

Human papillomavirus (HPV) vaccines

What are HPV vaccines?

The HPV vaccines protect against infection from certain types of human papillomavirus (HPV) that cause cancers of the anus, cervix, mouth and throat, penis, vagina and vulva as well as genital warts. There are 2 HPV vaccines available in Canada: Cervarix® (HPV2) and Gardasil®9 (HPV9). The vaccines are approved by Health Canada, with HPV9 approved for use in both sexes, and HPV2 approved for use only in females. Gardasil®9 (HPV9) is provided free to eligible people in BC.

Both vaccines protect against 2 types of HPV that cause about 70% of cases of cervical cancer and 80% of cases of anal cancer. The HPV9 vaccine protects against 5 additional types of HPV that cause 15% to 20% of cervical cancers and 11% of anal cancers in females and 4% in males. The HPV9 vaccine also protects against 2 types of HPV that cause about 90% of cases of genital warts.

Who should get the HPV vaccine?

The HPV9 vaccine is provided free to all students in grade 6. People who missed getting the HPV vaccine can receive it for free as long as they get their first dose before they turn 19 and the last dose before they turn 26.

The HPV9 vaccine is also provided free to individuals 19 to 26 years of age who are:

- HIV positive
- Two-Spirit, transgender or non-binary
- Males who have sex with males, including those who may not yet be sexually active and are questioning their sexual orientation
- Males who are street-involved

Contact your health care provider to get immunized.

Unless mentioned above, the HPV9 vaccine is recommended, but not provided free, for:

- Females 19-45 years of age
- Males 19 to 26 years of age

- Males 27 years of age and older who have sex with males

The HPV vaccines are given as a series of either 2 or 3 doses over a 6 month period. Children who start a series when they are 9 to 14 years of age need 2 doses given at least 6 months apart. People who start a series when they are 15 years of age and older and those with a weakened immune system need 3 doses.

Those not eligible for free HPV vaccine can buy it at most pharmacies and travel clinics.

It is best to get immunized before becoming sexually active and coming in contact with HPV because the vaccines prevent infection but do not clear it.

What are the benefits of HPV vaccines?

In females who have never been infected with HPV, the vaccines prevent almost 100% of cases of cervical cancer caused by the HPV types covered by the vaccines.

The HPV9 vaccine also prevents about:

- 78% of cases of anal cancers in males caused by the two main types of HPV
- 90% to 100% of cases of genital warts caused by 2 other types of HPV

It is important to have regular cervix screening because the HPV vaccine protects against most but not all types of HPV that cause cervical cancer.

What are possible reactions to the vaccines?

Common reactions to the vaccines may include soreness, redness and swelling where the vaccine was given. Fever, fatigue, headache, and muscle or joint ache may also occur.

Acetaminophen (e.g. Tylenol®) or ibuprofen (e.g. Advil®) can be given for fever or soreness. ASA (e.g. Aspirin®) should not be given to anyone under 18 years of age due to the risk of Reye syndrome.

For more information on Reye syndrome, see [HealthLinkBC File #84 Reye syndrome](#).

It is important to stay in the clinic for 15 minutes after getting any vaccine because there is an extremely rare possibility, less than 1 in a million, of a life-threatening allergic reaction called anaphylaxis. This may include hives, difficulty breathing, or swelling of the throat, tongue or lips. If this reaction occurs, your health care provider is prepared to treat it. Emergency treatment includes administration of epinephrine (adrenaline) and transfer by ambulance to the nearest emergency department. If symptoms develop after you leave the clinic, call **9-1-1** or the local emergency number.

Always report serious or unexpected reactions to your health care provider.

Who should not get the HPV vaccine?

Speak with your health care provider if you or your child has had a life-threatening reaction to a previous dose of HPV vaccine or to any part of the vaccine, including yeast. People who are pregnant should not get the vaccine.

There is no need to delay getting immunized because of a cold or other mild illness. However, if you have concerns speak with your health care provider.

What is HPV?

HPV is one of the most common sexually transmitted infections (STIs). About three out of 4 sexually active people who are unimmunized will get HPV at some time. Anyone who has any kind of oral, genital or anal sexual contact can get HPV. Sexual intercourse is not necessary to get infected. The more sexual partners you have the higher the risk of being infected with

HPV. Males who have sex with males are also at higher risk of HPV infection.

What happens when you are infected with HPV?

Most people infected with HPV do not show any signs or symptoms and can pass the virus on to others without even knowing it. Most often an HPV infection will clear on its own. For some people, HPV will not go away and cells infected with the virus can become pre-cancerous or cancerous over time.

Every year in B.C. approximately:

- 210 people will get cervical cancer and 55 will die from the disease
- 6,000 people will develop high risk changes to the cervix which are precancerous
- 135 people will get anal cancer and 20 will die from the disease
- 5,500 people will develop genital warts

Mature minor consent

It is recommended that parents or guardians and their children discuss consent for immunization. Children under the age of 19, who are able to understand the benefits and possible reactions for each vaccine and the risk of not getting immunized, can legally consent to or refuse immunizations. For more information on mature minor consent see [HealthLinkBC File #119 The Infants Act, mature minor consent and immunization](#).

For more information

- [HealthLinkBC File #101a Human papillomavirus \(HPV\) infection and genital warts](#)
- ImmunizeBC at <https://immunizebc.ca>



ImmunizeBC



BC Centre for Disease Control
Provincial Health Services Authority

For more HealthLinkBC File topics, visit www.HealthLinkBC.ca/more/resources/healthlink-bc-files or your local public health unit. For non-emergency health information and advice in B.C. visit www.HealthLinkBC.ca or call **8-1-1** (toll-free). For the deaf and hard of hearing, call **7-1-1**. Translation services are available in more than 130 languages on request.