



Your Health and HPV:
The Facts Every Woman Should Know
(HPV - Human Papillomavirus)



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(HPV - Human Papillomavirus)**

Compiled by: Lisungu Chieza, Clinical Research Coordinator
Cover Design and Photography by: Frantz Brent Harris
Graphic Design by: Frantz Brent Harris
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Women's Health in Women's Hands Community Health Centre
2 Carlton Street, Suite 500
Toronto, ON, M5B 1J3
Tel: (416) 593-7655
TTY: (416) 593-5867
Fax: (416) 593-5867
E-mail: info@whiwh.com
Website: www.whiwh.com



WOMEN'S HEALTH
IN WOMEN'S HANDS
COMMUNITY HEALTH CENTRE
INCREASE • INNOVATE • IGNITE

Our Mandate:

Women's Health in Women's Hands Community Health Centre (WHIWH) is a community health centre that provides primary health care to Black women and Women of Colour from the Caribbean African, Latin America and South Asian communities in Metropolitan Toronto and surrounding municipalities. We are committed to working from an inclusive feminist, pro-choice, anti-racist, anti-oppression, and multilingual participatory framework in addressing the issue of access to health care for our mandated priority populations encompassing gender, race, violence, sexual orientation, religion, culture, language, disability, immigration status and socio-economic circumstances.



Women's Health in Women's Hands Community Health Centre

recognizes that people seek medical information on a variety of topics for a variety of reasons. To help provide additional clinical information, we have created this HPV booklet as a public service. In providing this service, however, Women's Health in Women's Hands does not recommend that this booklet be used in place of the advice and counseling of health professionals. Your health is important. Please take the time to discuss HPV with your health care provider.

For further information visit the following websites:

Public Health Canada's AIDS:

<http://www.phac-aspc.gc.ca/std-mts/hpv-vph/fact-faits-eng.php>

Cancer Care Ontario: 416-971-9800

<http://www.cancercare.on.ca/pcs/screening/cervscreening/>

Sexual Health Info line at 416-392-2437 or 1-800-668-2437 <http://www.toronto.ca/health/cdc/clinics/index.htm>



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Glossary of Terms

HPV: Human Papilloma Virus

STI: Sexually Transmitted Infection-any infection that may be spread by sexual contact

Contagious: ability to pass along an infection

Anogenital: the area on and around the genitals and anus

Papillomatosis: a general term for any HPV infection

Pap (Papanicolaou) test: a test for cancer of the cervix consisting of the staining of cells taken in a cervical or vaginal smear.

HPV DNA test: a test to detect HPV viral DNA

Persistent HPV infection: usually refers to HPV infection that lasts longer than 12 months

Transient infection: refers to HPV infection that lasts under 12 months i.e. clears your body within 12 months

Warts: may be raised bumps (papules) or flat bumps under the skin's surface that may not be visible.

Lesion: abnormal cell growth at the site of HPV infection that may be precancerous. Lesions usually develop internally in the cervix, vagina or vulva.

Carcinogenesis: the processes that lead to cancer.



Cervical Cancer: the result of persistent HPV infection of the cervix when precancerous lesions are untreated.

LSIL: Low grade Squamous Intraepithelial Lesions, usually harmless lesions (detected by the Pap Test) that spontaneously clear within 1 year but in a minority may progress to cervical cancer.

HSIL: High grade Squamous Intraepithelial Lesions or high-grade cervical dysplasia. precancerous lesions (detected by the Pap test) that progress to cancer if left untreated.

CIN: Cervical Intraepithelial Neoplasia, the old classification system for ranking the severity of cervical lesions. CIN1=low-grade/LSIL, CIN2/3=high-grade/HSIL.

LEEP: Loop Electro-surgical Excision Procedure, treatment to remove HSIL, high-grade cervical dysplasia.

HPV Vaccine: prevents infection by select high risk and low risk HPV types, if taken before ever having an infection with the HPV types found in the vaccine.

Type distribution: The number and proportion of HPV types found in a specific population or geographical region.

What is HPV?

The Human Papillomavirus (HPV) is the most common sexually transmitted virus, causing the highest number of sexually transmitted infections (STIs). HPV is transmitted through skin to skin contact and sexual contact (via vaginal, anal or oral routes).

It is estimated that 8 out of 10 women will get some form of HPV in their lifetime but may have no visible signs or symptoms. In fact, most people with HPV infection will have no symptoms at all.

HPV infection is most common in sexually active young women (15-26 yrs). Recently, increasing rates of HPV have been observed in older women. This is most likely related to increased divorce rates and sexual activity with new partners at an older age.

Stats

HPV is the cause of cervical cancer. Approximately 1 in 4 women will get the types of HPV that are related to cervical cancer. Of these women, 1 in 1,000 will get cervical cancer. HPV infects cells inside and outside of the body. These include surfaces of the skin, lining of the mouth, tongue, throat, tonsils, vagina, cervix and anus. The prevalence of HPV infection varies with the population group. The type of HPV may also differ with geographical location.

Types of HPV

There are over 200 different types of HPV which cause varying degrees of health risks. Over 40 of these types are anogenital, ie. transmitted sexually and affecting the area on or between the genitals and the anus.

Anogenital HPV types include:

“Low risk ” : 13 types HPV type (types 6 and 11 are the most common and associated with 90% of genital warts). They are referred as “low risk” because they rarely cause cancer but can lead to genital warts.

“High risk”: 18 types HPV types are carcinogenic (types 16 and 18 cause 50-70% of cervical cancers in North America). These types cause pre-cancerous lesions, cancers of the cervix, vagina and vulva.

Types of HPV Infection and Their Presentation.

Skin warts

The most obvious symptoms of HPV are skin warts (common, plantar, or flat). These develop on areas of the skin, such as hands, arms, legs and the bottom of feet. HPV infections of this type are very common and harmless. They are non-cancerous and can easily be treated.



Genital Warts

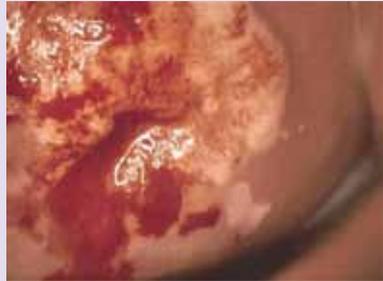


Genital warts are very contagious and are spread during oral, vaginal or anal sex with an infected partner. About 66% of people who have sexual

contact with someone who is infected with genital warts will develop warts themselves, usually about three months after the encounter. People do not get genital warts through contact with the warts found on hands or on feet. In women, genital warts can appear as growths or bumps on the vulva, urethra, cervix, anus or thighs. Warts may appear as bumpy papules or flat/macular warts.

Pre- cancerous Lesions

HPV can infect cells on the vagina and cervix where we cannot see them. These lesions (medically known as dysplasia or abnormal cells of the cervix) are considered to be a precancerous condition. There are three types of cervical dysplasia: mild, moderate and severe. Left untreated dysplasia may lead to cervical cancer.



How do I get HPV?

HPV infections can affect sexually active women and men regardless of age, race, social class and sexual orientation. The virus can affect anyone who has ever had a sexual encounter even without penetration. The majority of sexually active women are exposed to HPV during their life time, but most cases are cleared naturally and are never diagnosed.

Genital HPV is mainly transmitted via sexual contact

Types of contact include:

- Genital skin-to-skin contact with the penis, scrotum, vagina, vulva, or anus of an infected person.
- Kissing or touching an infected partner's genitals with the mouth.
- Sexual intercourse with an infected partner via the vaginal and anal routes.
- Although rare, transmission during pregnancy can also occur. Infants born to women with genital warts during pregnancy may develop HPV infection of the throat (laryngeal papillomatosis).
- You will not get HPV from sharing the toilet or utensils with an infected person.

What makes me more likely to get HPV?

- Sexual contact with a person infected with HPV.
- Higher number of lifetime sexual partners.
- Your partner's sexual history (higher number of partners).
- Some studies suggest an increased rate of infection is linked to smoking and the use of oral contraceptives. However, this link is not well established.

Does anything make me less likely to get HPV?

- If your male partner has had his penis circumcised, your chances of getting HPV may be reduced.

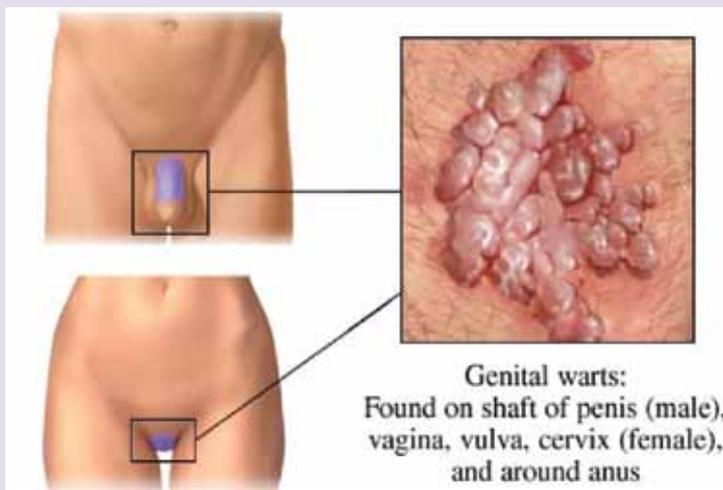
What are the signs that I might have an HPV infection?

Signs of genital warts

Though usually painless, symptoms of HPV include genital warts that cause an itching or a burning sensation as well as mild bleeding resulting from sexual intercourse or a bowel movement.

Warts can be very small and very hard to see, even during a medical exam. Sometimes it may be hard to tell the difference between a wart and bumps or pimples.

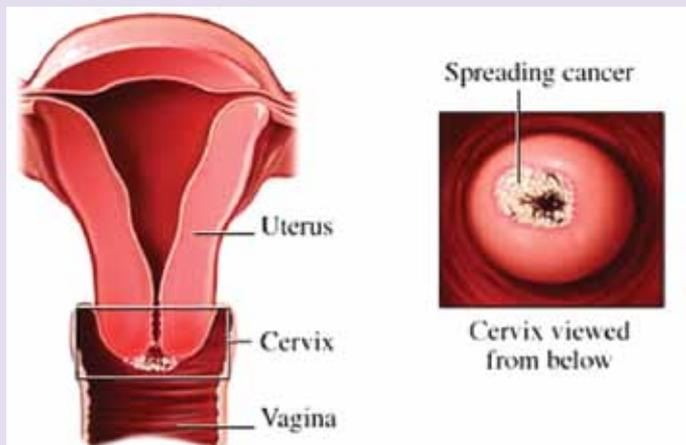
If you think you have warts or have been exposed to HPV, go to a health care provider or clinic. A health care provider will examine you more closely and may use a magnifying lens to find small warts.



How can I tell if I have pre-cancerous cervical lesions?

Signs of precancerous lesions

Cervical dysplasia rarely causes any symptoms and is only detected through a Pap test. A Pap test is also referred to as Pap smear. To learn more about Pap testing, please refer to page 24.



A Pap test is used to find abnormal cell changes in the cervix before they turn to cancer (precancerous changes). Precancerous cervical changes are caused by HPV.

Women with abnormal Pap results should either be followed up closely with regular screening or examined for further cervical problems.

The health care provider uses a special microscope to clearly inspect the cervix. This procedure is called colposcopy.

Another test used to check for the HPV virus is the HPV DNA test. It may be used as a follow-up when Pap test results are unclear. In the future, this test may become the routine primary screening test for HPV infection. Ask your health care provider if you have any further questions

How soon can HPV infection be detected?

Most people will have at least one HPV infection in their lifetime, but will never know it and will have no problems as the infection will clear on its own. However, for more serious types of HPV infections the natural course taken by an HPV infection varies over time and from person to person.

Genital warts can develop quickly inside or outside the vagina, usually within three months of contact.

Within one year of initial HPV infection, low-grade cervical dysplasia may develop. This type of lesion usually clears spontaneously within a year.



In some women the HPV infection persists and can lead to the first stages of cancer. This transformation is generally slow and can take anywhere from five to 20 years.

How is HPV treated?

Unlike bacteria, viruses cannot be destroyed with antibiotics. There is currently no medical cure to eliminate an HPV infection. Treatment depends on the type and the extent of HPV infection. In the case of cervical cancer, the stage of development will determine the course of treatment.

What are my treatment options?

When choosing treatment your health care provider will consider:

- Size, location, number of warts and changes in warts.
- Patient preference, cost of treatment and drug side effects.

How are genital warts treated?

There are several treatments for genital warts. The goal of any treatment is to get rid of symptoms by removing visible genital warts. No one treatment is best for all cases.

Even though visible genital warts can be eliminated through treatment, HPV infection is still present. This means that symptoms such as genital warts may reappear.

Removal methods for genital warts

Chemical Removal: Two powerful chemicals (podophylin and trichloroacetic acid) are used to destroy external genital warts through direct application. Chemical treatment are generally available with a prescription. These methods can be painful and may cause scarring. Chemical treatment methods may also require several applications to be effective.

Cryotherapy: Genital warts are removed by freezing and killing damaged cells with liquid nitrogen.

Electrosurgery: An electric current is passed through abnormal cells, killing the tissue affected by genital warts. The result is the removal of visible warts.

Laser therapy: Visible warts are removed using a laser that heats and vaporizes abnormal cells.

How can pre-cancerous lesions be treated?

Most cases of mild cervical cell changes are not dangerous and clear up on their own. Many health care providers opt to take care of women with mild precancerous lesions using the “watch and wait approach”, choosing frequent follow-up exams over immediate treatment. When treatment is needed, there are a number of options to choose from.

Treatment options for precancerous lesions:

- **Cryosurgery:** precancerous lesions are frozen to kill abnormal tissue.
- **Laser Therapy:** A powerful beam of light is used to cut and remove or destroy damaged tissue.
- **LEEP:** This term stands for loop electrosurgical excision procedure (LEEP). A thin electrically charged wire is used to cut abnormal cells, removing precancerous lesions.
- **Cone biopsy:** Long cone-shaped pieces of abnormal tissue are removed using a surgical knife.

How is cervical cancer treated?

When found in the early stages of development, cervical cancer can usually be treated successfully. However, as cancer progresses, it can spread to other parts of the body, including the reproductive system. In these cases, more extreme measures are required for treatment. Many side effects are associated with these procedures. In most cases, your reproductive health can be seriously impacted.

Treatment options for cervical cancer:

Laser Electro-Surgical Excision Procedure: Cancerous tissue is removed using a hot wire loop.

Cryotherapy: Abnormal tissue is frozen to kill and remove cancerous cells.

Radical hysterectomy: If the cancer invades the deeper layers of the cervix and spreads to the uterus, more extreme measures are required. Treatment might involve a radical hysterectomy with lymph node removal.

Chemotherapy: If the cancer spreads beyond the pelvis it is often incurable. Survival rates at that point are one in five. Chemotherapy and radiation therapy are often used to extend lifespan.

Please discuss your options very carefully with your physician.

Genital Warts and Pregnancy

A pregnant woman should notify her health care provider or clinic if she or her partner(s) has had HPV or genital warts. Genital warts can cause problems in pregnancy as the warts can sometimes get larger and make it difficult to urinate.



In some instances, genital warts can make the vagina less elastic and cause an obstruction during delivery. In very rare cases, infants born to women with genital warts develop warts in their throats and genital areas.

Keep in mind, however, that most women with genital warts deliver a healthy baby through natural delivery. In many cases, a C-section is recommended if the mother has HPV.

Can HPV infection be cured?

There is no cure for HPV. However, there are a number of treatments that can eliminate symptoms and help you to live a healthy life. Even after treatment, the virus can remain within the tissue cells of the body. A person's immune system helps to suppress the re-appearance of the virus, warts and lesions. Although symptoms may return following treatment, the likelihood that the genital warts will reappear is reduced once warts remain clear for several months.

How can I protect myself against HPV infection?

Since most people who have HPV do not have any external signs or symptoms, it is also likely that they will unknowingly spread the disease. Warts may not be noticed because they are too small, while lesions may develop internally in women.

Total prevention is not easy but you can do the following:

Abstinence of sexual contact, even skin to skin sexual activity without penetration, is the only way to avoid contracting HPV.

Lifelong monogamy is another effective way to avoid getting HPV. Limiting the number of sexual partners you have will reduce your chance of getting HPV.

Latex condoms may provide some protection, when used the right way each time you have sex. As condoms do not cover all the skin surfaces around the genitals and the anus, their use cannot guarantee complete protection against HPV. However, condom use greatly lowers your risk of getting an HPV infection as well as protecting against most other STIs.

Regular Pap testing is the only way to detect abnormal cells in the cervix that might lead to cervical cancer. Women should have yearly Pap tests, once they become sexually active or by 18 if they have not been sexually active before then. Even women who are not sexually active or who have sex with women need to go for yearly Pap tests.

Vaccines have been created to prevent women from contracting some forms of HPV and could dramatically help reduce the incidence of HPV related complications.

What is the HPV vaccine?

Currently one HPV vaccine is licensed for use in Canada (others are in development), and it is approved for use with females ages 9-26.

The vaccine is called Gardasil™ and is produced by Merck Frosst Pharmaceutical.

- The vaccine provides protection against 4 different HPV types: Type 6, 11, 16, 18.
- Types 6 & 11: “Low risk” types cause 90% of genital warts.
- Types 16 & 18: “High risk” types cause the majority (50-70%) of cervical cancer in North America.
- In Ontario, as part of the school-based vaccine program the Gardasil vaccine is currently being given free of charge to Grade 8 girls with parental consent.
- Gardasil™ is given as three separate 0.5 mL doses as an intramuscular injection in your arm or thigh. The vaccine is given on a three dose schedule, i.e. Injections are given at 1, 2 and 6 months.

How does the HPV vaccine work?

The vaccine is **100% effective** at blocking infection with HPV types 16 and 18 (“High risk”) and also **100% effective** against infection by Types 6 and 11 (“Low risk”).

However:

- The vaccine is only effective when given to women who have NOT been previously infected with HPV types 6, 11, 16 or 18.
- The vaccine has NO therapeutic effects. In other words, the vaccine cannot help clear an existing infection or reverse cervical cancer.
- The vaccine does not protect against all types of HPV. It is important for women who receive the vaccine to continue protecting themselves and taking preventative measures like the annual Pap test and, when appropriate, HPV testing.
- If the Gardasil™ vaccine schedule is interrupted, the vaccine series does not need to be restarted. If the series is interrupted after the first dose, the second dose should be given as soon as possible, and the second and third doses should be separated by an interval of at least 12 weeks. If only the third dose is delayed, it should be administered as soon as possible.

Talk with your health care provider if you have questions about current recommendations regarding who should receive HPV vaccine

What is the recommended use of the HPV Vaccine?

Gardasil™ is recommended for **females between 9 and 13 years of age**. As this is before the onset of sexual intercourse for most females in Canada, and the efficacy would be greatest.

Females between the ages of 14 and 26 years may benefit from Gardasil™, even if they are already sexually active, as they may not yet have HPV infection and are very unlikely to have been infected with all four HPV types in the vaccine. It is therefore recommended that females in this age group receive the vaccine.

Females between the ages of 14 and 26 years who have had previous Pap abnormalities, including cervical cancer, or have had genital warts or known HPV infection may still benefit from Gardasil™. These women may not have had infection with the HPV types included in the vaccine and are very unlikely to have been infected with all four HPV types contained therein. It is therefore recommended that these women receive the vaccine.

Women who are already sexually active may be infected with an HPV type contained in the vaccine, and there is no readily available screening method to determine this. These women need to be aware of the possibility that they are already infected.

Women older than 26 years: Studies of Gardasil™ vaccine use in women older than 26 years are ongoing. No recommendations can be made for the use of the vaccine in this age group at this time, although its use can be considered in individual circumstances.

Women younger than 9 years of age: Vaccine efficacy is not known for females younger than 9 years of age nor is the duration of protection from this vaccine. The vaccine is not recommended for this age group.

Men: The efficacy of Gardasil™ vaccine in males is as yet unknown. Hence the vaccine cannot be recommended for males at this time.

Persons with weakened immune systems. Gardasil™ may be administered to persons with weakened immune system. However, further research is being done.

Duration of Vaccine Protection

The data from clinical trials indicate the vaccine provides complete protection against HPV infection for at least 6 years. Studies are ongoing to determine whether protection is lifelong.



How safe is the HPV Vaccine?

Gardasil is safe and well tolerated. The majority of reported symptoms included pain, redness or swelling at the injection sites. Most of these symptoms were mild to moderate in intensity. Other symptoms included headache, fainting or fatigue .

Can the HPV vaccine be taken with other vaccines?

The Gardasil™ vaccine can be taken at the same time as the hepatitis B vaccine without decreasing the effect of either vaccine. Studies with other child hood vaccines such as meningococcal vaccine, tetanus, diphtheria and pertussis vaccines (DPT) are under way.

What are some precautions when taking the HPV vaccine?

Gardasil™ is not recommended for persons with any allergies to yeast. Gardasil™ vaccine is NOT recommended for use in pregnancy. If you received the vaccine when you did not know that you were pregnant please notify your health care provider. Most likely there will be no effect on the fetus.

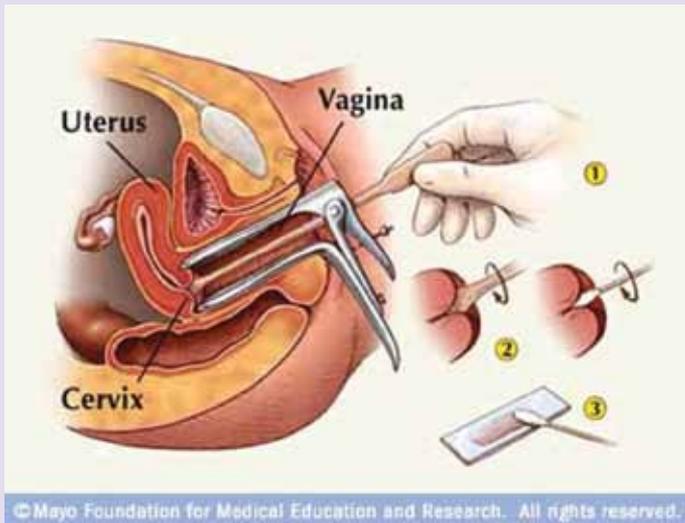
Cervical cancer screening in women who have received the HPV vaccine:

While Gardasil™ has been shown to protect against cancer caused by **HPV-16 and 18**, these two types of **HPV are only responsible for about 50-70% of cervical cancer** cases in North America. Women who have been vaccinated may still get infected by other HPV types.

In other parts of the world cervical cancer is caused by other types of HPV that the vaccine does not prevent. Women who were already sexually active before receiving the vaccine may already have been infected with HPV, and therefore these women should continue to take part in routine cervical cancer screening programs (e.g. Pap test).

What is a Pap test?

The Pap test looks for abnormal changes in the cervix. It helps find early changes before they develop into cancer of the cervix. The cervix is the entrance to the uterus, which sits at the top of the vagina. The health care provider uses a swab or a small brush to get a sample of cells from the



cervix. The sample is then sent to the laboratory for testing. If some cells look different from normal cells, it is called an “abnormal Pap test”.

The Pap is test performed every year as part of your annual physical examination. A Pap test is often part of the pelvic examination.

Who should have a Pap test?

Women should have routine Pap tests beginning a year after they become sexually active (oral or vaginal sex) or around the age of 18 even if they are not sexually active. All women should have Pap tests, including lesbian and queer women, even women who are not sexually active.

It is currently recommended to have a Pap test each year. HIV positive women should have a Pap test every 6 months (or more often) as advised by a health care provider.

Women with any previous sex history, including those who have had hysterectomy.

How do I prepare for a Pap Test?

Call your health care provide to schedule an appointment about one or two weeks after you expect your period. If your period starts, call and re-schedule.

Do not use vaginal douches for at least 3 days prior to your appointment.



Try and refrain from sexual intercourse for 48 hours before your appointment.

Do not use tampons, birth control foams or jellies for 48 hours before your appointment

Do not take tub baths with oils and foams. Instead try and take showers 48 hours before your appointment.

Write down any problems you are having, or any questions that you have for your health care provider, and bring it to your appointment. Also if you have had previous abnormal Pap test results, be sure to let your health care provider know.

What happens during a Pap test?

A physician or nurse practitioner will perform the test. She/He should explain each action to you as she/he does it.

You will be asked to undress and lay down on an examination table. If you ask to have the top part of the exam table raised up, you can then see the physician or nurse as she/he is doing the test.

The physician will put on a pair of gloves and then carefully insert an instrument called a speculum into your vagina. The speculum should be

warmed to minimize discomfort.

The speculum is gently opened to see the cervix. Sometimes a separate test for HPV is also done at this time. For this test a swab of the cervix is taken and tested directly for the presence of HPV. If you have a male physician, there will always be a female attendant in the room during the Pap examination.

What questions may the doctor ask me?

- The date of the beginning of your your last period
- If you are or think that you may be pregnant
- If you have noticed any unusual vaginal discharge
- If you are experiencing any pain or other symptoms.

What happens after you have the test?

The laboratory will return the written test results to your health care provider in approximately three weeks or less.

Most results are normal, but about one in ten Pap tests finds abnormal cells. If this is the case your health care provider will contact you to discuss the results.

If your results are normal you will not be contacted but you may request to discuss your results with your physician.



What stigmas and emotions are associated with HPV?

Is it normal to feel emotional about having HPV or genital warts?

It is normal for women who have been diagnosed with HPV or received abnormal Pap test results to experience psychological consequences.

The presence of warts may be embarrassing during intimacy or physical examination. This could lead to depression, shame or guilt, fear of rejection, loss of sexuality and enjoyment of sex and changes in body image.

Women should not be judged negatively because they have an HPV infection. HPV does not reflect a woman's values or personal character. It is also important to recognize that in most cases HPV will not progress to cervical cancer. With early detection and treatment, it is possible for women who have HPV to live a healthy, balanced and productive life.

Should I inform my sexual partner(s) about my HPV infection?

If you think you have genital warts or an HPV infection, please tell your sexual partner to ensure he/she is tested. This is the first step to treatment and slowing the progression of HPV. Informing your partner(s) about your HPV status also means that they can protect others against the spread of HPV.

For more information and support, contact the Sexual Health Info line at:

416-392-2437 or 1-800-668-2437

<http://www.toronto.ca/health/cdc/clinics/index.htm>



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