



Human Papillomavirus (HPV)

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June, 2001

Human papillomavirus (HPV) is one of the most common sexually transmitted disease (STD) in this country. It is estimated that as many as 40 million Americans are infected with HPV, and the incidence of this disease appears to be increasing. Scientists have identified more than 60 types of HPV. Some types of the virus cause common skin warts. About one-third of the HPV types can be spread through sexual contact. Several types of HPV can lead to genital warts, the most recognizable sign of genital HPV infection. Certain other types of HPV have been closely associated with the development of cervical cancer and other genital cancers.

Like many STD's, HPV infection often does not cause visible symptoms. One study sponsored by the National Institute of Allergy and Infectious Diseases (NIAID) reported that almost half of the women infected with HPV had no obvious symptoms. Because the virus can remain latent in the skin, infected persons may not be aware of their infection and the potential risk of complications.

Genital Warts

Genital warts (condyloma acuminata or venereal warts) are caused by certain types of HPV. They are spread by sexual contact with an infected partner and are very contagious. Approximately two-thirds of persons who have sexual contact with a partner with genital warts will develop this disease, usually within 3 months of contact. It is estimated that as many as 1 million new cases of genital warts are diagnosed in the United States each year.

In women, the warts occur on the vulva, labia, inside the vagina, on the cervix, or around the anus. In men, genital warts usually appear on the tip of the penis; however, they also may be found on the shaft of the penis, on the scrotum, or around the anus. Genital warts often occur in groups and can be very tiny or can accumulate into large masses on the genital tissue. Left untreated, genital warts may eventually develop a fleshy, cauliflower-like appearance. In other cases, they may disappear. However, because there is no way to predict whether the warts will grow or disappear, people who suspect that they have genital warts should be examined and treated.

Diagnosis

It is important for a person who thinks he or she may have genital warts to see their primary care provider so that other types of similar-looking infections or conditions can be ruled out or treated. Genital warts are usually diagnosed by direct visual examination.

Woman with genital warts should be examined for possible HPV infection of the cervix. Their primary care provider may be able to identify some otherwise invisible lesions by applying vinegar (acetic acid) to areas of suspected infection. This solution causes infected areas to whiten, which makes them more visible, particularly if a procedure called colposcopy is performed. During colposcopy, a magnifying instrument is used to view the vagina and cervix. In some cases, it is necessary to do a biopsy of cervical tissue. This involves taking a small sample of tissue from the cervix and examining it under the microscope.

The possible presence of cervical HPV infection may also be indicated by a Pap smear test. A Pap smear is a microscopic examination of cells taken from the cervix in order to detect cervical cancer. Abnormal Pap smear results can indicate possible HPV infection. It is important for women with abnormal Pap smears to have further examination to detect and treat cervical problems.



Treatment

Depending on factors such as their size and location, genital warts are treated in several ways. A health care provider may recommend treatment with trichloroacetic acid (TCA), which is applied undiluted to the infected area and washed off several hours later. An alternative treatment is a 20 percent podophyllin solution, which is applied to the affected area and later washed off. Pregnant women should not use podophyllin because it is absorbed by the skin and may cause birth defects in babies.

Small warts can be removed by cryosurgery (freezing) or electrocautery (burning). Surgery is occasionally needed to remove large warts that have not responded to other treatment. Health care providers at some medical centers also use laser surgery to remove genital warts.

It is important to remember that although treatment can eliminate the warts, it does not eradicate the virus, and warts often reappear after treatment.

Complications

As mentioned above, scientists have found an association between several types of HPV and the development of cervical cancer, vulvar cancer, anal cancer, and cancer of the penis (a rare cancer). Factors that may accelerate the conversion of HPV-induced condyloma acuminata to malignancy include cigarette smoking, diabetes, poor nutrition, in utero diethylstilbestrol exposure, and simultaneous herpes simplex infection.

Although most HPV infections do not progress to cancer, it is particularly important for women who have had evidence of HPV infection or genital warts to have regular Pap smears. Potentially precancerous cervical disease is readily treatable.

Prevention

As with all sexually transmitted diseases, total abstinence remains the only 100% assured way of avoiding venereal warts. A monogamous sexual relationship with a known healthy (disease-free) partner is the most practical way of avoiding sexually transmitted diseases.

According to the American Cancer Society and the Centers for Disease Control, recent research has shown that condoms do not protect against infection with HPV. This is because HPV can be transmitted with any skin-to-skin contact with any HPV-infected area of the body, such as the skin of the genital or anal area not covered by a condom.

The absence of visible warts cannot be used to decide whether caution is warranted, since HPV can be passed on to another person even when there are no visible warts or other symptoms. Abstinence (no skin-to-skin, mucus membrane contact) is the only effective means of prevention.

For more information about HPV and other Sexually Transmitted Diseases:

- <http://www.unspeakable.com/truth.html>
- <http://www.plannedparenthood.org>
- <http://www.ashastd.org>
- <http://www.sexhealth.com/sexhealth/user/display.cfm>
- <http://www.cdc.gov/nchstp/dstd/dstdp.html>

Your doctor knows you and your family best. Nothing takes the place of talking directly with your doctor about your health and questions that you have. The information provided here is not medical care or treatment and is not specific to your situation. You need to contact your own doctor for your medical care.