



WHAT IS THE HUMAN PAPILLOMAVIRUS?

HPV, human papillomavirus is the virus that can cause warts. It is an infection that is transmitted through direct skin-to-skin contact. When genital skin is involved, the infection is generally considered “sexually-transmitted.”

There are over 120 different types of HPV. Most HPV infections do not cause any health problems at all because they are eliminated by the person’s immune system before they cause any changes in the body. Some HPV types produce warts on the hands or feet, but not on the genitals. Others produce warts only on the genitals.

There are 40 HPV types that affect only the genital area; most are completely asymptomatic and benign. Of these 40, a few types can cause mild cellular changes (dysplasia) in cervical cells; some can lead to cervical cancer if left undiagnosed and untreated for many years.

DO MANY COLLEGE STUDENTS GET HPV?

In a study done on female college students at Rutgers University Student Health Service, it was discovered that **most sexually active students acquire HPV at some point during college**. According to the Centers for Disease Control and Prevention, it has been estimated that up to 80% of adults have had genital HPV at some point during their life. Although many of us are exposed to genital HPV types, only a small number will develop problems as a result of exposure. **It has been estimated that less than 5% of people with genital HPV will develop warts, and about 5% of women with genital HPV will develop cervical abnormalities**. Most people who have genital HPV but have no warts will have the HPV resolve spontaneously without any treatment.

IF HPV IS SO COMMON, WHAT’S THE BIG DEAL?

Some men and women who are exposed to genital HPV will develop genital warts. In a small number of women, the HPV will spread inside the vagina and affect the cervix, producing a dysplastic or precancerous change in the cells. Certain types of HPV, the ones that cause cervical dysplasia, are oftentimes referred to as “high risk” types. If these dysplastic changes persist for a number of years, some may progress into cervical cancer. The American Cancer Society estimated that 12,900 new cases of cervical cancer were diagnosed in the United States in 2001 and that there were 4,400 deaths from cervical cancer.

HOW DO I CATCH HPV?

Most people who are infected with HPV have no signs or symptoms. It is therefore easy to unknowingly spread the virus to a sexual partner through intimate contact. Direct skin-to-skin contact between the genitals, mouth or anus can transmit the virus.

Oral warts do not generally develop after having oral sex with a partner who has genital HPV infections. There are a few reports linking oral HPV with dysplasia in the mouth. If you have oral sex, consider dental dams/condoms to decrease transmission of the virus.

WILL I KNOW IF I HAVE WARTS?

Genital warts are flesh colored, firm growths or bumps that appear on the vulva, in or around the vagina or anus, on the cervix, and on the penis, scrotum, groin, or thigh. The warts may be raised or flat, single or multiple, small or large, and some may cluster together to form a cauliflower-like shape.

IF I DON’T HAVE WARTS, HOW WOULD I KNOW IF I HAVE HPV?

HPV is frequently first discovered on the Pap smear because the cells on the cervix are easily infected with the virus. The cells show changes suggestive of infection with HPV. In the last few years DNA tests have become available that can actually detect HPV and the type. These DNA tests are not offered routinely at McKinley Health Center, but may be ordered by your health care provider if they feel it will help with interpretation of your Pap smear result. When cervical dysplasia is diagnosed, it’s almost always caused by the human papillomavirus. Testing for external HPV is available through outside providers.

WHY SHOULDN'T EVERYONE HAVE A DNA TEST FOR HPV?

It has been estimated that 30%-40% of sexually active females in college would test positive for HPV at any given time. Most women under the age of 30 with HPV have one of the benign types. These will usually disappear without treatment. In most college-aged students, testing for HPV only raises the cost of medical care without providing any useful information.

An HPV test checking for "high risk" HPV types is helpful in women under 30 whose Pap test reports "atypical squamous cells of undetermined significance," often abbreviated as "ASC-US" or "ASC." This test is offered through McKinley Health Center. An ASC-US result is in the "grey area." It means the pathologist is unsure if the patient has cervical dysplasia or simply inflammatory changes. With additional testing, some of these inconclusive Pap tests are found to be positive for high risk types of HPV. "High risk" implies a slightly higher risk to cause cervical dysplasia. A positive "high risk" HPV test can help your clinician determine if further evaluation is needed on an inconclusive (or ASC-US) Pap.

MY CLINICIAN TOLD ME I HAVE HPV ON MY PAP! WHAT HAPPENS NEXT?

If your pap is abnormal and you have a positive "high risk" HPV test, the next step is usually colposcopy. A colposcope is very similar to a microscope and allows doctors to examine the cervix with magnification. The doctor may apply vinegar solution that makes the abnormal cells easier to be seen. If abnormal cells are found, the physician may do a biopsy. A biopsy is the removal of a small sample of tissue from the abnormal area. Women may feel a sharp pinch for a few seconds, and possibly some menstrual-like cramps (some women don't feel anything).

I HAVE A POSITIVE HPV TEST! WHEN DID I GET IT?

HPV is very common, and most people who have it don't realize it. It usually is not possible to know when a person got HPV or who gave it to them. Although condoms offer some protection, they do not offer complete protection from HPV. HPV may be found soon after sex or not until many years later. For these reasons, you should not blame your partner if you have HPV.

WILL I ALWAYS HAVE HPV?

The body's immune system can fight off and get rid of the human papillomavirus, even the "high risk" types. Most students who acquire HPV in college have an effective immune response that clears the infection or reduces the viral load to undetectable levels in an average of 8–24 months. If one is infected with one of the "high risk" types and it stays around for more than one or two years, it may lead to cervical dysplasia and later even to cervical cancer. It is estimated that 50% of the women who receive cervical cancer diagnoses each year have never had cervical cytology screening (a Pap smear). Another 10% had not been screened within the five years before the diagnosis of cancer. If you know you are infected with HPV, it is important to get regular Pap smears to check for cervical changes.

WHAT DO I TELL MY PARTNER?

Couples in long-term, mutually monogamous relationships usually share the same HPV types. Repeated exposure through sexual intimacy does not appear to affect the body's ability to eliminate the virus. Once your immune system has rid itself of one HPV type, it usually will remember that type and not be susceptible to re-infection with the same type. Because there are so many types of HPV however, exposure to one type does not appear to confer immunity to the other types. If you recently entered a relationship, or if you're not sure both of you are mutually monogamous, condom use is important to decrease the risk of other sexually transmitted infections.

CAN A MALE BE TESTED FOR HPV?

As with females, most males who have HPV don't know they have it. The HPV types that cause visible warts are usually not the same types that cause dysplasia or cancer. There are no reliable tests for HPV in males without warts. For those with warts, HPV typing is not recommended since it would rarely be helpful. **There is no blood test available to diagnose a person for HPV.**

Most men with "high risk" HPV types will not have any health risks such as cancer or dysplasia. It is the female's cervix that needs to be monitored.

CAN HPV INFECTION BE TREATED?

There is currently no treatment available for the virus itself. However, good treatments do exist for the problems HPV can cause, such as cervical cell changes or genital warts. Your healthcare provider will discuss these treatment options with you, if you need them.

HOW CAN I REDUCE THE RISK OF GETTING HPV?

Anyone who is sexually active can come across this common virus. Ways to reduce the risk are:

- Not having any type of sexual contact.
- Having sex only with one partner who has sex only with you. People who have many sex partners are at higher risk of getting other STD's.
- Don't smoke. Smoking has been shown to increase the chance that cell abnormalities might progress to more severe changes. Be sure to keep your follow-up doctor appointments.
- Condoms (rubbers) used the right way from start to finish each time of having sex helps provide some protection – but only for the skin that is covered by the condom. Condoms do not cover all genital skin, so they don't give 100% protection.

IS IT NORMAL TO FEEL UPSET ABOUT HPV?

Yes, it is normal. Some people feel very upset. They feel ashamed, fearful, confused, less attractive or less interested in sex. They feel angry at their sex partner(s), even though it is usually not possible to know exactly when or from whom the virus was spread.

Some people are afraid that they will get cancer, or that they will never be able to find a sexual partner again. It is normal to have all, some or none of these feelings. It may take some time, but it is important to know that it is still possible to have a normal, healthy life, even with HPV. A sexuality educator is available at McKinley to counsel students about HPV. To make an appointment, call 333-2714.

It is important to remember that almost all of us are exposed to HPV at some time during our lives. It usually goes away without treatment. With regular checkups, you should be able to prevent any serious consequences of HPV infection.

References

Ho G, Bierman R, Beardsley R, et al: Natural History of Cervicovaginal Papillomavirus Infection in Young Women. *New England Journal of Medicine* 338(7): 423-428, 1998.

American Society of Reproductive Health Professionals: AARHP Quick Reference Guide to Patient Questions about HPV. Web site at: <http://www.arhp.org>

American Society of Reproductive Health Professionals: What Women Should Know about HPV and cervical health. Web site at: <http://www.arhp.org>

American Social Health Association. HPV: Get the Facts. HPV and Abnormal Cell Changes. Web site at: <http://www.ashastd.org>

American Society for Colposcopy and Cervical Pathology. HPV Testing – Is It for Me? Web site at: http://www.asccp.org/patient_edu.shtml

If you are a registered University of Illinois student and you have questions or concerns, or need to make an appointment, please call: **Dial-A-Nurse at 333-2700**

If you are concerned about any difference in your treatment plan and the information in this handout, you are advised to contact your health care provider.

Visit the McKinley Health Center Web site at: <http://www.mckinley.uiuc.edu>