

The HPV Vaccine: Information for Parents (and others considering it)



Canadian Women's
Health Network

Le Réseau canadien pour
la santé des femmes

Introduction

Many of us feel a lot of pressure to vaccinate our daughters with Gardasil. Advertising for the vaccine is everywhere. You may even be thinking that unless you accept this vaccination for your daughter, you are a bad parent. But to make a good decision for your daughter—to know what is right for her and for you—you need to have as much information as possible. What is this vaccine? What is it for? What are its limitations?

Gardasil is an HPV vaccine. HPV stands for Human Papillomavirus. Gardasil is the first vaccine against HPV to be approved here in Canada. Other vaccines have been approved in other countries or are in development. The government has made the vaccine available for free to young girls (mostly between the ages of 9-12), as part of a three-year program. Health officials chose this age group because these girls are unlikely to have had sexual contact yet. There are some differences among Provinces and Territories as to who exactly can get the free vaccine. Boys are not included as they were not part of the original research. The goal is to reduce the risk that these girls will develop cervical cancer later in their lives. For those who have never been infected with these viruses, Gardasil protects against four types of HPV.

Free access to the vaccine has created an opportunity for parents to talk with their daughters about sexual activity—and its risks—no matter what we decide about having our daughters get the shots. Although most adolescents do not have vaginal intercourse before about age 17, they may have other sexual activities that put them at risk for Sexually Transmitted Infections (STIs), including HPV.

HPV Infections

There are over 100 types of HPV. About 40 of these types can infect the genitals and reproductive system through sexual contact. Of these 40 types, about 13 are known to be causes of cervical cancer.

HPV viruses are very common. Many people get infected with HPV with their first sexual partner. Often, they don't even know they've been infected because they get rid of the virus and it does not lead to any symptoms or effects. HPV can be transmitted through vaginal sex, anal sex, oral sex, or skin-to-skin contact of the genitals.

The vast majority of people who get HPV infections will get rid of the virus within a period of nine months to two years. Most adults will have been infected at some point in their lives. Like other sexually transmitted infections, the higher the number of sex partners a person has, the greater the likelihood of getting an infection.

Of the sexually transmitted types of HPV, some are called high-risk and some are called low-risk.

Some women who get high-risk types may eventually get cervical cancer. Cancer is more likely to develop if the infection with a high-risk HPV type remains and causes cells to change. Having a Pap test would show if there were changes in a woman's cervix. Otherwise, she wouldn't know about these changes. Cervical cancer is usually a slow-growing cancer that progresses through a series of stages. The Pap test is a very effective tool for catching it early on when it can be treated. (See the box below on the Pap test.)

It's also important to know that infection with a high-risk HPV does not cause cancer on its own. There usually need to be other factors at work (for example, smoking, stress, a weakened immune system and poor nutrition).

Use of the Pap test has dramatically reduced the overall rate of cervical cancer in Canadian women. It is one very important strategy in dealing with this disease. Women in Canada who die of cervical cancer are, by and large, older women who have not had regular Pap tests or who have not had proper follow-up of an abnormal Pap.

Talking about Sex

Because cancer of the cervix is linked to a Sexually Transmitted Infection, your daughter needs to hear about some prevention strategies—ideally, from you. Open communication is the key. Maybe you have already been doing a great job talking about sexuality with your daughter. Maybe you have been shy or didn't know quite where to begin.

Now is a good time to be frank. You can help her by talking openly and teaching her to do this, too. Because of the probability of her becoming sexually active at some point in the future, she will need to learn how to be clear:

- about what she wants—and what she doesn't want
- about protecting herself, for example, against sexually transmitted infections or unplanned pregnancy.

Part of good sexuality education is giving your daughter the tools to stay healthy and to lower, as much as she can, her chances of getting any STI, including HPV. So be sure to tell her:

"It's better to wait until you are at least 18 before having vaginal sex."

You may have personal reasons why you want your daughter to wait. There are also health reasons. The cells on the cervix are immature and can get infected more easily with high-risk HPV before age 18 through unprotected vaginal sex.

"If you have sex, you need to use condoms every time."

Condoms offer good protection against the bacteria and viruses that cause STIs for the body parts that are covered. This includes HPV. Of course, people need to know how to use condoms properly and how to talk about using them.

"It is important to have regular Pap tests and Sexually Transmitted Infection (STI) tests."

Every female needs to start having Pap tests within three years of her first vaginal sexual activity, whether with a male or female partner. It is also important to get an annual STI test or whenever you have a new sex partner. You may need to find out if regular Pap testing and follow-ups are available where you live. Often health units, schools, and community agencies have special clinics for teenagers.

Because it is easier for the body to clear HPV when it is healthy, there are some general health messages your daughter needs to hear, too:

"Please don't smoke. Nicotine goes straight to the cervix."

Smoking is a factor in the development of cancer of the cervix. Girls already know they're not supposed to smoke because of other cancers. This is one more reason.

"Eat well, get rest, exercise, manage stress."

These are some of the strategies for lowering the chances of getting an infection that could lead to cervical cancer. Vaccines are another. Gardasil is the vaccine that is currently available.

The Gardasil Vaccine and HPV

The research available to date on Gardasil tells us that the vaccine is very effective in preventing infections with HPV types 6 and 11 that cause the majority of genital warts, and with types 16 and 18 that cause the majority of cases of cervical cancer.

Gardasil has been shown to be very effective in preventing the cell changes in the cervix that can lead to cervical cancer. By preventing these ►

cell changes, it is believed likely that cervical cancer will be prevented. However, because cervical cancer is slow growing, usually taking up to ten years to develop, it is too early to know for sure if Gardasil will prevent cervical or other cancers and, more importantly, reduce the chances of death from it.

Some important points to keep in mind:

- The vaccine is not a treatment or a cure for either genital warts or cervical cancer.
- The vaccine is not nearly as effective if a girl or woman has already had sexual contact.
- The vaccine will not stop abnormal cells or cancer from forming if a person already has an HPV infection.

Gardasil is normally given in three separate shots over the course of a school year. In terms of short-term side effects of the vaccine, they do not seem to be very different from other vaccines. Side effects that we know about can include fainting, pain and swelling at the injection site (the arm), headache, nausea and fever. Other more serious adverse effects that have been found in girls who have received the vaccine are in small enough numbers that it is difficult to determine if it is the vaccine causing the problem. Because the vaccine is so new, there may be things we do not know about its long-term safety.

The longest clinical trial for Gardasil was six years. From this, we know that Gardasil appears to be effective for up to about six years. However, we do not yet know for how many years longer the protection will last. As with many other vaccines (e.g., chicken pox, mumps, and tetanus vaccines), your daughter may need to receive—and pay for—a booster shot in the future, perhaps in ten years. Research is ongoing about this.

Gardasil vaccine protects specifically against two of the approximately 13 known high-risk types of HPV (Type 16 and Type 18). Although research done to date suggests that these are present in 70 per cent of the cervical cancers studied, we do not know if these types are the most common ones in all communities in Canada. This missing information is important because the effectiveness promised by the vaccine is based on assumptions about the frequency of Types 16 and 18. In fact, other HPV vaccines that include more high-risk HPV types are being developed.

Gardasil is a very expensive vaccine that local governments are now offering free to young girls. This opportunity is making some parents feel pressured to allow their daughter to have it immediately.

Your daughter needs to know exactly what the vaccine can and cannot do to protect her. Some girls think they are going to be protected from all STIs, including HIV/AIDS. They need reminders that the HPV vaccine only protects against certain strains of HPV, not all, and it does not protect against any other common STIs. **Moreover, girls and women need to remember that they must continue to have Pap tests and pelvic exams even if they've been vaccinated.** If women do stop or reduce their screening, they may miss an early cancer and miss an opportunity to find out about other issues such as gonorrhoea or chlamydia infections.

So, no matter what you and your daughter decide, she will still need to:

- practise safer sex
- have regular pelvic exams with Pap and STI testing
- do what she can to stay healthy

Vaccine or no vaccine?

The decision is up to each of us, in discussion with our daughters. Based on the research that has been done so far, Gardasil is currently considered as safe as other vaccines. It is effective against four specific HPV types for at least six years. Vaccination is not the only strategy for reducing the risk of getting cervical cancer, but Public Health officials believe it can be an important one in avoiding its development. If your daughter gets the vaccine, you will both need to keep updated on the research about the vaccine—especially about how long it lasts and if she will need a booster.

If your daughter does not get the vaccine, she will have to do exactly what girls who get the vaccine have to do: be careful, and have regular Pap tests.

The Pap test checks the cervix for abnormal cells. When the nurse or doctor removes some cells from the cervix (the opening to the uterus) and sends the test to the lab, usually the result is normal. But the results may show atypical or unusual cells or even what is called a low-grade lesion. For healthy women under 30 with a good immune system, the next Pap test is usually normal. However, if a woman continues to have atypical cells on her cervix, or if she has a high-grade lesion, she will probably need treatment. The purpose of the treatment is to remove these cells before they can develop into cancer.

Additional materials that may be helpful in your decision-making:

HPV, Vaccines, and Gender: Policy Considerations, Canadian Women's Health Network, 2007. www.cwhn.ca/resources/cwhn/hpv-brief.html

"Human papillomavirus, vaccines and women's health: Questions and cautions", Abby Lippman, Ryan Melnychuk, Carolyn Shimmin, Madeline Boscoe, *Canadian Medical Association Journal*, Vol. 177, No. 5, August 28, 2007. www.cmaj.ca/cgi/content/full/177/5/484

Ten Good Reasons to Be Concerned About the Human Papillomavirus Vaccination Campaign

Prepared by the Fédération du Québec pour le planning des naissances. English version to be posted at www.cwhn.ca and www.whp-apsf.ca

Dix bonnes raisons d'être préoccupées par la campagne de vaccination contre le virus du papillome humain (VPH), Fédération du Québec pour le planning des naissances, 2008. www.fqpn.qc.ca/contenu/pdf/VPH_Dixbonnesraisons.pdf

"Debates: Do you approve of spending \$300 million on HPV vaccination? No.", Abby Lippman, Madeline Boscoe and Carol Scurfield, *Canadian Family Physician*, Vol. 54, February 2008. www.pubmedcentral.nih.gov/picrender.fcgi?artid=2278297&blobtype=pdf

"HPV, cervical cancer and you", *Journal of Midwifery and Women's Health*, Vol. 53, No. 3, May/June 2008.

The HPV Vaccine Controversy, Institute of Science in Society Press Release, January 5, 2009. www.i-sis.org.uk/HPV_Vaccine_Controversy.php

Reports of Health Concerns Following HPV Vaccination. Centers for Disease Control. 2009. www.cdc.gov/vaccinesafety/vaers/gardasil.htm

Research about Gardasil, HPV, and cervical cancer is ongoing. To keep up-to-date with the latest information, you can check with your provincial or territorial Health Department, and the websites of the CWHN and Women and Health Protection.

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