What Everyone Should Know About Human Papillomavirus (HPV): **Questions and Answers**

What is HPV?

There are over 100 types of human papillomavirus (HPV). HPV is a virus that can infect many parts of the body. Some types of HPV are sexually transmitted and can cause anogenital warts in both men and women. The types of HPV that infect the ano-genital area are not the same as the ones that infect other areas such as the fingers, hands and face. Other types, not related to ano-genital warts, can very rarely cause cervical cancer in women and anal or penile cancer in men.

Some types of HPV are referred to as "low-risk" viruses because they rarely develop into cancer. HPV types that are more likely to lead to the development of cancer are referred to as "high-risk." It is important to note however that most women with high-risk HPV will not develop cervical cancer.

What are the signs and symptoms of an HPV infection?

Most people who have an ano-genital HPV infection do not know they are infected. Most HPV infections occur without any symptoms and go away without treatment over the course of a few years. However, in some people HPV infections can persist for many years.

Does HPV cause ano-genital warts?

Some HPV infections, with low risk types, can cause ano-genital warts. Ano-genital warts are usually flesh-coloured, soft to the touch and may appear as tiny flat bumps, or bumps that look like cauliflowers. They are usually painless but may itch. They usually grow in more than one location and may cluster in large groups. Sometimes ano-genital warts can be present but may not be visible if they are internal (i.e. inside the vagina or rectum) or if they are on the skin but are too small to be seen. Ano-genital warts do not turn into cancer.

What is the link between HPV infection and cervical cancer?

Persistent HPV infection, with high risk types, is the major cause of cervical cancer. It is estimated that over 99% of cervical cancers are caused by HPV. HPV may also play a role in cancers of the anus, penis, oropharynx (in the throat, at the back of the mouth) and other areas of the female ano-genital tract such as the vulva or vagina. Researchers are working to more clearly define the link between HPV and cancers at sites other than the cervix.

For 2006, the estimated number of new cases of cervical cancer in Canada is 1350. Approximately 400 women are expected to die from the disease.

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If you are sexually active, you should have regular check-ups. If you think you have warts or have been exposed to HPV, you should speak with a health care professional

How does someone get HPV?

HPV is estimated to be the most common sexually transmitted infection (STI) in Canada and around the world. Any person who is sexually active can get the virus. Studies estimate that as many as 75% of sexually active men and women may acquire ano-genital HPV infection, mostly "low-risk" types, at some point in their lives. Most HPV infections occur without any symptoms and go away without treatment over the course of a few years.

The types of HPV that cause ano-genital warts are spread by skin-to-skin contact, usually during vaginal, anal, or possibly oral sex with someone who has this infection. It is possible, however, to become infected with the virus without having sex if you come into contact with an infected area in the ano-genital region. HPV is more likely to be transmitted when warts are present, but the virus can be transmitted even when there are no visible symptoms.

It is possible to have more than one type of HPV infection at a time.

Does an HPV infection mean that someone has cheated in a relationship?

Most people who are infected with ano-genital HPV never know it. A recent diagnosis of HPV, ano-genital warts or related cancer does not necessarily mean that a partner has been unfaithful. Infection with HPV may have occurred years ago and the virus can remain in the body for weeks, years, or even a lifetime, without any sign of an infection. This makes it hard to know exactly when or from whom someone got the virus. There is no way to find out how long a particular infection has been there, or to trace it back to a particular partner.

Is there a test for HPV, cervical cancer or ano-genital warts?

There are DNA (genetic information) tests available which can be of benefit in detecting an HPV infection in certain situations. In Canada, HPV DNA tests have been approved for use in women, but access and availability is limited. HPV DNA testing is not part of a regular check-up, pelvic exam, screening tests for sexually transmitted infections or a Pap (Papanicolaou) test.

The Pap test is used to detect abnormal cells in the cervix and regular Pap tests can find abnormalities or changes in the cervix before cancer develops. It is recommended that females have a Pap test at age 18 as part of their routine health examination, or as soon as they become sexually active. A second test should be taken after one year, especially if

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you begin screening after age 20. If your first two tests show no abnormality, you should be re-screened every three years to age 69. However, you do not need to be re-screened if you have never had sexual intercourse or if you have had a total hysterectomy and your previous tests were normal. For more information, see the "It's Your Health" Fact Sheet on screening for cervical cancer [http://www.hc-sc.gc.ca/ivh-vsv/diseasesmaladies/cervical-uterus_e.html].

There are currently no HPV DNA tests available for men. For more information, see the Human Papillomavirus (HPV) and Men fact sheet.

Ano-genital warts are diagnosed by a physical exam, by a health care professional. There is no reliable test available for men or women that can detect ano-genital warts. You may have ano-genital warts even though you cannot see them. They may be small, or in a place where they are not visible, such as inside the vagina or rectum. It is important to have regular check-ups with a health care professional.

Do I need to have a Pap test if I am currently not sexually active, or I am in a monogamous relationship?

Women who are not currently sexually active or who are beyond reproductive age may believe that they do not need regular Pap tests, but this is not true. Continued and regular Pap tests are important because HPV can be active years after an infection has occurred. For the same reason, women who are in a monogamous relationship who may feel that their risk for HPV is low should also have regular Pap tests. Speak with a health care professional to see what is recommended for you.

What happens if you have an abnormal Pap test result?

For women, if the Pap test shows abnormal cells, the health care professional will determine what needs to be done according to the type of changes that have occurred in the cells. The health care professional may simply monitor you for further changes or request further investigations. These may include a repeat Pap test, HPV DNA testing (when indicated, where available and where included in provincial or territorial recommendations) or a referral to a colposcopist, who will examine the cells of your cervix using specialized equipment. Small biopsies of tissue from the cervix may be taken to determine the extent of the cell abnormality. Additional treatments such as cryotherapy, electrosurgery or laser surgery may be necessary to remove the abnormal cells. The management decision will depend on many factors, including the degree of abnormality on the Pap test.

Can HPV be treated?

Although there is no cure for HPV infection, the warts, lesions and precancerous or cancerous changes caused by the virus can be managed and/or treated.

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No treatment guarantees a cure for HPV infection. Some treatments for ano-genital warts, such as cryotherapy (removing the warts by freezing them), are done in a clinic or doctor's office while other treatments, such as prescription creams, can be used at home. Repeat treatments are often necessary. Just because you can no longer see the wart does not mean the HPV infection is gone - the virus may still be present which means you could develop warts again without being re-exposed to the virus. For most people, warts will clear on their own over time.

The lesions and precancerous changes caused by high risk types of HPV can be treated if necessary. Most of these infections will clear without any treatment. Only a very small number of high risk infections will progress to cancer. As with many other cancers early detection is one of the key factors to successful treatment.

Discuss treatment options with a health care professional to determine which treatment choice may be best for you. Immunocompromised people, especially those who are HIVpositive, may require special care.

How can you protect yourself from getting HPV?

To reduce the risk of acquiring an HPV infection always use a condom during sex. While condoms don't eliminate the risk of infection, using a condom, consistently and properly, during vaginal, anal and oral sex will decrease the chance that you will get HPV or pass it on to your partner. A condom will only protect the area it covers so it may be possible to become infected by any uncovered warts (for example, on the scrotum).

Using a condom will also help to protect you from other sexually transmitted infections and reduce the chances of unintended pregnancies.

Other ways to reduce your risk of infection are to delay sexual activity (waiting until you are older), to limit your number of sex partners and to consider your partners sexual history if they have had multiple previous partners.

For females, four of the common types of HPV can be prevented through vaccination. This is important given that there is no treatment available which can cure an HPV infection. HPV vaccines have been in development for many years and one of the vaccines has recently been approved for use in Canada (July 11, 2006). The vaccine was licensed in the United States (US) on June 8, 2006. This vaccine protects from infection with 4 of the most common types of HPV (Types 6, 11, 16 and 18). HPV vaccines are currently being studied for use in men. For more detail on the HPV vaccine see the Human Papillomavirus (HPV) Prevention and HPV Vaccine fact sheet.

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Can cervical cancer be prevented?

Cervical cancer can be prevented through screening, which detects abnormal cells and precancerous changes, before they progress to cancer. Women are screened for cervical cancer and precancerous changes when they have a regular Pap (Papanicolaou) test by a health care professional. Cervical cancer is found more often in women who have not had regular Pap tests.

What about pregnancy and ano-genital warts?

HPV does not interfere with a woman's ability to get pregnant. Most pregnant women who have had ano-genital warts previously, but no longer do, would be unlikely to have any complications or problems during pregnancy or birth. However, if ano-genital warts are present, they can increase in size and number during pregnancy.

Rarely, a pregnant woman can pass HPV to her baby during vaginal delivery. Cesarean section is not recommended unless the warts obstruct the birth canal.

Is it normal to feel upset about being diagnosed with an HPV infection?

Yes, it is normal to feel ashamed or upset about having a sexually transmitted infection. People should not be judged negatively because they have an STI. It is important to realize that even with an HPV infection it is still possible to lead a healthy balanced life, including a fulfilling sex life. Also, considering the link between HPV and cancer it is important to remember that if you have an HPV infection, it is unlikely that you will develop cancer.

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