What is genital HPV infection?

Genital HPV infection is a sexually transmitted disease (STD) that is caused by human papillomavirus (HPV). Human papillomavirus is the name of a group of viruses that includes more than 100 different strains or types. More than 30 of these viruses are sexually transmitted, and they can infect the genital area of men and women including the skin of the penis, vulva (area outside the vagina), or anus, and the linings of the vagina, cervix, or rectum. Most people who become infected with HPV will not have any symptoms and will clear the infection on their own.

Some of these viruses are called "high-risk" types, and may cause abnormal Pap tests. They may also lead to cancer of the cervix, vulva, vagina, anus, or penis. Others are called "low-risk" types, and they may cause mild Pap test abnormalities or genital warts. Genital warts are single or multiple growths or bumps that appear in the genital area, and sometimes are cauliflower shaped.

How common is HPV?

Approximately 20 million people are currently infected with HPV. At least 50 percent of sexually active men and women acquire genital HPV infection at some point in their lives. By age 50, at least 80 percent of women will have acquired genital HPV infection. About 6.2 million Americans get a new genital HPV infection each year.

What are the signs and symptoms of genital HPV infection?

Most people who have a genital HPV infection do not know they are infected. The virus lives in the skin or mucous membranes and usually causes no symptoms. Some people get visible genital warts, or have pre-cancerous changes in the cervix, vulva, anus, or penis. Very rarely, HPV infection results in anal or genital cancers.

Genital warts usually appear as soft, moist, pink, or flesh-colored swellings, usually in the genital area. They can be raised or flat, single or multiple, small or large, and sometimes cauliflower shaped. They can appear on the vulva, in or around the vagina or anus, on the cervix, and on the penis, scrotum, groin, or thigh. After sexual contact with an infected person, warts may appear within weeks or months, or not at all.

Genital warts are diagnosed by visual inspection. Visible genital warts can be removed by medications the patient applies, or by treatments performed by a health care provider. Some individuals choose to forego treatment to see if the warts will disappear on their own. No treatment regimen for genital warts is better than another, and no one treatment regimen is ideal for all cases.

What is the connection between HPV infection and cervical cancer?

All types of HPV can cause mild Pap test abnormalities which do not have serious consequences. Approximately 10 of the 30 identified genital HPV types can lead, in rare cases, to development of cervical cancer. Research has shown that for most women (90 percent), cervical HPV infection becomes undetectable within two years. Although only a small proportion of women have persistent infection, persistent infection with "high-risk" types of HPV is the main risk factor for cervical cancer.

A Pap test can detect pre-cancerous and cancerous cells on the cervix. Regular Pap testing and careful medical follow-up, with treatment if necessary, can help ensure that pre-cancerous changes in the cervix caused by HPV infection do not develop into life threatening cervical cancer. The Pap test used in U.S. cervical cancer screening programs is responsible for greatly reducing deaths from cervical cancer. For 2004, the American Cancer Society estimates that about 10,520 women will develop invasive cervical cancer and about 3,900 women will die from this disease. Most women who develop invasive cervical cancer have not had regular cervical cancer screening.

How do people get genital HPV infections?

The types of HPV that infect the genital area are spread primarily through genital contact. Most HPV infections have no signs or symptoms; therefore, most infected persons are unaware they are infected, yet they can transmit the virus to a sex partner. Rarely, a pregnant woman can pass HPV to her baby during vaginal delivery. A baby that is exposed to HPV very rarely develops warts in the throat or voice box.

How is genital HPV infection diagnosed?

Most women are diagnosed with HPV on the basis of abnormal Pap tests. A Pap test is the primary cancer-screening tool for cervical cancer or pre-cancerous changes in the cervix, many of which are related to HPV. Also, a specific test is available to detect HPV DNA in women. The test may be used in women with mild Pap test abnormalities, or in women >30 years of age at the time of Pap testing. The results of HPV DNA testing can help health care providers decide if further tests or treatment are necessary.

No HPV tests are available for men.

How can people reduce their risk for genital HPV infection?

The surest way to eliminate risk for genital HPV infection is to refrain from any genital contact with another individual.

For those who choose to be sexually active, a long-term, mutually monogamous relationship with an uninfected partner is the strategy most likely to prevent future genital HPV infections. However, it is difficult to determine whether a partner who has been sexually active in the past is currently infected.

For those choosing to be sexually active and who are not in long-term mutually monogamous relationships, reducing the number of sexual partners and choosing a partner less likely to be infected may reduce the risk of genital HPV infection. Partners less likely to be infected include those who have had no or few prior sex partners.

HPV infection can occur in both male and female genital areas that are covered or protected by a latex condom, as well as in areas that are not covered. While the effect of condoms in preventing HPV infection is unknown, condom use has been associated with a lower rate of cervical cancer, an HPV-associated disease.

Where can I get more information?

Division of STD Prevention (DSTDP)
Centers for Disease Control and Prevention
http://www.cdc.gov/std

Personal health inquiries and information about STDs:

CDC National STD and AIDS Hotlines
(800) 227-8922 or (800) 342-2437
En Espanol (800) 344-7432
TTY for the Deaf and Hard of Hearing (800) 243-7889

National HPV and Cervical Cancer Prevention Hotline
(919) 361-4848

Resources:

CDC National Prevention Information Network (NPIN)
P.O. Box 6003
Rockville, MD 20849-6003
1-800-458-5231
1-888-282-7681 Fax
1-800-243-7012 TTY
E-mail: info@cdcnpin.org
http://www.cdcnpin.org

American Social Health Association (ASHA)
P. O. Box 13827
Research Triangle Park, NC 27709-3827
1-800-783-9877
http://www.ashastd.org
STD questions: std-hivnet@ashastd.org

Is there a cure for HPV?

There is no "cure" for HPV infection, although in most women the infection goes away on its own. The treatments provided are directed to the changes in the skin or mucous membrane caused by HPV infection, such as warts and pre-cancerous changes in the cervix.

Printable versions of this and other STD fact sheets are available at:
http://www.cdc.gov/std/healthcomm/fact_sheets.htm

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