

# HUMAN PAPILLOMAVIRUS (HPV)



## ABOUT THIS DISEASE

Human papillomavirus (HPV) is a group of more than 150 related viruses. Each HPV virus in this group is given a number which is called its HPV type.

HPV is named for the warts (papillomas) some HPV types can cause. Some other types of HPV can lead to cancer.

HPV infections are so common that nearly all men and women will get at least one type of HPV at some point in their lives. More than 42 million Americans are currently infected with some type of HPV. About 13 million people in the U.S. become newly infected each year.

While in most cases HPV goes away on its own and does not cause any health problems, HPV infections can sometimes cause certain cancers and other diseases. HPV infections can cause:

- Cancers of the cervix, vagina, and vulva in women
- Cancers of the penis in men
- Cancers of the anus and back of the throat, including the base of the tongue and tonsils (oropharynx) in both men and women.

Every year in the U.S., HPV causes 37,000 cases of cancers in men and women. HPV vaccination can prevent more than 90% of these cancers (about 33,300 cases) from ever developing.

## SIGNS AND SYMPTOMS

Most people with HPV never develop symptoms or health problems. In 9 out of 10 cases, the infection goes away within two years. But occasionally, HPV infections will last longer and can cause certain cancers and other diseases, such as genital warts (usually appear as a small bump or groups of bumps in the genital area. They can be small or large, raised or flat, or shaped like a cauliflower).

HPV cancers usually do not have symptoms until they are quite advanced, very serious and hard to treat. Cancer often takes years, even decades, to develop after a person gets HPV. There is no way to know which people who have HPV will develop cancer or other health problems. People with weak immune systems (including individuals with HIV/AIDS) may be less able to fight off HPV and more likely to develop health problems from it.

## TRANSMISSION

HPV is transmitted through intimate skin-to-skin contact during vaginal, anal, or oral sex. A person can get HPV even if their partner doesn't have any signs or symptoms of HPV infection. Most people do not realize they are infected. They also don't know that they may be passing HPV to their sex partner(s). You can develop symptoms years after being infected, making it hard to know when you first became infected. It is possible for someone to get more than one type of HPV.

Although uncommon, sometimes a pregnant woman with HPV can pass the virus to her baby during delivery. The child might develop recurrent respiratory papillomatosis (RRP), a rare but dangerous condition where warts caused by HPV grow inside the throat.

There have not been any documented cases of people getting HPV from environmental surfaces, such as toilet seats. However, someone could be exposed to HPV from objects shared during sexual activity, if the object has been used by an infected person.

## **DIAGNOSIS**

Most people with HPV do not know they are infected and never develop symptoms or health problems from it. Some people find out they have HPV when they get genital warts. A healthcare provider can usually diagnose warts by looking at the genital area. Women may be diagnosed with HPV when they get an abnormal Pap test result (during cervical cancer screening).

While there is screening for cervical cancer, there is no routine screening for the other 20,000 cancers caused by HPV infections each year in the U.S. Often these cancers, such as cancers of the back of the throat (oropharyngeal) and cancers of the anus/rectum, are not detected until later stages when they are difficult to treat.

## **TREATMENT**

There is no specific treatment for HPV infection. Medical management depends on treatment of the specific clinical signs of the infection (such as genital warts or abnormal Pap smear).

## **IMMUNITY**

Infection with one type of HPV does not prevent infection with another type.

The HPV9 vaccine protects against nine types of HPV, including those types responsible for the majority of HPV-associated cancers.

## **RISK IN HAWAII**

HPV is the most common sexually transmitted infection in the United States. HPV is so common that almost every unvaccinated person who is sexually active will get HPV at some time in their life. Because health care providers are not required to report HPV infections to the Department of Health, the number of cases occurring annually in Hawaii is unknown.

## **PREVENTION**

The HPV vaccine prevents infection with HPV types that are associated with many cancers.

For HPV vaccine to be most effective, the series should be given before exposure to HPV. Preteens should receive all recommended doses of the HPV vaccine series long before they begin any type of sexual activity. However, people who have already been infected with one or more HPV types can still get protection from other HPV types in the vaccine.

All preteens aged 11 or 12 years should receive two doses of HPV vaccine, with the second dose administered 6 – 12 months after the first.

If the first HPV dose is administered on or after age 15 years, a 3-dose series is recommended. The 3-dose schedule is also recommended for persons with certain medical conditions affecting the immune system. The second dose should be administered 1 – 2 months after the first dose, and the third dose is recommended 6 months after the first dose.

“Catch-up” vaccination is recommended through age 26 years for persons not previously immunized. HPV vaccines are not licensed for use in people older than 26 years of age.

## **ADDITIONAL RESOURCES**

- CDC Website: <https://www.cdc.gov/hpv/>
- Vaccine Information Statement: HPV (Human Papillomavirus) Vaccine: <https://www.cdc.gov/vaccines/hcp/vis/vis-statements/hpv.pdf>

## **INFORMATION FOR CLINICIANS**

- CDC Website: <https://www/cdc.gov/hpv/hcp/clinical-overview/index.html>