

Human Papillomavirus (HPV) (Genital Warts)

Human Papillomavirus (HPV) is a family of over 100 sexually transmitted infection viruses that affect different parts of the body. Some strains of HPV cause warts on the feet, hands, and other parts of the body, while other strains are sexually transmitted and cause warts that affect skin in the genital area (i.e., the vulva, vagina, cervix, rectum, anus, penis, or scrotum).

The strains of HPV that are sexually transmitted will be discussed on this page. There are more than 30 strains of HPV that affect the genital area, and depending on the type of HPV involved, symptoms can be in the form of wart-like growths or abnormal cell changes, especially in a woman's cervix, that can be precancerous.

PREVALENCE

In the United States, HPV is considered to be the most common sexually transmitted infection (STI, which is also called an STD or sexually transmitted disease). Approximately 5.5 million people are newly infected with genital HPV each year and about 20 million people are currently infected. Some studies estimate that 50% to 75% of sexually active people are exposed to at least one strain of HPV, although most people do not develop symptoms. Because HPV is so common, a person can have very few sexual partners and still come into contact with this virus.

TRANSMISSION

HPV is transmitted through vaginal, anal, and oral sex and can be transmitted by skin-to-skin genital contact or rubbing. HPV can spread whether or not warts are visible. Because genital HPV infections are often unseen, they can be transmitted by sex partners who do not know they're infected. A pregnant mother who is infected with HPV can also transmit the virus to her infant during vaginal childbirth.

SYMPTOMS

A majority of HPV infections have no signs or symptoms. Most people who are infected are completely unaware but can continue to transmit the virus to sex partner(s). Warts typically appear within 3 weeks to 6 months after sexual contact with an infected person, but they can also take years to appear. This time period makes it difficult to track the infection as it is passed from one partner to the next.

Depending on the type of HPV, some women have infections that cause abnormal cell growth (dysplasia) on the female cervix. A woman may only find out she has HPV when her annual Pap smear results indicate abnormal cervical cell changes. Other types of HPV cause visible genital warts. In women, these growths may develop inside the vagina, where they are hard to detect. They can also develop on the lips of the vagina or around the anus. In men, they usually appear on the penis, but they are also found on the scrotum or around the anus. Very rarely, growths can be found in the mouth or the throat.

The growths are typically soft, moist, pink or red swellings and are usually painless but may itch. If allowed to grow, they can block the openings of the vagina, urethra, or anus and become very uncomfortable. They can be single or multiple growths or bumps, raised or flat, small or large and sometimes form a

cauliflower-like shape. Depending on their location, genital warts can cause sores and bleeding.

DANGERS OF HPV INFECTION

A small number of genital HPV strains are linked to cancers of the cervix, vulva, vagina, anus, and penis. But the strains of HPV that cause genital warts do not seem to be directly associated with the strains that cause cancer. However, since a person can acquire multiple strains of HPV, medical providers consider any case of genital warts to be a warning of potentially cancerous conditions.

Most people recover from HPV infections with no health problems at all. It is not known why some people develop long-term recurrent HPV infections, pre-cancerous abnormal cell changes, or cervical cancer. The symptoms of most genital HPV infections go away by themselves within 6 months. Many people develop immunity, a natural protection, against different types of HPV.

If a pregnant woman has ever had HPV in the past, she might experience a rapid growth of genital warts during her pregnancy because of the change in her hormone levels. This condition must be monitored closely especially during delivery because she can transmit the virus to her infant. If necessary, the medical provider can remove the warts before the birth to avoid excessive bleeding or a cesarean section may be necessary if the warts are likely to bleed heavily.

When a person's immune system is weakened by diabetes, an organ transplant, Hodgkin's disease, HIV/AIDS, or other serious health conditions, they might experience an increase in the size and number of genital warts, and they might experience more frequent recurrences.

DIAGNOSIS

Genital warts are diagnosed by a visual inspection from your medical provider. They might also perform a vinegar wash to make the warts easier to see. For women, the Pap smear will also be performed to detect any changes in the cervical cells caused by HPV infection. If the Pap smear results indicate abnormal cell changes, a woman will typically require a colposcopy (a procedure used to magnify cervical and vaginal tissue) and a biopsy (a procedure that removes tissue samples to be examined under a microscope).

Most men with HPV don't have any symptoms and so diagnosing HPV in men is difficult. Since there is no treatment for asymptomatic HPV, most men are not treated. It is possible for men to think they have no symptoms when they actually do. Sometimes a medical provider can see small warts that have gone unnoticed, particularly if they are right inside the opening of the penis.

Men and women should stop having sexual contact as soon as they know or think they have genital warts and they should seek treatment immediately.

TREATMENT

The goal of the following treatments is to control the virus, but it is important to understand that the underlying HPV infection can't be cured. Like any type of viral infection, HPV stays in your body and can cause warts to appear in the future, particularly when your immune system is suppressed.

There are many ways to remove visible genital warts, depending on their size and location. A medical provider can get rid of smaller warts by freezing them off through cryotherapy, burning them off with an acidic chemical, or removing them through laser surgery. All three procedures may require multiple follow-up visits or treatments. Some patients with HPV are also able to use a cream at home to help treat the warts.

If a woman has cervical dysplasia, the treatment depends on the severity of the diagnosis and the risk of sexual transmission. For less serious cell changes, a woman may be asked to repeat the Pap Smear test and/or to treat her cervix with an antibiotic cream. A medical provider might also choose to remove the affected cells with cryotherapy, laser surgery, or electrocautery.

COPING WITH HPV INFECTION

Once you have been treated for HPV, the most important thing you can do for your health is to continue to have regular check-ups. If you have been recently diagnosed and treated, you will need more frequent exams to be sure that the warts have been removed. After a successful treatment men and women should continue to examine their genitals regularly to check for warts and to have annual physical exams to check for any new warts or growths that you can't see. Women should also receive annual Pap smear tests to identify any cervical cell changes.

As with other viral infections, you are less likely to experience genital wart recurrences if you take care of your health. This means that you want to maintain a strong immune system by eating right, getting exercise, getting enough sleep, managing your stress, and avoiding alcohol, tobacco, or other illegal drugs. Maintaining a healthy lifestyle will decrease the chances of recurrences, and in time, most people stop having any recurrences.

You can reduce your risk of transmitting HPV to a sexual partner by abstaining from sex, by finding nonsexual ways to express intimacy, by avoiding contact with any wart, and/or by using condoms correctly and consistently every time you have sex. Like all safer sex methods (with the exception of abstinence) using condoms is not 100% safe. Genital warts not covered by a condom can still transmit the virus, but condoms are still a crucial step to minimize risk for people who continue to be sexually active.

Being diagnosed with HPV does not mean that you cannot have sex ever again! It is important to communicate with your sex partner(s) and give them information about HPV to make informed decisions about sexual activity. Telling a partner that you have HPV, or any other type of STI, can be a difficult and challenging experience. Some partners may react by needing some time to think about how this affects your relationship. Some partners may have questions, might want to get tested themselves, and might make the decision not to have sex for a while. It is completely normal to feel frustrated, depressed, angry, or guilty about having HPV. Most people diagnosed with an STI have the same concerns. By taking care of your health, practicing safer sex, and informing yourself and your partners, you are taking the necessary steps to minimize the risk of recurrences and transmitting the virus to others.

PREVENTION – NEW HPV VACCINE AVAILABLE

The new HPV vaccine, **Gardasil®** is now available for UHS patients. This vaccine helps protect against the following diseases caused by Human Papillomavirus (HPV): cervical cancer, genital warts, and abnormal and precancerous cervical, vaginal, and vulvar lesions. This vaccine helps prevent these diseases; it will not treat them. Gardasil is for girls and women 9 through 26 years of age. This vaccine is given in three doses over a six month period. The second dose is given 2 months after the first, and the third dose is given 6 months after the first dose. The cost for each dose is \$140, if purchased at the University Health Service.

APPOINTMENTS AT UHS

The University Health Service (UHS) offers a full range of health care services for men and women. You can schedule an appointment with your primary care provider (PCP) by calling 275-2662. Women can also schedule an appointment with one of the women's health nurse practitioners. All visits to UHS are confidential.

UHS patients who are interested in receiving Gardasil®, the new HPV vaccine, are asked to call 275-2662 to schedule an appointment with their primary care provider (PCP) or one of the women's health nurse practitioners at UHS. For more information about Gardasil®, check Prevention above.

LINKS

For more information about HPV, you can visit:

Centers for Disease Control and Prevention (CDC):
<http://www.cdc.gov/std/HPV/STDFact-HPV.htm>
<http://www.cdc.gov/nip/vaccine/hpv/hpv-faqs.htm>

Planned Parenthood:
<http://www.plannedparenthood.org/>

American Social Health Association (ASHA):
<http://www.ashastd.org/stdfaqs/hpv.html>
http://www.ashastd.org/pdfs/HPV_factsheet.pdf

National Cancer Institute:
<http://www.cancer.gov/cancertopics/factsheet.Risk/HPV>