HPV and Cancer
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’re 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. Women may also have warts on the cervix and in the vagina. Because these genital HPV types rarely cause 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’re 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 doesn’t go away. 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 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

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

Cervical cancer

Cervical cancer is the most common 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 infection itself.
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. This is a much less common cancer than cervical cancer.

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

**Vaginal cancer**

Most vaginal cancers contain HPV.

Many vaginal pre-cancers also contain HPV, and these changes may be present for years before turning into 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 cause cancer of the penis. It’s more common in men with HIV and those who have sex with other men.
There’s no standard 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 people with HIV and in men who have sex with other men.

Screening tests for anal cancer are not routinely recommended for all people. Still, some experts recommend anal cytology testing (also called an **anal Pap test** because it’s much like the Pap test used for cervical cancer) for people at higher risk for anal cancer. This includes 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 cancers in men and women. Most cancers found in the back of the throat, including the base of the tongue and tonsils, are HPV-related. These are the most common HPV-related cancers in men.

There’s no standard screening test to find these cancers early. Still, many can be found early during routine exams by a dentist, doctor, dental hygienist, or by self-exam.

**Can HPV infection be prevented?**

There’s no one way to prevent infection with all the different types of HPV. But there are things you can do to lower your chances of being infected. There are also vaccines that can be used to protect young people from the HPV types most closely linked to cancer and genital warts.
Avoid HPV infection

HPV is passed from one person to another during 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.

It’s thought that the only way to completely prevent anal and genital HPV infection is to never allow another person to have contact with those parts 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’re 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’re 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 main risk factor for genital HPV infection in men is having many sex partners.

Men who have not been circumcised (have had the foreskin of the penis removed) are more likely to be infected with HPV and pass it on to their partners. Men who are circumcised have a lower chance of getting and staying infected with HPV. 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.

**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.

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.

Condoms must be used correctly every time sex occurs. Still, condoms can’t 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 help protect against HIV, some other sexually transmitted diseases, and pregnancy.
HPV vaccines

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, and some protect against other types, including types that can cause anal and genital warts.

There are vaccines approved for use in males and females. They can only be used to prevent HPV infection – they don’t help treat an existing infection. To work best, the vaccines should be given at or before age 11 or 12.

Contact your American Cancer Society for more on 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 after certain Pap test findings to help look for cervical cancer.

- There’s no approved HPV test to find HPV on the penis, anus, vulva, mouth, or throat.
- There’s no test for men or women to check one’s overall “HPV status.”
- The American Cancer Society recommends that women ages 30 to 65 get both an 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’s 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 provider.

Prevention is always better than treatment. There are things a person can do to help decrease their risk of HPV infection.

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).

• Most HPV infections that lead to cancer can be prevented with vaccines.

• Most cervical cancers can be prevented by regular screening.
Read this booklet to learn more about:

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

For cancer information, day-to-day help, and emotional support, call the American Cancer Society at 1-800-227-2345. We’re here when you need us – 24 hours a day, 7 days a week.