What is HPV?

HPV is short for *human papilloma* (PAP-uh-LO-muh) *virus*. HPVs are a large group of related viruses. Each HPV virus in the group is given a number, which is called an *HPV type*.

Most HPV types cause warts on skin of the arms, chest, hands, and feet. Other types are found only on the body’s mucous membranes. Mucous membranes are the moist surface layers that line organs and parts of the body that open to the outside, such as the vagina, anus, mouth, and throat. The HPV types found on mucous membranes do not live on the skin. They are sometimes called *genital HPV*. Here, we are talking about genital HPV. Genital HPV is **not** the same as HIV or herpes.

Low-risk HPV types

Some types of genital HPV can cause warts on or around the genitals and anus of both men and women. In women, there may also be warts on the cervix and in the vagina. Because these genital warts very rarely grow into cancer, they are called “low-risk” viruses.

High-risk HPV types

Other types of genital HPV have been linked to cancer in both men and women. These types are called “high-risk” because they can cause cancer. Doctors worry more about the cell changes and pre-cancers linked
to these types, because they are more likely to grow into cancers over time. Common high-risk HPV types include HPV 16 and 18.

Infection with HPV is very common. In most people, the body is able to clear the infection on its own. But sometimes, the infection comes back. Chronic, or long-lasting infection, especially when it’s caused by certain high-risk HPV types, can cause cancer over time.

**How do people get HPV?**

HPV can be passed from one person to another during the skin-to-skin contact that occurs with sex. The main way HPV is spread is through sex, including vaginal, anal, and oral sex.

**You cannot get HPV from:**

- Toilet seats
- Hugging or holding hands
- Swimming in pools or hot tubs
- Having a family history of the virus
- Sharing food or utensils
- Being unclean

**You can have HPV:**

- Even if it has been years since you were sexually active
- Even if you do not have any signs or symptoms
Cancer types linked to HPV infection

For more information on any of the cancers listed here, visit our website at www.cancer.org or call our toll-free number, 1-800-227-2345.

Cervical cancer

Cervical cancer is the most serious health problem linked to HPV in women. Nearly all cervical cancers are caused by HPV.

Cervical cancer can be found early and even prevented with routine screening tests. The Pap test looks for changes in cervical cells caused by HPV infection. HPV tests look for the infections themselves by finding genes (DNA) from HPV in the cells.

Cervical cancer is preventable with vaccines and regular screening tests. More than half of the women in the United States who get cervical cancer have never had or rarely had a Pap test.
Vulvar cancer

HPV can also cause cancer of the vulva, which is the outer or external part of the female genital organs. Nearly 7 out of 10 of all vulvar cancers and almost all vulvar pre-cancers are linked to infection with the high-risk HPV types. This is a much less common cancer than cervical cancer.

There is no standard screening test for this cancer other than routine physical exams.

Vaginal cancer

More than 7 out of 10 vaginal cancers contain HPV.

Many vaginal pre-cancers also contain HPV, and these changes may be present for years before turning into a true (invasive) cancer. These pre-cancers can sometimes be found with the same Pap test that’s used to test for cervical cancer and pre-cancer. If a pre-cancer is found, it can be treated, stopping cancer before it really starts.

Penile cancer

In men, HPV can also cause cancer of the penis. HPV infection is found in about 6 out of 10 penile cancers. It’s more common in men with HIV and those who have sex with other men.

There’s no approved screening test to find early signs of penile cancer. Because almost all penile cancers
start under the foreskin of the penis, they may be noticed early in the course of the disease.

**Anal cancer**

HPV causes nearly all squamous cell cancer of the anus in both men and women. It’s more common in men with HIV and those who have sex with other men.

Screening tests for anal cancer are not routinely recommended. Still, some experts recommend anal cytology testing. (This test is also called an *anal Pap test* because it’s much like the Pap test used for cervical cancer.) This test is most often used in people thought to be at increased risk for anal cancer, such as men who have sex with men, women who have had cervical cancer or vulvar cancer, anyone who is HIV-positive, and anyone who has had an organ transplant.

**Mouth and throat cancer**

HPV is found in mouth and throat or oropharyngeal (OR-oh-fuh-RIN-jee-uhl) cancers in men and women. More than 7 out of 10 cancers found in the back of the throat, including the base of the tongue and tonsils, are HPV-related.

There’s no approved test to find early signs of oropharyngeal cancer. Still, many can be found early during routine exams by a dentist, doctor, dental hygienist, or by self-exam.
What about other HPV-related diseases?

About 360,000 people in the US get genital warts each year. Most of these cases are caused by HPV 6 or HPV 11.

Recurrent respiratory papillomatosis (PAP-ih-lo-muh-TOE-sis) or RRP causes warts to grow in the breathing tubes and lungs. It’s very rare, but can happen when a pregnant woman with genital HPV passes HPV to her baby during delivery. It may lead to breathing problems, a hoarse voice (caused by laryngeal papillomatosis – when the warts grow in the voice box), or may rarely progress to cancer of the voice box. It’s most often linked with HPV types 6 and 11.

Can HPV infection be prevented?

There’s no one way to prevent all the different types of HPV. But there are things you can do to decrease your chances of being infected. There are also vaccines that can be used to protect young people from the types that are most closely linked to cancer. As noted in the “Cancer types linked to HPV infection” section on page 3, some types of cancer linked to HPV have screening tests that can be used to find HPV infection and cell changes early. When this is done, cell changes can be treated before cancer even starts.
Avoid HPV infection

HPV is passed from one person to another during skin-to-skin contact with an infected part of the body. Although HPV can be spread during sex – including vaginal, anal, and oral sex – sex isn’t the only way for the infection to spread. All that’s needed is skin-to-skin contact with an area of the body infected with HPV. Infection with HPV also seems to be able to be spread from one part of the body to another. For instance, infection may start in the cervix and then spread to the vagina and vulva. There may be other ways to become infected with HPV that aren’t yet clear. For instance, it may be spread through shared sex toys.

The only way thought to completely prevent anal and genital HPV infection is to never allow another person to have contact with those areas of the body. Remember that HPV can be present for years without causing any symptoms. It doesn’t always cause warts or any other symptoms. Someone can have the virus and pass it on without knowing it.

HPV in women

In women, genital HPV infections occur mainly at younger ages. They are less common in women over 30. Certain types of sexual behavior increase a woman’s risk of getting a genital HPV infection, such as:

- Having sex at an early age
- Having many sex partners
• Having a partner who has had many sex partners
• Having sex with uncircumcised males

Delaying sex until you are older can help you avoid HPV. It also helps to limit your number of sex partners and avoid having sex with someone who has had many other sex partners.

**HPV in men**
The 2 main risk factors for genital HPV infection in men are having many sex partners and not being circumcised.

The risk of being infected with HPV is strongly linked to having many sex partners.

Men who are circumcised (have had the foreskin of the penis removed) have a lower chance of getting and staying infected with HPV. Men who have not been circumcised are more likely to be infected with HPV and pass it on to their partners. The reasons for this are unclear. And circumcision does not completely protect against HPV infection – men who are circumcised can still get HPV and pass it on to their partners.

A new condom should be used with each sex act. The condom should be put on BEFORE any genital, oral, or anal contact and kept on until sex is finished.
Use condoms

Condoms ("rubbers") provide some protection against HPV, but they do not completely prevent infection. Men who use condoms are less likely to be infected with HPV and are less likely to pass it on to their female partners. When condoms are used correctly every time sex occurs, they can lower the HPV infection rate in women by as much as 70%.

Condoms cannot protect completely because they don’t cover every possible HPV-infected area of the body, such as the skin on the genital or anal area. Still, condoms do provide some protection against HPV, and they also protect against HIV, some other sexually transmitted diseases, and pregnancy. Condoms (when used by the male partner) also seem to help genital HPV infections clear (go away) faster in both women and men.

Get vaccinated against HPV

There are vaccines that can be used to prevent infection with certain types of HPV. All HPV vaccines help prevent infections with HPV types 16 and 18. Some protect against other types, including types that can cause anal and genital warts. The vaccines can only be used to prevent HPV infection – they do not help treat an existing infection. To be most effective, the vaccines should be given at or before age 11 or 12.
All HPV vaccines have been shown to help prevent cervical cancers and pre-cancers caused by HPV types 16 and 18. Some have also been shown to help prevent anal, vulvar, and vaginal cancers and pre-cancers, as well as anal and genital warts. Not all HPV vaccines are approved for use in males.

Newer vaccines are being developed and tested that may provide more protection. Please see the “To learn more about HPV and cancer” section on page 12 to learn more about the HPV vaccines.

Testing for HPV

The HPV tests on the market are only approved to find cervical HPV infection in women. They can be used to help test women at certain ages and with certain Pap test findings to see if they have cervical cancer.

- There is no approved HPV test to find HPV on the penis, anus, vulva, mouth, or throat.
- There is no test for men or women to check one’s overall “HPV status.”
- Women ages 30 to 65 years should get both the HPV test and Pap test every 5 years. (Another option for these women is just a Pap test every 3 years. While this can find the cell changes caused by HPV, it does not find HPV infection.)
Treatment for HPV or HPV-related diseases

There is no treatment for the virus itself, but there are treatments for the cell changes that HPV can cause.

Cancer is easiest to treat when it’s found early – while it’s small and before it has spread. Some cancer screening tests can find early cell changes caused by HPV, and these changes can be treated before they even become cancer.

Visible genital warts can be removed with prescribed medicines. They can also be treated by a health care professional.

Prevention is always better than treatment, and there are things a person can do to help decrease their risk of HPV infection. (See the “Can HPV infection be prevented?” section on page 6.)
Things to remember about HPV

- HPV is a very common virus. Most men and women who have ever had sex will get HPV at some time in their lives, but in most cases it goes away without treatment.

- There is no treatment for HPV.

- Having HPV does not mean you will get cancer. Most of the time HPV goes away by itself.

- Certain people are at higher risk for HPV-related health problems. This includes gay and bisexual men, and people with weak immune systems (including those who have HIV/AIDS).

To learn more about HPV and cancer

From your American Cancer Society

American Cancer Society Recommendations for Human Papilloma Virus (HPV) Vaccine Use to Prevent Cervical Cancer and Pre-cancers (also in Spanish)

HPV Vaccines (also in Spanish)

HPV and HPV Testing (also in Spanish)

What Women Should Know About Cervical Cancer and the Human Papilloma Virus (also in Spanish)
Other organizations

National Cancer Institute
Toll-free number: 1-800-422-6237 (1-800-4-CANCER)
www.cancer.gov/cancertopics/factsheet/Risk/HPV

American Sexual Health Association (ASHA)
Phone: 919-361-8400
www.ashasexualhealth.org/stdsstis/hpv/

Centers for Disease Control and Prevention (CDC)
Toll-free number: 1-800-232-4636 (1-800-CDC-INFO)
www.cdc.gov/std/HPV/STDFact-HPV.htm

No matter who you are, we can help.
Visit www.cancer.org, or contact us anytime, day or night, for information and support at 1-800-227-2345.
Read this booklet to learn more about:

- HPV and its link to cancer
- How HPV is spread
- What you can do to help decrease your chances of getting HPV and the cancers linked to it

For cancer information, answers, and support, call your American Cancer Society 24 hours a day, 7 days a week at 1-800-227-2345.

Thanks to the generous donations from corporate supporters and individuals like you, we save lives by helping people stay well and get well, by finding cures, and by fighting back.

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