

Human Papillomavirus (HPV) Vaccination Program for Grade 8 Females: Teachers Resource Package

The following are some questions and answers regarding the grade 8 HPV vaccination program to share with your students.

1. What is the Human Papillomavirus (HPV)?

HPV is a common virus that infects the skin and genital regions. There are over 100 strains of HPV. HPV infection is a common cause of genital warts and cervical cancer in Canada. Strains 16 and 18 cause 70% of cervical cancer and strains 6 and 11 cause 90% of genital warts. The virus can cause changes on a woman's cervix. These changes, also called dysplasia or pre-cancerous lesions, can be detected by a Pap test. If undetected and untreated, it can lead to cancer of the cervix.

2. How can someone become infected with HPV?

HPV is easy to transmit and is the most common sexually transmitted infection. It is spread from direct skin-to-skin contact during sexual activity. Most people with HPV infections will have no symptoms, thus it is easy to pass the virus to a sexual partner without knowing it. Approximately 75% of Canadians will become infected with at least one type of HPV during their lifetime.

3. Who can get infected with HPV?

Anyone can become infected with HPV. The HPV types that cause cervical cancer and genital warts are transmitted during sexual contact and are usually acquired only after a person becomes sexually active. Approximately 75% of all sexually active individuals will be infected with at least one type of HPV during their lifetime. Studies have shown that those more at risk for HPV infection include:

- i. Those sexually active who are less than 25 years of age
- ii. Those with multiple sexual partners in their lifetime
- iii. Early age at first sexual intercourse
- iv. Having sex with a male partner who has had or has many sexual partners

4. Is there any way to prevent HPV infections?

A new vaccine, Gardasil[®], has been introduced in Canada that prevents infection with four strains of HPV, types 6, 11, 16, 18. Almost all females who receive the vaccine are protected against infection with these four types. However, the vaccine will not clear up infections with these types that are already present nor will it prevent infection from other HPV types.

Using a condom protects against many sexually transmitted infections and can reduce the risk of getting HPV. Condoms prevent skin-to-skin contact during sex but since the condom does not cover all the skin surfaces that come into contact during sex, using a condom does not guarantee complete protection against HPV.



5. What happens when someone becomes infected with HPV?

Most people who get an HPV infection have no symptoms. The body's immune system usually gets rid of the virus on its own. In some people, the virus can lead to genital warts and/or cervical cancer. Genital warts can become painful, itchy or bleed. HPV infections that cause pre-cancerous lesions on the cervix usually have no symptoms either. This is why regular Pap tests are so essential to detect and treat changes early.

6. Can HPV infections be treated?

Yes. HPV infections of the cervix that cause precancerous lesions are usually detected by a Pap test. They can be treated by laser, liquid nitrogen or surgery. Similarly, genital warts can be treated using liquid nitrogen to freeze the warts and kill the infected skin, a laser, chemicals or surgery. For more information about treating genital warts, have your students speak to their health care provider.

7. What is the HPV vaccine and how does it protect?

The HPV vaccine, called Gardasil[®], is made up of tiny pieces of protein particles that are found on four strains of the HPV virus. The particles are made by yeast cells (similar to yeast that is used in baking) that have been altered. The particles are purified and made into the vaccine. The vaccine is given as an injection into the arm. This stimulates the immune system to produce antibodies to protect against infection. There is no Human Papillomavirus in the vaccine. Since only protein particles of the virus are in the vaccine, the vaccine cannot give someone an HPV infection.

8. I have heard a lot of controversy about the HPV vaccine Gardasil[®]. Is it still a safe vaccine?

The vaccine has been licensed and approved by Health Canada. It has been endorsed by the National Advisory Committee on Immunization. It is considered a safe and well tolerated vaccine. While it is a relatively new vaccine, it has been studied on thousands of females around the world. There is some question of how long the vaccine will provide protection and whether a booster shot will be required. Each parent can decide if the parent wants his/her child vaccinated against HPV.

9. What are the side effects from the vaccine?

The HPV vaccine is safe and well tolerated. Some people may get pain, swelling, itchiness and redness where the shot was given. Some may have a headache, fever, nausea and swelling of the throat and nose passages. Rarely, side effects include throat spasms, inflammation or infection of the gastrointestinal tract, swollen glands, high blood pressure, vaginal bleeding and reduced arm movement where the shot was given. Allergic reactions are rare but may include difficulty breathing, hives, and rash. See a health care provider immediately if a serious reaction occurs following vaccination. Toronto Public Health nurses are present at the school clinics. They are trained to handle severe reactions.

10. Why are only girls getting the vaccine and not the boys?

There are no studies that show that the vaccine is beneficial to boys. While males can get HPV infections of the genitals, cancers of these areas caused by HPV are rare in men. Cervical cancer is the most common serious disease caused by HPV and therefore the initial studies were done in females. Before a vaccine can be given to people there are always studies done looking at how effective it is, and these studies, while on-going, have not yet been completed in males.

11. Can students get this vaccine from their doctor if they don't want to get it at school?

The vaccine is only being offered free of charge at school clinics run by Toronto Public Health nurses. If there is a medical reason to defer vaccination to a student's health care provider, Toronto Public Health will make these arrangements. If a student prefers to go to their physician to get the vaccine, she will have to pay for it. The cost of the three shots is between \$400 to \$500.

12. Will a student be suspended if she does not get this vaccine?

No, students will not be suspended from school if they don't get the HPV vaccine. You should ensure that students take the information provided by the health department home to their parents. Like the Hepatitis B vaccination program, a consent form will need to be signed by the parents and returned to the school before a student can be given the HPV vaccine.

13. Why is this vaccine being given to grade 8 females only?

It is important to give the vaccine to females before sexual activity begins. For most Canadian teenagers, sexual activity begins after grade 8 so this is a good time to give the vaccine.

14. When did the HPV vaccine first come onto the market in Canada?

The first HPV vaccine, Gardasil[®] was approved by Health Canada for use in Canada in June 2006. Gardasil[®] is licensed for use in other countries including the U.S., Australia, New Zealand, Mexico, Brazil, the whole of the European Union and others. Another vaccine that protects against HPV 16 and 18 called Cervarix is also going through the Health Canada licensure process.

15. Should girls get this vaccine on days when they are having their period?

Yes. The vaccine will have no impact on their menstrual cycle and is safe to give.

16. Can girls who are on the birth control pill get this vaccine?

Yes. Studies show that taking the birth control pill does not change the response to the vaccine.

17. What other jurisdictions are providing the HPV vaccine to their adolescents?

Australia, some states in the United States, PEI, Nova Scotia, Newfoundland and Ontario have programs to provide the vaccine to adolescent females.

18. How is HPV (Human Papillomavirus) different from HIV (Human Immunodeficiency Virus) and HSV (Herpes Simplex Virus)?

AIDS is caused by HIV (Human Immunodeficiency Virus) and Herpes is caused by HSV (Herpes Simplex Virus). While these three viruses have similar names and are all sexually transmitted they are very different diseases. The HPV vaccine does not protect against HIV or HSV.

Disease	How is it spread?	Where in the body does the virus stay?	Symptoms	Prevention	Treatment
HPV Human Papilloma virus	Skin to skin contact	Moist areas of the body like the genital region, anus, mouth and throat.	Usually there are no symptoms. Some people will get warts. Some women can get changes on their cervix detected by a Pap test.	Vaccine (Gardasil®) Condoms Delay sexual onset Limit number of sexual partners	Treatment of warts and changes on the cervix with medications, freezing or surgery.
HSV Herpes Simplex Virus	Skin to skin contact	In the genitals or mouth.	Painful ulcers	Condoms	No cure. Antiviral medication may help reduce symptoms.
HIV Human Immunodeficiency Virus	Exposure to blood or body fluids from an HIV-infected person	The body's immune system	Usually no symptoms. Can initially have symptoms of a mild "flu-like" illness. Can develop more symptoms as the infection worsens.	Condoms Universal precautions with body and body fluids	No cure. Antiviral medication may reduce symptoms.



19. What are other resources for HPV information?

<http://www.hpvinfos.ca/hpvinfos/teachers/lesson.aspx>

A web site put together by the Society of Obstetricians and Gynecologists of Canada (SOGC), the specialists who deal with female reproduction and diseases of the female reproductive organs including cervical cancer. A teacher's information kit about HPV includes questions to ask your class about the infection and the vaccine.

<http://www.cdc.gov/std/hpv/default.htm>

A web site created by the Centers for Disease Control and Prevention, in the United States. It has a specific area of the site devoted to teachers who are looking for information about HPV and the vaccine.

http://www.hc-sc.gc.ca/iyh-vsv/diseases-maladies/hpv-vph_e.html

Basic information on HPV. Includes a list of other web sites that have a good collection of information on the disease and vaccine.

<http://www.phac-aspc.gc.ca/std-mts/index.html>

The Public Health Agency of Canada's web site on HPV and HPV vaccine is a great location for information. It also includes a link to material about other sexually transmitted infections.

<http://sexualityandu.ca/teachers/index.aspx>

A web site developed by a number of Canadian national organizations including the SOGC that has a broad range of information on sexuality and sexual health issues including HPV and the vaccine.