



<http://www.womenshealth.gov>

1-800-994-9662

TDD: 1-888-220-5446

Human Papillomavirus (HPV) and Genital Warts

Q: What is human papillomavirus (HPV)?

A: Human papillomavirus (pap-uh-LOH-muh-veye-ruhss), or HPV, is the name for a group of viruses that includes more than 100 types. More than 40 types of HPV can be passed through sexual contact.

The types of HPV that infect the genital area are called genital HPV. Over half of sexually active people will have HPV at some point in their lives. But most people never know it. This is because HPV most often has no symptoms and goes away on its own.

Q: How many people have HPV?

A: Genital HPV is the most common sexually transmitted infection (STI) in the United States. About 20 million Americans ages 15 to 49 currently have HPV. And at least half of all sexually active men and women get genital HPV at some time in their lives.

Q: What is the difference between the high-risk and low-risk types of HPV?

A: Some types of HPV can cause cervical cancer. These types of HPV are called **high-risk**. Having high-risk

HPV is not the same as having cervical cancer. But high-risk HPV can lead to cancer. Most often, high-risk HPV causes no health problems and goes away on its own. High-risk HPV cases that don't go away are the biggest risk factor for cervical cancer. If you have high-risk HPV, your doctor can look for changes on your cervix during Pap tests. Changes can be treated to try to prevent cervical cancer. Be sure to have regular Pap tests so changes can be found early.

Low-risk HPV can cause genital warts. Warts can form weeks, months, or years after sexual contact with an infected person. In women genital warts can grow:

- Inside and around the outside of the vagina
- On the vulva ("lips" or opening to the vagina), cervix, or groin
- In or around the anus

In men, genital warts can grow:

- On the penis
- On the scrotum, thigh, or groin
- In or around the anus

Rarely, genital warts grow in the mouth or throat of a person who had oral sex with an infected person.

The size of genital warts varies. Some are so small you can't see them. They can be flat and flesh-colored or look bumpy like cauliflower. They often form in clusters or groups. They may itch, burn, or cause discomfort.

Low-risk HPV doesn't always cause warts. In fact, most people with low-risk HPV never know they are infected. This is because they don't get warts or any other symptoms.



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Q: How do women get HPV?

A: Genital HPV is passed by skin-to-skin and genital contact. It is most often passed during vaginal and anal sex. Although much less common, it is possible to pass HPV during oral sex or hand to genital contact.

Q: Should I get the HPV vaccine? Does it work? Is it safe?

A: It depends on your age and whether or not you already have had sex.

Right now, the HPV vaccine (called Gardasil®) is only given to females aged 9 to 26. The vaccine is given in three doses (shots) over a six-month period. Women who are pregnant should not get the HPV vaccine until after the baby is born.

The HPV vaccine works best in females who haven't been exposed to the virus. It protects against four types of HPV. Studies show the vaccine prevents about 70 percent of cervical cancers if it is given to women and girls before they have sex for the first time. It also protects against about 90 percent of genital warts. The shot works for at least five years, maybe longer. It is still under study.

The vaccine was tested on thousands of females before being approved in 2006. It was found to be safe and does not appear to cause severe side effects.

Studies are also being done on HPV vaccines for males.

Q: How do I know if I have an HPV infection?

A: Most women who have HPV infections never know it. This is one reason why you need regular Pap tests. A Pap test is

when a cell sample is taken from your cervix and looked at with a microscope. A Pap test can find changes on the cervix caused by HPV. To do a Pap test, your doctor will use a small brush to take cells from your cervix. It's simple, fast, and the best way to find out if your cervix is healthy.

If you are age 30 or older, your doctor may also do an HPV test with your Pap test. This is a DNA test that detects most of the high-risk types of HPV. It helps with cervical cancer screening. If you're younger than 30 years old and have had an abnormal Pap test result, your doctor may give you an HPV test. This test will show if HPV caused the abnormal cells on your cervix.

One other way to tell if you have an HPV infection is if you have genital warts. (See *What is the difference between the high-risk and low-risk types of HPV?* for more details.)

Q: Do I still need a Pap test if I got the HPV vaccine?

A: Yes. There are three reasons why:

1. The vaccine does not protect against all HPV types that cause cancer.
2. Women who don't get all the vaccine doses (or at the right time) might not be fully protected.
3. Women may not fully benefit from the vaccine if they got it after getting one or more of the four HPV types.

Q: How often should I get a Pap test?

A: Follow these guidelines:

- Have a Pap test 3 years after starting sexual activity or at age 21. A



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Pap test can be done each year. After three normal tests your doctor may suggest testing you only every 3 years.

- If you are older than 65 years and have had three normal Pap tests, you can choose to stop testing.
- If you had your cervix taken out as part of a hysterectomy, you do not need further Pap tests if the surgery was not due to cancer.
- Talk with your doctor or nurse about when to begin testing, how often you should be tested, and when you can stop.

Q: What happens if I have an abnormal Pap test?

A: An abnormal result does *not* mean you have HPV or cervical cancer. Other reasons for an abnormal Pap test result include:

- Yeast infections
- Irritation
- Hormone changes

If your Pap test is abnormal, your doctor may do the test again. You may also have an HPV test or these tests:

- **Colposcopy.** A device is used to look closely at your cervix. It lets the doctor look at any abnormal areas.
- **Schiller test.** The test involves coating the cervix with an iodine solution. Healthy cells turn brown and abnormal cells turn white or yellow.
- **Biopsy.** A small amount of cervical tissue is taken out and looked at under a microscope. This way the doctor can tell if the abnormal cells are cancer.

Q: Could I have HPV even if my Pap test was normal?

A: Yes. You can have HPV but still have a normal Pap test. Changes on your cervix may not show up right away; or they may never appear. For women older than 30 who get an HPV test and a Pap test, a negative result on both the Pap and HPV tests means no cervical changes or HPV were found on the cervix. This means you have a very low chance of getting cervical cancer in the next few years.

Q: Can HPV be treated?

A: No. There is no treatment or cure for HPV. But there are treatments for the changes HPV can cause on the cervix. Genital warts can also be treated.

Q: What treatments are used to get rid of abnormal cells on the cervix?

A: If you have abnormal cells on the cervix, follow up with your doctor. If the problem is mild, your doctor may wait to see if the cells heal on their own. Or your doctor may suggest taking out the abnormal tissue. Treatment options include:

- **Cryosurgery**, when abnormal tissue is frozen off.
- **Loop electrosurgical excision procedure (LEEP)**, where tissue is removed using a hot wire loop.
- **Laser treatment**, which uses a beam of light to destroy abnormal tissue.
- **Cone biopsy**, where a cone-shaped sample of abnormal tissue is removed from the cervix and looked at under the microscope for signs of



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cancer. This biopsy also can serve as a treatment if all the abnormal tissue is removed.

After these treatments, you may have:

- Vaginal bleeding
- Cramping
- Brownish-black discharge
- Watery discharge

After treatment, follow up with your doctor to see if any abnormal cells come back.

Q: How are genital warts treated?

A: Genital warts can be treated or not treated.

Some people may want warts taken off if they cause itching, burning, and discomfort. Others may want to clear up warts you can see with the eye.

If you decide to have warts removed, do not use over-the-counter medicines meant for other kinds of warts. There are special treatments for genital warts. Your doctor may treat the warts by putting on a chemical in the office. Or your doctor may prescribe a cream you can apply at home. Surgery is also an option. Your doctor may:

- Use an electric current to burn off the warts
- Use a light/laser to destroy warts
- Freeze off the warts
- Cut the warts out

Even when warts are treated, the HPV virus may remain. This is why warts can come back after treatment. It isn't clear if treating genital warts lowers a person's chance of giving HPV to a sex partner. It is not fully known why low-risk HPV causes genital warts in some cases and not in others.

If left untreated, genital warts may:

- Go away
- Remain unchanged
- Increase in size or number

The warts will not turn into cancer.

Q: What about HPV in men?

A: HPV is as common in men as in women. HPV rarely causes severe health problems in men. But it can lead to anal cancer in men who have sex with men. There is no test for HPV in men.

Q: How do I protect myself from HPV?

A: Using condoms may reduce the risk of getting genital warts and cervical cancer. But condoms don't always protect you from HPV. The best ways to protect yourself from HPV are to:

- Not have sex
- Be faithful, meaning you and your partner only have sex with each other and no one else

Q: If I had HPV that went away on its own, can I get it again?

A: Yes. There are many types of HPV, so you can get HPV again.

Q: How do I protect my partner from HPV after my warts have gone away?

A: Even if you think the warts have gone away, there may be some you can't see. And even after the warts are treated, the HPV virus may remain. Using condoms may reduce your risk of passing on genital warts.



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Q: How does HPV affect a pregnancy?

A: Most women who had genital warts, but no longer have them, do not have problems during pregnancy or birth. For women who have genital warts during pregnancy, the warts may grow or become larger and bleed. In rare cases, a pregnant woman can pass HPV to her baby during vaginal delivery. Rarely, a baby who is exposed to HPV gets warts in the throat or voice box.

If the warts block the birth canal, a woman may need to have a cesarean section (C section) delivery. But HPV infection or genital warts are not sole reasons for a C section.]

Q: How can I be sure that I don't get cervical cancer?

A: While there are no sure ways to prevent cervical cancer, you can lower your risk by:

- **Getting regular Pap tests.** The best time to get a Pap test is 10 to 20 days after the first day of your last period. Don't have the test done during your period. Also, for 2 days before your Pap test don't have sex or use douches, vaginal medicines (unless your doctor tells you to), or spermicides. Talk to your doctor about how often to get Pap tests.
- **Not smoking.** Smoking can raise your risk of cervical cancer.
- **Being faithful.** This means you and your partner only have sex with each other and no one else.
- **Using a condom EVERY time you have vaginal, anal, or oral sex.** Condoms don't always protect you from HPV. But they may reduce your risk of getting genital warts and cervical cancer. ■



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For More Information . . .

To learn more about cervical cancer, please visit the following Centers for Disease Control and Prevention web sites:

<http://www.cdc.gov/cancer/knowledge>

<http://www.cdc.gov/cancer/cervical>

For more information on HPV, call womenshealth.gov at 1-800-994-9662 or contact the following organizations:

National Cancer Institute

Human Papillomavirus (HPV) Vaccines for Cervical Cancer

Phone number: (800) 4-CANCER or (800) 422-6237

Internet address: <http://www.cancer.gov/cancertopics/hpv-vaccines> or www.cancer.gov/cancerinfo/types/cervical

Centers for Disease Control and Prevention (CDC) HPV Web Site, HHS

Phone number: (800) CDC-INFO or (800) 232-4636

Internet address: <http://www.cdc.gov/std/hpv/>

CDC National Breast and Cervical Cancer Early Detection Program, HHS

Phone number: (800) CDC-INFO or (800) 232-4636

Internet address: www.cdc.gov/cancer/nbccedp

National Institute of Allergy and Infectious Diseases (NIAID), NIH, HHS

Phone number: (866) 284-4107

Internet address:

<http://www3.niaid.nih.gov>

American Cancer Society

Phone number: (800) ACS-2345 or (800) 227-2345

Internet address: www.cancer.org

American Social Health Association

Phone number: (800) 227-8922

Internet address: <http://www.ashastd.org/hpvccrc>

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