the first Pap test	You may need to return for repeat Pap tests every 4–6 months until you have two normal results in a row. After two normal results in a row, you can go back to having Pap tests at least once every 3 years.
HPV testing	• A sample of cells from your cervix is tested in the lab. This looks for HPV **DNA** in the cells.	Similar to a Pap test	If the test shows that you have HPV, your health care provider may recommend a colposcopy.
Hormone therapy	• An estrogen cream applied to your vagina/cervix for a few weeks • Prescribed by your doctor if you have ASC-US and are near or past menopause	Cell changes caused by low hormone levels will go away, and changes that are due to lesions will remain.	A repeat Pap test is done after 6–8 weeks. If the results of the repeat Pap test are abnormal again, your health care provider may recommend a colposcopy.

(TABLE 2 continues on next page)

Table 2

Tests or Follow-Up Treatments That Health Care Providers Use for Abnormal Pap Tests *(continued)*

Possible Test or Treatment	What It Is	What To Expect	What Your Health Care Provider May Recommend
Colposcopy	• The most common test for women who get an abnormal Pap test result • Your health care provider uses a special tool called a **colposcope** to view your cervix from outside the body. The colposcope has a bright light with a magnifying lens.	Can be done in your health care provider's office in about 15 minutes Your health care provider: • Puts a **speculum** into your vagina to see your cervix • Applies diluted white vinegar to the surface of your cervix Areas that are abnormal turn white from the vinegar and can be seen more easily. You may feel nothing at all or a mild tingling.	Depending on the results, your health care provider may recommend further tests or treatments.
Colposcopy with biopsy and/or endocervical curettage	• Done if the colposcopy found any abnormal tissue in your cervix (see previous page) • For the biopsy, your health care provider will remove a small piece of tissue from the abnormal area. This specimen is sent to a lab for study. • For the endocervical curettage, your health care provider removes cells from inside your endocervical canal with a small spoon-shaped tool called a **curette**; this takes about 10 seconds. This specimen is sent to a lab for study.	May cause mild pain and cramping (much like menstrual cramps) You may have less pain and cramping if you take ibuprofen (brand names include Advil®, Motrin®, and Nuprin®) about an hour before the test. You may have a brown discharge from your vagina for a few days afterward; you may want to wear a pad. It takes several days for your cervix to heal. To help prevent infection and bleeding during this time: • Do not use tampons. • Do not douche. • Do not do any heavy lifting. • Do not have sex.	Depending on the results, your health care provider may recommend further tests and/or treatments.

Table 3 What Does It Mean: Results From Your Biopsy or Endocervical Curettage

Possible Result	What Your Health Care Provider May Recommend
Tissue appears normal	If cervical tissue appears normal, your health care provider may not need to do any further testing or treatment right away, but may recommend a repeat Pap test or HPV test in 6–12 months.
Tissue shows only mild changes (low-grade)	Biopsy may have removed all abnormal tissue. You may or may not need more treatment—even if some abnormal tissue remains. Your health care provider may not need to do any further testing or treatment right away, but may recommend a repeat Pap test or HPV test in 6–12 months.
Results are unclear	Your doctor may do more tests, such as **conization.**
Severe (high-grade) changes are found	You will need treatment to remove more tissue. Your doctor may perform **LEEP, cryotherapy, laser therapy,** or conization.
Invasive cancer cells are found	Your doctor will do more tests to find out the **stage** (extent) of the cancer. Your treatment will depend on: • The stage of your cancer • Your age • Whether you may want to become pregnant • Your general health • Other factors

To learn about more treatment options, see the National Cancer Institute booklet, "What You Need To Know About Cancer of the Cervix," or visit www.cancer.gov and search for "cervical cancer."

Table 4

Treatments for Major Cell Changes

Treatment	What It Is	What To Expect	What You Should Do
LEEP	**LEEP (loop electrosurgical excision procedure)** • A procedure that uses an electrical current passed through a thin wire loop to cut away tissue • Provides a tissue sample for the lab to study	This procedure is usually done in your doctor's office and takes only a few minutes. **During** Your doctor will: • Put a speculum into your vagina to view the cervix • Numb your cervix using a small needle • Begin the LEEP when the cervix is numb **After** • It takes several weeks for the tissue to heal and grow back. • You may have mild bleeding and a discharge for several weeks.	**Before** You may have less pain and cramping if you take ibuprofen (brand names include Advil®, Motrin®, and Nuprin®) about an hour before the test. **After** It takes several weeks for your cervix to heal. To help prevent infection and bleeding during this time: • Do not use tampons. • Do not douche. • Do not do any heavy lifting. • Do not have sex.
Cryotherapy	• A procedure that uses a special cold probe to freeze abnormal tissue • The tip of the probe freezes to the cervix and stays attached while a round piece of tissue is destroyed.	This procedure is usually done in the doctor's office and only takes a few minutes. **During** Your doctor will: • Put a speculum into your vagina to view the cervix • Insert a special cold probe for about 3 minutes to freeze a controlled amount of tissue • Warm the probe after the tissue has been destroyed and remove it from the cervix **After** • It takes several weeks for your cervix to heal. • You may have a watery, brownish discharge for several weeks.	**Before** You may have less pain and cramping if you take ibuprofen (brand names include Advil®, Motrin®, and Nuprin®) about an hour before the test. **After** It takes several weeks for your cervix to heal. To help prevent infection and bleeding during this time: • Do not use tampons. • Do not douche. • Do not do any heavy lifting. • Do not have sex.

(TABLE 4 continues on next page)

Table 4 Treatments for Major Cell Changes

(continued)

Treatment	What It Is	What To Expect	What You Should Do
Conization	• Uses a knife or laser to remove a cone-shaped piece of tissue, located higher up in the cervical canal • The amount of tissue removed depends on the size of the lesion.	This procedure is usually done in a hospital. **Before** Your doctor will give you anesthesia before performing the operation. **After** • Stitches are often needed to close the wound. • Bleeding may occur. • It takes several weeks for your cervix to heal.	**Before** You may have less pain and cramping if you take acetaminophen (brand names include Tylenol® and Anacin–3®) about an hour before the test. **After** It takes several weeks for your cervix to heal. To help prevent infection and bleeding during this time: • Do not use tampons. • Do not douche. • Do not do any heavy lifting. • Do not have sex.
Hysterectomy	• Surgical removal of the uterus	• This surgery is done in the hospital and usually requires an overnight stay. • Your doctor will give you an epidural or anesthesia before performing the surgery. • The doctor removes your uterus either through a surgical incision (cut) in your abdomen or through your vagina. • You will not be able to become pregnant after having this surgery.	This is major surgery. You should discuss follow-up care with your doctor.

Resources

You may want more information for yourself, your family, and your health care provider. The following services are there to help you.

National Cancer Institute

Cancer Information Service

Gives up-to-date information on cancer to patients and their families, health professionals, and the general public. Information specialists explain scientific information in plain language and respond in English or Spanish.

Toll-free: 1-800-4-CANCER (1-800-422-6237)
TTY: 1-800-332-8615
Chat online: www.cancer.gov
click on "Need Help?"
then "LiveHelp"

www.cancer.gov

The National Cancer Institute's Web site contains information about cancer causes and prevention, screening and diagnosis, treatment, symptom management, and survivorship; clinical trials; statistics, funding, and training; and NCI's programs and research activities.

Medicare

Toll free: 1-800-MEDICARE (1-800-633-4227)
TTY: 1-877-486-2048
Web site: www.medicare.gov

Medicare helps pay for screening Pap tests every 2 years. Medicare may pay more often if necessary.

National Women's Health Information Center (NWHIC)

Toll free: 1-800-994-9662
TTY: 1-888-220-5446
Web site: www.4woman.gov

NWHIC provides a gateway to women's health information. NWHIC is sponsored by the U.S. Department of Health and Human Services Office on Women's Health.

For more information about HPV, contact the organizations listed on page 30.

For More Information About HPV

U.S. Centers for Disease Control and Prevention—National STD Hotline

Toll free: 1-800-227-8922 or 1-800-342-2437
En Español: 1-800-344-7432
TTY: 1-800-243-7889
Web site: www.ashastd.org/NSTD

The CDC National STD Hotline provides free information on sexually transmitted diseases (STDs). The Hotline offers clinic referrals and written materials, and answers questions about transmission, prevention, and treatment for HPV and other infections. More information from CDC about sexually transmitted infections is available at www.cdc.gov/std/.

American Social Health Association (ASHA)

National HPV and Cervical Cancer Prevention Resource Center

Toll-free: 1-877-478-5868
Web site: www.ashastd.org/hpvccrc

A free information packet about HPV is available from the toll-free number above. The Resource Center also provides online resources and information about HPV on their Web site.

Planned Parenthood Federation of America

Toll free: 1-800-230-PLAN
Web site: www.plannedparenthood.org

For medical questions or to schedule an appointment, call the toll-free number listed above. Information about HPV and cervical cancer can be found at: www.plannedparenthood.org/sti/HPVfacts1.html.

Dictionary

abnormal (ab-NOR-mal): A finding that is not normal. In referring to a lesion or a growth, it may be cancerous, premalignant (likely to become cancer), or benign.

AGC (atypical glandular cells) (ay-TIP-i-kul GLAN-dyoo-lar): A diagnosis in which the glandular cells do not look normal, but the exact abnormality is unclear. The abnormality affects the cells in the upper part of the endocervical canal or in the lining of the uterus (the endometrium).

AIS (adenocarcinoma in situ) (AD-in-o-kar-sin-O-ma in SYE-too): A diagnosis in which a precancerous lesion is present in glandular tissue. The abnormality usually affects the cells in the endocervical canal.

ASC-H (atypical squamous cells—cannot exclude HSIL) (ay-TIP-i-kul SKWAY-mus): A condition in which squamous cells of the cervix do not look normal and a high-grade lesion may be present, but the cell changes are not sufficient to make a firm (or definitive) diagnosis.

ASC-US (atypical squamous cells—of undetermined significance) (ay-TIP-i-kul SKWAY-mus): A condition in which squamous cells of the cervix do not look normal, but the exact abnormality is unclear.

bacterial infection (bak-TEER-ee-al in-FEK-shun): Infection caused by the presence of germs in the body.

benign (beh-NINE): Not cancerous; does not invade nearby tissue or spread to other parts of the body.

Bethesda System (beh-THEZ-da): A standard classification system used for reporting Pap smear findings; describes the types of changes that affect the cervical cells.

biopsy (BY-op-see): The removal of cells or tissues for examination under a microscope. When only a sample of tissue is removed, the procedure is called a punch biopsy. When an entire lump or suspicious area is removed, the procedure is called an excisional biopsy.

cancer (KAN-sir): A term for diseases in which abnormal cells divide without control. Cancer cells can invade nearby tissues and spread through the bloodstream and lymphatic system to other parts of the body.

cell: The individual unit that makes up all of the tissues of the body. All living things are made up of one or more cells.

cervix (SER-viks): The lower, narrow end of the uterus that forms a canal between the uterus and vagina.

CIN (cervical intraepithelial neoplasia) (SER-vih-kul in-tra-eh-pih-THEEL-ee-ul NEE-o-play-zha): A general term for the growth of abnormal cells on the surface of the cervix. Numbers from 1 to 3 may be used to describe how much of the cervix contains abnormal cells.

colposcope (KUL-pah-skope): A lighted magnifying instrument used to examine the vagina and cervix.

colposcopy (kul-PAHS-ko-pee): Examination of the vagina and cervix using a lighted magnifying instrument called a colposcope.

conization (ko-nih-ZAY-shun): Surgery to remove a cone-shaped piece of tissue from the cervix and cervical canal. Conization may be used to diagnose or treat a cervical condition. Also called cone biopsy.

cryotherapy (KRY-o-THER-a-pee): Any method that uses a very cold temperature to treat disease.

curette (kyoo-RET): A spoon-shaped surgical instrument for scraping away material or tissue.

cyst (sist): A sac or capsule in the body. It may be filled with fluid or other material. Cysts are almost always benign.

DES (diethylstilbestrol) (dye-ETH-ul-stil-BES-trol): A synthetic form of the hormone estrogen that was prescribed to pregnant women between about 1940 and 1971 because it was thought to prevent miscarriages. DES may increase the risk of uterine, ovarian, or breast cancer in women who took it. DES has also been linked to an increased risk of clear cell carcinoma of the vagina or cervix in daughters exposed to DES before birth.

DNA (deoxyribonucleic acid) (dee-OKS-ee-RYE-bo-noo-KLAY-ik AS-id): The molecules inside cells that carry genetic information and pass it on from one generation to the next.

dysplasia (dis-PLAY-zha): Cells that look abnormal under a microscope but are not cancer. For abnormal cells in the cervix, this term is the same as SIL (squamous intraepithelial lesion) or CIN (cervical intraepithelial neoplasia).

endocervical canal (en-do-SER-vih-kul): The opening to the uterus in the center of the cervix.

endocervical curettage (en-do-SER-vih-kul kyoo-reh-TAHZH): The scraping of the mucous membrane of the cervical canal using a spoon-shaped instrument called a curette.

estrogen (ES-tro-jin): A hormone that promotes the development and maintenance of female sex characteristics.

false negative: A test result that indicates that a person does not have a specific disease or condition when the person actually does have the disease or condition.

genitals: The reproductive organs, especially the external sex organs.

glandular cells (GLAN-dyoo-lar): Mucus-producing cells located toward the top of the endocervical canal that help guard the entrance to the uterus. Also known as columnar cells, these cells are tall (like columns).

gynecologic oncologist (guy-neh-ko-LAH-jik on-KOL-o-jist): A doctor who specializes in treating cancers of the female reproductive organs.

HIV (human immunodeficiency virus) (IM-yoo-no-de-FISH-en-see VYE-rus): The cause of acquired immunodeficiency syndrome (AIDS).

hormone (HOR-mone): Chemical produced by glands in the body and circulated in the bloodstream. Hormones control the actions of certain cells or organs. Some hormones can also be made in a laboratory.

hormone therapy (HOR-mone THER-a-pee): Treatment that adds, blocks, or removes hormones. For certain conditions (such as diabetes or menopause), hormones are given to adjust low hormone levels. To slow or stop the growth of certain cancers (such as prostate and breast cancer), synthetic hormones or other drugs may be given to block the body's

natural hormones. Sometimes surgery is needed to remove the gland that makes hormones. Also called hormonal therapy, hormone treatment, or endocrine therapy.

HPV (human papillomavirus) (pap-ih-LO-ma-VYE-rus): A family of viruses that, in some cases, can cause abnormal tissue growth (warts). Other types can sometimes cause cancer of the cervix, vagina, vulva, anus, and penis, and oral cancer.

HPV test: Special DNA tests that determine if human papillomavirus infection is present.

HSIL (high-grade squamous intraepithelial lesion) (SKWAY-mus in-tra-eh-pih-THEEL-ee-ul LEE-zhun): A precancerous condition in which the cells of the uterine cervix are moderately or severely abnormal.

hysterectomy (hiss-ter-EK-toe-mee): An operation in which the uterus is removed.

infection (in-FEK-shun): Invasion and multiplication of germs in the body. Infections can occur in any part of the body and can be localized (in one area) or systemic (spread throughout the body). The germs may be bacteria, viruses, yeast, or fungi. They can cause a fever and other problems depending on the site of the infection. When the body's natural defense system is strong, it can often fight the germs and prevent infection. Some cancer treatments can weaken the natural defense system.

inflammation (in-fluh-MAY-shun): Redness, swelling, pain, and/or a feeling of heat in an area of the body. This is a protective reaction to injury, disease, or irritation of the tissues.

invasive cancer of the cervix (in-VAY-siv KAN-sir): Cancer that has spread from the surface of the cervix to tissue deeper in the cervix or other parts of the body.

laser therapy (LAY-zer THER-ah-pee): The use of an intensely powerful beam of light to kill abnormal cells.

LEEP (loop electrosurgical excision procedure) (ee-lek-tro-SER-ji-kul ek-SI-zhun): A technique that uses electric current passed through a thin wire loop to remove abnormal tissue. Also called loop excision.

lesion (LEE-zhun): An area of abnormal tissue change. A lesion may be benign (noncancerous) or malignant (cancerous).

LSIL (low-grade squamous intraepithelial lesion) (SKWAY-mus in-tra-eh-pih-THEEL-ee-ul LEE-zhun): This term is used in the **Bethesda System** for reporting Pap test findings and indicates that some abnormal squamous cells have grown on the surface of the cervix. Although cells classified as LSIL look abnormal, they usually behave like healthy cells—they grow and eventually die. LSIL may also be called mild dysplasia or cervical intraepithelial neoplasia-1 (CIN1).

Pap test: The collection of cells from the cervix for examination under a microscope. It is used to detect changes that may be cancer or may lead to cancer and can show noncancerous conditions, such as infection or inflammation. Also called a Pap smear.

pathologist (pa-THOL-o-jist): A doctor who identifies diseases by studying cells and tissues under a microscope.

pelvic exam: A physical examination of the vagina, cervix, uterus, fallopian tubes, ovaries, and rectum.

polyp (POL-ip): A growth that protrudes from a mucous membrane.

precancerous (pre-KAN-sir-us): A term used to describe a condition that may (or is likely to) become cancer. Also called premalignant.

risk factor: Something that may increase the chance of developing a disease. Some examples of risk factors for cancer include age, a family history of certain cancers, use of tobacco products, certain eating habits, obesity, exposure to radiation or other cancer-causing agents, and certain genetic changes.

screening: Checking for disease when there are no symptoms.

speculum (SPEK-yoo-lum): An instrument used to widen an opening of the body to make it easier to look inside.

squamous epithelial cells (SKWAY-mus eh-pih-THEEL-ee-ul): Thin, flat cells that are neatly arranged in layers to protect the tissues underneath. Cervical surface tissue is made up mostly of these cells, which are sometimes simply known as squamous cells.

stage: The extent of a cancer within the body. If the cancer has spread, the stage describes how far it has spread from the original site to other parts of the body.

uterus (YOO-ter-us): The small, hollow, pear-shaped organ in a woman's pelvis. This is the organ in which a fetus develops. Also called the womb.

vagina (vah-JYE-na): The muscular canal extending from the uterus to the exterior of the body. Also called the birth canal.

viral infection (VYE-rul in-FEK-shun): Infection caused by the presence of a virus in the body.

wart: A raised growth on the surface of the skin or other organ.

yeast infection (yeest in-FEK-shun): An overgrowth of yeast that can affect the skin (yeast rash), mouth (thrush), digestive tract, esophagus, vagina (vaginitis), and other parts of the body. Yeast infections occur most frequently in moist areas of the body.

For more information, or to order more copies of this booklet:

Call 1-800-4-CANCER
or visit www.cancer.gov

NATIONAL® CANCER INSTITUTE

NIH Publication No. 02-5199
Printed December 2004