



The Facts About Human Papillomavirus

What is HPV?

HPV infection is a sexually transmitted infection caused by the human papillomavirus (HPV). More than 100 types of HPV have been identified; of these, about 40 HPV types infect the genital area.¹ HPV types are classified as high-risk or low-risk, according to their association with cancer, with approximately half being high risk and about half being low risk.²

How common is HPV infection?

HPV infection is the most common STI in the United States. It is estimated that 79 million individuals are currently infected with HPV, with 14 million new infections occurring each year.³ Most sexually active persons will acquire an HPV infection at some point in their lives.³ Recently, a large study of females in the United States showed that 25% of all girls aged 14-19 had an active genital HPV infection.⁴

How is HPV spread?

HPV can be spread by vaginal, anal, or oral sex, or by skin to skin contact. Mothers can also spread HPV infection to their babies at the time of birth.

Does HPV infection cause symptoms?

HPV infection rarely causes symptoms. More than 90% of infected people will experience no symptoms.²

What are the symptoms of HPV infection?

Symptoms depend on the type of HPV that is causing the infection. Low-risk strains may cause genital warts, usually about 2-3 months after exposure.⁴ Warts may appear in the genital region or around the mouth, wherever the exposure to the infection occurred. Because high risk types of HPV do not cause warts, infected people rarely have symptoms. If cancer develops in a person infected with a high risk type of HPV, they may begin to experience symptoms related to the cancer.

Are there treatments available for HPV infection?

There is no available treatment for HPV infection; however there are treatments available for the complications of HPV infection. For instance, genital warts may be treated by electrocautery (burning), cryotherapy (freezing), surgical removal, topical medicine, and injectable medicine. Cervical cancer and other cancers associated with HPV can also be treated by surgical removal and other cancer treatments, when necessary. Fortunately, about 90% of HPV infections are cleared by the immune system within two years of acquiring the infection.⁵

What complications can result from HPV infection?

Complications of HPV infection depend on the type of virus that is causing the infection. Low-risk types cause: genital warts^{1,4}, juvenile⁶ and adult⁴ onset respiratory papillomatosis, and mild abnormalities of the cervix². High-risk types cause a number of cancers in men and women, including cancer of the cervix, penis, vulva, vagina and anus, as well as a group of oral and throat cancers.^{7,11}

Most HPV infections resolve on their own, but some HPV infections are not cleared by the body's immune system. These infections are said to be "persistent." When a high-risk HPV type causes a persistent infection of the cervix, there is a risk of cervical cancer developing. More than 99% of cervical cancer cases are associated with HPV infection⁸



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Unfortunately, HPV infection of the cervix does not usually cause symptoms. Cervical cancer can progress to a late stage before symptoms occur. Therefore, it is recommended that young women get screened with Pap tests. A Pap test will look for abnormal cells on the cervix that can indicate that cancer is developing. If abnormal cells are found on a Pap test, there are several treatments available to prevent the growth of cancer. Pap tests can also be used to check for evidence of high-risk HPV infections. Even though there are no available medications to treat HPV infections, knowing that high-risk HPV is present will help health care providers decide if more tests or other treatments are necessary.

The American Cancer Society estimates that over 12,000 females in the United States will be diagnosed with cervical cancer and that about 4,100 females in the US will die from cervical cancer in 2015.⁹

Can HPV infection be prevented?

Yes; the most reliable method of preventing HPV infection is abstinence from sexual activity, including skin-to-skin contact.¹⁰ Refraining from sexual activity until a person is in a lifelong, mutually monogamous relationship with an uninfected person can prevent the sexual transmission of HPV.

Three vaccines are now available for prevention of some of the high-risk types of HPV that are responsible for causing cancer. The latest vaccine was approved in December 2014 and protects against nine strains of the virus (HPV 6,11,16,18,31,33,45,52,and 58). The new vaccine is designed to prevent cancers and pre-cancers, as well as 90% of anogenital warts and most cases of recurrent respiratory papillomatosis.¹¹

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