



## What is Human Papillomavirus (HPV)?

HPV is the most common sexually transmitted infection in Canada. In the absence of vaccination, it is estimated that 75 per cent of sexually active Canadians will have a HPV infection at some time.

There are over 100 different strains of the human papillomavirus. Certain types of HPV infection can lead to cervical abnormalities, cervical cancer and other cancers like cancers of the anus, vagina, vulva, penis and oral cavity. Other types of HPV can cause genital warts and Types 31, 33, 45, 52 and 58 cause about 15 per cent of cervical cancers.

## How is it spread and what are the symptoms of HPV?

HPV is commonly spread during sexual activity by skin-to-skin contact with an infected person.

Most people never develop symptoms and do not know that they have been infected with HPV. They can still, however, carry the virus and infect others.

Many HPV infections are transient. That is, the body's immune system will get rid of the virus on its own. Persistent infection with HPV is the major cause of cervical cancer and is implicated in cancers of the penis, anus, vulva, vagina, mouth and oropharynx (upper throat). HPV can also cause non-cancerous lesions, such as genital warts.

In Ontario, each year, about 500 women are diagnosed with cervical cancer and about 150 women die from this disease.

Among cancers affecting men, it is estimated that HPV infection is associated with 80-90 per cent of anal cancers, 40-50 per cent penile, 35 per cent oropharyngeal and 25 per cent of oral cavity cancers.

The risk of persistent HPV infection and genital warts among men having sex with men (MSM) are about three times higher and the risk of anal cancer is approximately 20 times higher than heterosexual males.

## Who should get the HPV vaccine?

The HPV vaccine is approved for use in women aged 9-45 and men aged 9-26. It is most effective when given before sexual activity begins. Those who are already sexually active can still benefit from the vaccine because they may not have acquired an HPV infection yet, or likely have not been infected with all HPV types contained in the vaccine.

The provincial government is funding the vaccine at no cost to:

- All current Grade 7 students, born on or after 2005
- All female students who are in grades 8-12
- All male students born after 2004 who are in grades 8-12
- Men who are 9-26 years who identify as gay, bisexual as well as other MSM including some transgendered people.

## HPV vaccine

- **Gardasil (HPV4)** vaccine prevents infection against the four types of HPV (16,18,6 and 11).

Immunization with HPV 4 can prevent 70 per cent of cervical cancers, 90 per cent of genital warts, 92 per cent of anal cancers, 63 per cent of penile cancers, and 89 per cent of mouth and certain types of throat cancers.

All healthy individuals who receive their first dose of HPV vaccine before the age of 14 years are eligible to follow a two-dose HPV vaccine schedule.

Immunocompromised individuals, and those who receive their first dose after the age of 14 years should receive three doses of HPV vaccine. The vaccine is almost 100 per cent effective against the four HPV types that the vaccine protects against.

- **Gardasil (HPV9)** protects against nine strains of HPV (6,11,16,18,31,33,45,52,58). It is publicly funded for all students currently in grade 7 (born on or after 2005) until the end of their grade 12 year of high school.

The protection against the four strains in HPV 4 is the same, however, the five additional strains can prevent up to 14 per cent more of anogenital cancers and up to 30 per cent more of high risk precancerous cervical lesions.

Individuals who have already completed a series of Gardasil (HPV4) are not recommended to receive Gardasil 9 at this time.

For access to the vaccine outside of the publicly-funded program, you can contact your health care provider.

It is important to note that the HPV vaccine does not replace Pap tests. The HPV vaccine program is just one part of cancer prevention. Even if vaccinated, women still need regular Pap tests because the vaccine does not protect against all cancer-causing HPV types.

### Is the vaccine safe?

The HPV vaccine is safe and well tolerated.

Approval for use of the vaccine was based on many clinical trials and studies showing that it is safe. People who were subjects of the studies had very few side effects. The most common side effect is temporary soreness at the site of injection.

There is also no risk of getting an HPV infection from the vaccine. HPV vaccine does not contain any thimerosal or mercury.

### Further ways to reduce the risk of getting HPV infection

While condoms do not eliminate the risk of HPV infection (as the virus can be contracted through skin-to-skin contact beyond the covered area), using a condom properly and consistently during vaginal, anal and oral sex decreases your chances of getting HPV. It will also help protect you from other sexually transmitted infections. Other ways to reduce your risk of infection include delaying sexual activity (until you are older) and limiting your number of sexual partners.

Alternate formats of this document are available upon request.

**Region of Waterloo Public Health and Emergency Services**  
*Infectious Diseases, Dental and Sexual Health*

### Your record of protection

After any immunization, ensure your personal immunization record or “yellow card” is updated. Keep it in a safe place.

### Questions?

Talk to your health care provider or contact Public Health at 519-575-4400.

