



## Human Papillomavirus (HPV) Prevention and HPV Vaccines: Questions and Answers

- What is HPV?
- How can you protect yourself from getting HPV?
- Who should get the vaccine?
- What do the vaccines protect against?
- How effective are the vaccines?
- Are the vaccines safe?
- Will girls/women who have been vaccinated still need cervical cancer screening?
- How long does vaccine protection last? Will a booster shot be needed?
- How do I obtain the vaccine? Do I need to pay for the vaccine?

### What is HPV?

There are over 100 types of human papillomavirus (HPV), each one having a number to identify it, for example HPV-6, HPV-11, HPV-16 and HPV-18. Human papillomaviruses are viruses that can infect many parts of the body. Some types of HPV are sexually transmitted and can cause warts or other consequences such as cancer (e.g., cervical, penile and anal). The types of HPV that infect the anal and genital (anogenital) areas are not the same as the ones that infect other areas of the body such as the fingers, hands and face. The types which cause anogenital warts do not usually cause cancer.

The various types of HPV are often classified into low and high risk according to their association with cancer. The "low-risk" types are rarely associated with cancer. The "high-risk" types are more likely to lead to the development of cancer. Although certain types of HPV are associated with cancer, the development of HPV related cancer is considered a rare event.

### How can you protect yourself from getting HPV?

While condoms do not eliminate the risk of HPV infection, using a condom consistently and properly during vaginal, anal and oral sex decreases the chances of getting HPV or passing it on to your partner. You need to remember that a condom can only protect the area it covers so it may be possible to become infected by any uncovered warts (e.g., 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 include delaying sexual activity (waiting until you are older), limiting your number of sexual partners and considering your partners' sexual history as this can create a risk to yourself (e.g., if they have had multiple previous partners).

There are now two HPV vaccines authorized for use in Canada: Gardasil<sup>®</sup> and Cervarix<sup>®</sup>.

Gardasil<sup>®</sup> provides protection against four HPV types: two that cause approximately 70 per cent of all cervical cancers (HPV-16, HPV-18) and two that cause approximately 90 per cent of all anogenital warts in males and females (HPV-6 and HPV-11). It is approved for use in females and males aged 9 to 26.

Cervarix<sup>®</sup> provides protection against the two HPV types that cause approximately 70 per cent of all cervical cancers (HPV-16 and HPV-18). It has been approved for use in females aged 10 to 25.



## Who should get the vaccine?

### *Gardasil*<sup>®</sup>

Gardasil<sup>®</sup> is approved for use in females and males aged 9 to 26. The vaccine requires 3 doses to be given over the course of 6 months (0, 2 and 6 months).

Recommendations for use, which come from the National Advisory Committee on Immunization (NACI), were released in February 2007. The primary age group recommended for vaccination according to NACI is females aged 9 to 13. HPV is a sexually transmitted infection, and ideally, the vaccine should be administered to females before they become sexually active in order to ensure maximum benefit. They also recommend the vaccine for females 14 to 26 years of age as there still is the potential for benefit regardless of previous history of sexual activity, Pap abnormalities, cervical cancer, anogenital warts or a known HPV infection. These recommendations were made prior to the approval of the vaccine for use in males. NACI is currently reviewing the current recommendations in Canada, in light of the approval of Gardasil<sup>®</sup> for males.

For more details on the NACI Statement, see <http://www.phac-aspc.gc.ca/publicat/ccdr-rmtc/07vol33/acs-02/index-eng.php>

### *Cervarix*<sup>®</sup>

Cervarix<sup>®</sup> was recently approved for use in Canada for females aged 10 to 25. At this time Cervarix<sup>®</sup> has not been approved for use in males in Canada. The vaccine requires 3 doses to be given over the course of 6 months (0, 1 and 6 months).

NACI and the Canadian Immunization Committee (CIC) are currently reviewing the current recommendations in Canada, in light of the approval of Cervarix<sup>®</sup>.

## What do the vaccines protect against?

Gardasil<sup>®</sup> provides protection against four HPV types: two that cause approximately 70 per cent of all cervical cancers (HPV-16, HPV-18) and two that cause approximately 90 per cent of all anogenital warts in males and females (HPV-6, HPV-11).

Cervarix<sup>®</sup> provides protection against the two HPV types that cause approximately 70 per cent of all cervical cancers (HPV-16, HPV-18).

The HPV vaccines will not have an impact on an existing infection or any of the outcomes of an existing HPV infection, such as anogenital warts. The vaccines are preventative against infection with the virus types for which they are indicated. There is currently no vaccine that will give protection against all HPV types.

## How effective are the vaccines?

The HPV vaccines have demonstrated very high efficacy in preventing the types of HPV infection for which they are indicated (see above). If you are infected with one of the HPV types in the vaccine, the vaccine will still protect against the other type(s) in the vaccine. HPV DNA testing is not recommended prior to vaccination.

### **Are the vaccines safe?**

Yes, the vaccines are safe. For both vaccines, the most common side effect is brief soreness at the site of injection. Also, you cannot become infected with HPV from the vaccines and the vaccines do not contain any antibiotics or preservatives, including mercury or thimerosal.

### **Will girls/women who have been vaccinated still need cervical cancer screening?**

The HPV vaccines currently available do not protect against all types of HPV. Even when someone is vaccinated, it is still possible to become infected with one of the types of HPV that the vaccine does not protect against. Therefore, it is important that vaccinated girls/women continue to have regular Pap tests. For more information, see the ["It's Your Health" Fact Sheet on screening for cervical cancer](#). The recommendations for Pap screening vary depending on the province or territory you live in. Ask your local health care provider about the recommendations in your region.

### **How long does vaccine protection last? Will a booster shot be needed?**

According to recent studies, Gardasil<sup>®</sup> is effective for 7.3 years and Cervarix<sup>®</sup> is effective for 6.4 years. Studies are ongoing to determine the length of time for which the vaccines will provide protection and if further immunization or a booster dose is necessary for continued protection.

### **How do I obtain the vaccine? Do I need to pay for the vaccine?**

The provision of free medications, vaccines and health services is a decision that is made within each province and territory. Please check with your provincial/territorial public health department. If you or your child is not eligible for HPV vaccination under an immunization program, you can speak with your healthcare provider if you wish to purchase the vaccine.