

Genital HPV Infection - Fact Sheet



What is genital HPV infection?

Genital human papillomavirus (also called HPV) is the most common sexually transmitted infection (STI). There are more than 40 types of HPV that can infect the genital areas of males and females. These HPV types can also infect the mouth and throat.

HPV can cause serious health problems, including genital warts and certain cancers. There is no certain way to tell who will develop health problems from HPV and who will not. In most cases HPV goes away by itself before it causes any health problems, and most people who become infected with HPV do not even know they have it.

HPV is not the same as herpes or HIV (the virus that causes AIDS). Both viruses can be passed on during sex, but they have different symptoms and cause different health problems.

Who is at risk for HPV?

Anyone who is having (or has ever had) sex can get HPV. HPV is so common that nearly all sexually-active men and women get it at some point in their lives. This is true even for people who only have sex with one person in their lifetime.

How do people get HPV?

HPV is passed on through genital contact, most often during vaginal and anal sex. HPV may also be passed on during oral sex and genital-to-genital contact. HPV can be passed on between straight and same-sex partners—even when the infected person has no signs or symptoms.

Most infected persons do not realize they are infected, or that they are passing HPV on to a sex partner. A person can still have HPV, even if years have passed since he or she has had sexual contact with an infected person. It is also possible to get more than one type of HPV.

In rare circumstances, a pregnant woman with genital HPV can pass the HPV on to her baby during delivery.

What are the potential health problems caused by HPV?

Most people with HPV never develop symptoms or health problems. Most HPV infections (90%) go away by themselves within two years. But, sometimes, HPV infections will persist and can cause a variety of serious health problems. Health problems that can be caused by HPV include

- Genital warts (warts on the genital areas);
- Recurrent respiratory papillomatosis (RRP), a rare condition in which warts grow in the throat;
- Cervical cancer, cancer on a woman's cervix; and
- Other, less common, but serious cancers, including genital cancers (cancer of the vulva, vagina, penis, or anus), and a type of head and neck cancer called oropharyngeal cancer (cancer in the back of throat, including the base of the tongue and tonsils).

All cases of genital warts and RRP, and nearly all cases of cervical cancer, are caused by HPV. A subset of cancers of the vagina, vulva, anus, penis, and oropharynx, are caused by HPV.

The types of HPV that can cause genital warts are not the same as the types of HPV that can cause cancers.

Signs and symptoms of health problems caused by HPV:

Genital warts usually appear as a small bump or group of bumps in the genital area. They can be small or large, raised or flat, or shaped like a cauliflower. Healthcare providers can usually diagnose warts by looking at the genital area. Warts can appear within weeks or months after sexual contact with an infected partner—even if the infected partner has no signs of genital warts. If left untreated, genital warts might go away, remain unchanged, or increase in size or number. The types of HPV that can cause genital warts are not the same as the types of HPV that can cause cancers.

Cervical cancer usually does not cause symptoms until it is quite advanced. For this reason, it is important for women to get regular screening for cervical cancer. Screening tests can find early signs of disease so that problems can be treated early, before they ever turn into cancer.

Other cancers caused by HPV might not have signs or symptoms until they are advanced and hard to treat. Other HPV-associated cancers include some cancers of the vulva, vagina, penis, anus, and oropharynx.

RRP is a condition in which warts grow in the throat. RRP can occur in children (juvenile-onset) and adults (adult-onset). These growths can sometimes block the airway, causing a hoarse voice or trouble breathing.

How does HPV lead to health problems?

In most cases the virus goes away and it does not lead to any health problems. However, when the virus persists, or does not go away, HPV can cause normal cells to become abnormal and, most of the time you cannot see or feel these cell changes.

- Warts can appear within months after getting HPV.
- Cancer often takes years—even decades—to develop after a person gets HPV.

There is no certain way to know which people infected with HPV will go on to develop cancer or other health problems. However, persons with weak immune systems (including persons with HIV) may be less able to fight off HPV and more likely to develop health problems from it.

How common are HPV and health problems caused by HPV?

HPV (the virus): Approximately 79 million Americans are currently infected with HPV. About 14 million people become newly infected each year. HPV is so common that nearly all sexually-active men and women will get at least one type of HPV at some point in their lives.

Genital warts: About 360,000 persons in the U.S. get genital warts each year.

Cervical cancer: About 12,000 women in the U.S. get cervical cancer each year.

Other cancers that can be caused by HPV, including some vaginal, vulvar, penile, anal, and oropharyngeal cancers: Each year in the U.S., HPV is thought to cause an estimated

- 2,100 vulvar cancers,	- 1,500 anal cancers in men,
- 500 vaginal cancers,	- 1,700 oropharyngeal cancers in women,*
- 600 penile cancers,	and
- 2,800 anal cancers in women,	- 6,700 oropharyngeal cancers in men.*

*Note: Other factors, notably tobacco and alcohol use, may also play a role with HPV to cause these cancers. About 21,000 of these cancers are potentially preventable by HPV vaccines.

National Center for HIV/AIDS, Viral Hepatitis, STD, and TB Prevention
Division of STD Prevention



Recurrent respiratory papillomatosis (RRP) is very rare. It is estimated that about 820 children get juvenile-onset RRP every year in the U.S.

What is the difference between HPV and HIV?

HPV is a different virus than HIV, and causes different health problems. HPV does not live in the blood cells, but rather lives on the skin. Also, whereas HIV can lead to AIDS, genital HPV can lead to genital warts and certain types of cancer. However, persons with HIV are more likely to get HPV and to develop health problems from HPV. This is especially true for anal cancer.

Does HPV affect a pregnant woman and her baby?

Women who are pregnant can get infected with HPV. Usually these infections do not cause any problems. But sometimes

- HPV leads to genital warts, which can grow during pregnancy. Women with genital warts during the late stages of pregnancy are more likely to have children with warts in the throat, a condition called recurrent respiratory papillomatosis; however, this is a very rare condition.
- Pregnant women can develop cervical cell changes due to HPV. These changes can be detected through routine cervical cancer screening. Women should get routine cervical cancer screening, even during pregnancy.

Is there a test for HPV?

HPV tests are available to help screen women aged 30 years and older for cervical cancer. These HPV tests are not recommended to screen men, adolescents, or women under the age of 30 years. There is no general HPV test for men or women to check one's overall "HPV status." Also, there is not an approved HPV test to find HPV in the mouth or throat.

How can HPV be prevented?

There are several ways that people can lower their chances of getting HPV:

- HPV vaccines are recommended for 11- or 12-year-old boys and girls. HPV vaccines are safe and effective, and can protect males and females against some of the most common types of HPV that can lead to disease and cancer. HPV vaccines are given in three shots over six months; it is important to get all three doses to get the best protection. Boys and girls at ages 11 or 12 are most likely to have the best protection provided by HPV vaccines, and their immune response to vaccine is better than older women and men.
 - **Girls and women:** Two vaccines (Cervarix and Gardasil) are available to protect females against the types of HPV that cause most cervical cancers. One of these vaccines (Gardasil) also protects against most genital warts, and has been shown to protect against anal, vaginal, and vulvar cancers. Either vaccine is recommended for 11- and 12-year-old girls, and for females 13 through 26 years of age who did not get any or all of the shots when they were younger. These vaccines can also be given to girls beginning at 9 years of age.
 - **Boys and men:** One vaccine (Gardasil) is available to protect males against most genital warts and anal cancers. Gardasil is recommended for 11- and 12-year-old boys, and for males 13 through 21 years of age who did not get any or all of the shots when they were younger. Gay, bisexual, and other men who have sex with men should receive the vaccine through age 26 years. Males 22–26 years of age may also get the vaccine.
- For those who choose to be sexually active, condoms may lower the risk of HPV. Condoms may also lower the risk of developing HPV-related diseases, such as genital warts and cervical cancer. To be most effective, condoms should be used with every sex act, from start to finish. HPV can infect areas that are not covered by a condom – so condoms may not fully protect against HPV.
- People can also lower their chances of getting HPV by being in a faithful relationship with one partner; limiting their number of sex partners; and choosing a partner who has had no or few prior sex partners. But even people with only one lifetime sex partner can get HPV, and it may not be possible to determine if a person who has been sexually active in the past is currently infected. Because HPV is so common, and almost every sexually-active person will get HPV at some time in their lives, it is important to protect against the possible health effects of HPV.

Can people prevent health problems caused by HPV?

Yes, there are different prevention strategies for different health problems caused by HPV. HPV vaccines can prevent many diseases and cancers caused by HPV. In addition to vaccination, there are other ways to lower the risk of health problems caused by HPV.

A person can lower their risk of

- Cervical cancer by getting routine screening if they are a woman aged 21–65 years (and following up on any abnormal results);
- Oropharyngeal cancers by avoiding tobacco and limiting alcohol intake; and
- Genital warts by using condoms all the time and the right way.

Is there a treatment for HPV or health problems caused by HPV?

There is no treatment for the virus itself, but there are treatments for the health problems that HPV can cause:

- **Genital warts** can be removed with treatments applied by the provider or the person himself/herself. No one treatment is better than another. Some people choose not to treat warts, but to see if they disappear on their own. If left untreated, genital warts may go away, stay the same, or grow in size or number.
- **Cervical cancer** is most treatable when it is diagnosed and treated early. Women who get routine Pap tests and follow up as needed can identify problems before cancer develops. Prevention is always better than treatment. For more information visit www.cancer.org.
- **Other HPV-related cancers** are also more treatable when diagnosed and treated early. For more information visit www.cancer.org.
- **Recurrent respiratory papillomatosis (RRP)** can be treated with surgery or medicines. Curing RRP can sometimes require many treatments or surgeries over a period of years.



Where can I get more information?

STD information

<http://www.cdc.gov/std/>

HPV Information

<http://www.cdc.gov/hpv/>

HPV Vaccination

<http://www.cdc.gov/vaccines/vpd-vac/hpv/>

Cancer Information

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

Cervical Cancer Screening

<http://www.cdc.gov/cancer/cervical/basicinfo/screening.htm>

CDC's National Breast and Cervical Cancer Early Detection Program

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

CDC-INFO Contact Center

1-800-CDC-INFO (1-800-232-4636)

TTY: (888) 232-6348

CDC National Prevention Information Network (NPIN)

<http://www.cdcnpin.org/scripts/index.asp>

P.O. Box 6003

Rockville, MD 20849-6003

E-mail: info@cdcnpin.org

National HPV and Cervical Cancer Prevention Resource Center American Sexual Health Association (ASHA)

<http://www.ashastd.org/std-sti/hpv.html>

P. O. Box 13827

Research Triangle Park, NC 27709-3827

1-800-783-9877