Family Resource



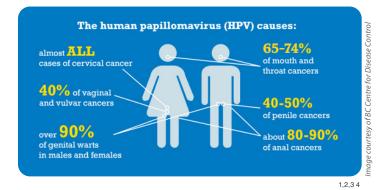
HPV VACCINE: WHAT PARENTS NEED TO KNOW TO PROTECT THEIR CHILDREN FROM HPV CANCERS

WHAT IS HUMAN PAPILLOMAVIRUS (HPV)?

• Human Papillomavirus, known as HPV, is a family of over 100 viruses. About 20 HPV viruses are high risk and cause several types of cancers and genital warts.

In women HPV causes virtually all cervical cancers; pap smears screen for cervical cancer. The most common types of HPV related cancers in males and females are mouth and throat (oropharyngeal) and anal cancer.¹

In 2012 there were 1,200 Canadians who died from HPV associated cancer. About one third of the deaths were due to cervical cancer (despite widely available pap tests) one third from mouth and throat cancer and the other third from vagina, vulva, anal and penile cancers. Anal cancers rates are increasing in women even more so than men. Mouth and throat cancers are increasing faster in males than females.^{1,2}



If a mother is infected with HPV during delivery of a baby, she is capable of transmitting the virus during childbirth and her baby may develop HPV warts in the throat.⁵

HPV also causes genital warts.²

HOW COMMON IS HPV?

• HPV infects 75% - 90% of the population during their life time.^{6,7,8}

Most HPV high risk infections clear on their own somewhere between 4 months and 2 years after infection. When HPV does not clear it becomes chronic and can lead to precancerous lesions and cancer.^{1,8,9}

HPV is spread by sexual contact through skin to skin or mucous membrane contact. Penetration is not necessary for the spread of HPV. HPV is the most common sexually transmitted infection.⁹

WHY SHOULD MY CHILD GET THE HPV VACCINE?

• Boys and girls should get the vaccine in their preteen years when the immune response (antibodies) to HPV vaccine is strongest, before they have sexual contact of any kind, and when only 2 doses are needed.^{9,10}

HPV9 is part of the publicly funded grade 6 school immunization program in BC.^{10,11}

You may ask your Family Doctor, Pediatrician, Pharmacist or Nurse Practitioner about the vaccine.

HPV vaccination is recommended and publicly funded in BC for grade 6 students, as part of the routine immunization program. HPV vaccination is recommended and publicly funded in BC for HIV+ individuals 9-26 yrs of age who have not received a complete series of HPV vaccine, high-risk males 9-26 years of age, including those who have sex with men, street involved youth, boys who may be questioning their sexual identity, and youth in custody.¹¹

HPV vaccine is indicated but not publicly funded for all females 9 - 45 years of age, all males 9 - 26 years of age and males 27 years of age and older who have sex with men.¹¹

HOW DOES THE VACCINE WORK?

• It stimulates the immune system to produce antibodies against HPV infections.

Particles of HPV types that most commonly cause cervical, mouth and throat, anal, vaginal and vulvar pre-cancers and cancers (HPV types 16, 18, 31, 33, 45, 52, and 58) and 90% of genital warts (HPV 6 and 11) are manufactured. The vaccine cannot cause infection because only a part of the virus protein is manufactured to make vaccine.²

HPV9 vaccine protects against over 90% of cervical and anal cancers, almost all HPV associated mouth, throat, vaginal and vulvar cancers and 90% of genital warts.¹¹

IS THE VACCINE SAFE?

• Hundreds of millions of doses of the HPV vaccine have been distributed and the vaccine has been found to be extremely safe.

The HPV vaccine safety has been monitored since it was licensed in 2006 and any reported reactions or side effects fully investigated. All vaccines are carefully monitored for safety before and after they are approved as long as the vaccines are being used.^{13,14}



WHAT ARE THE VACCINE SIDE EFFECTS?

 Common side effects are pain, redness, or swelling in the arm where the shot was given.

Other side effects that have been reported include headache, feeling tired, fever, sore muscles. Fainting has occasionally been reported in teenage girls probably due to anxiety about the shot.^{13,14}

Accidental administration of HPV vaccine during pregnancy has no known adverse outcomes in either mother or infant.¹³

HOW IS THE VACCINE GIVEN?

• The vaccine is given as an injection (shot) in the arm.

Grade 6 girls and boys receive 2 doses of the vaccine 6 months apart in BC.^{11,15}

The vaccine can be given at the same time as other shots, or any time before or after.

For children 15 years and older and immunocompromised children over 9 years of age 3 doses of the vaccine are given at 0, 2, and 6 months.^{11,15}

At this time there is no recommendation for a booster shot.^{2,12}

WHERE CAN I GET HPV VACCINE?

• HPV vaccine is given in schools as part of the grade 6 publicly funded vaccine program.^{11,15}

If your child misses a dose or qualifies for publicly funded vaccine, contact your Health Unit, Family Doctor, or Pharmacist.

Those who do not commence a series in grade 6 are eligible to initiate a series prior to age 19 (for males, born in 2006 or later), but not thereafter. A series commenced prior to age 19 may be completed with publicly funded HPV vaccine prior to the 26th birthday.¹¹

Anyone who is not eligible for free HPV vaccine but would like to receive the vaccine may be able to purchase it. Contact a Health Unit, Travel Clinic, Pharmacist or Family Doctor.

Reference list available on the following page, page 3.



DON'T WAIT, PROTECT YOUR KIDS FROM HPV CANCERS!

This resource was created independently by BC Pediatric Society, made possible through Merck Canada Inc. support. The opinions expressed in this material are those of the author and do not necessarily reflect the views of Merck Canada Inc.



REFERENCE LIST

- Canadian Cancer Society's Advisory Committee on Cancer Statistics. Canadian Cancer Statistics 2016. Toronto, ON: Canadian Cancer Society; 2016. Retrieved August 2017 from: <u>http://www.cancer.ca/~/media/cancer.ca/CW/</u> <u>cancer%20information/cancer%20101/Canadian%20cancer%20statistics/Canadian-Cancer-Statistics-2016-EN.</u> <u>pdf?la=en</u>
- National Advisory Committee on Immunization. Update on Human Papillomavirus (HPV) Vaccines. January 2012
 Volume 38 ACS-1ISSN 1481-8531. Retrieved August 16, 2017 from: <u>https://www.canada.ca/content/dam/phac-aspc/migration/phac-aspc/publicat/ccdr-rmtc/12vol38/acs-dcc-1/assets/pdf/12vol-38-acs-dcc-1-eng.pdf</u>
- Habbous, S et al. Human papillomavirus in oropharyngeal cancer in Canada: analysis of 5 comprehensive cancer centres using multiple imputation. *CMAJ* 2017 August 14;189:E1030-40. doi: 10.1503/cmaj.161379. Retrieved August 16, 2017 from: <u>http://www.cmaj.ca/content/189/32/E1030.full.pdf</u>
- Stein et al. Prevalence of Oropharyngeal Cancer: A systematic review. Cancer J. 2015; 21(3): 138–146. doi:10.1097/ PPO.000000000000115. Retrieved August 16, 2017 from: <u>https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4459520/</u> pdf/nihms680699.pdf
- 5. Abramson AL, Nouri M, Mullooly V et al. *Latent human papillomavirus infection is comparable in the larynx and trachea.* J Med Virol 2004;72:473-7.
- 6. Koutsky LA. *Epidemiology of genital human papillomavirus infection*. Am J Med 1997;102(5A):3-8. Retrieved August 10, 2017 from: <u>http://www.sciencedirect.com/science/article/pii/S0002934397001770</u>
- Chesson HC, Dunne EF, Hariri S, Markowitz LE. *The Estimated Lifetime Probability of Acquiring Human Papillomavirus in the United States*. Sexually Transmitted Diseases. 41(11):660–664, NOV 2014. Retieved August 10, 2017 from: <u>https://insights.ovid.com/pubmed?pmid=25299412</u>
- Trottier H, Franco EL. The epidemiology of genital human papillomavirus infection. Vaccine 2006;24S1:4-15. Retrieved August 10, 2017 from: <u>https://doi.org/10.1016/j.vaccine.2005.09.054</u>
- 9. World Health Organization. *Human papillomavirus (HPV) and cervical cancer*. Retrieved June 29, 2017 from: <u>http://www.who.int/mediacentre/factsheets/fs380/en/</u>
- 10. ImmunizeBC. Frequently Asked Questions about the HPV Vaccine. 2012. Retrieved August 10, 2017 from: <u>http://www.immunizebc.ca/diseases-vaccinations/hpv/hpv-vaccine-faq-0</u>
- 11. BC Centre for Disease Control. Vaccines in BC, Human Papillomavirus (HPV) Vaccine. Retrieved October 3, 2019 from: <u>http://www.bccdc.ca/resource-gallery/Documents/Guidelines%20and%20Forms/Guidelines%20and%20</u> <u>Manuals/Epid/CD%20Manual/Chapter%202%20-%20Imms/Part4/HPV9.pdf</u>
- Public Health Agency of Canada. An Advisory Committee Statement (ACS) National Advisory Committee on Immunization (NACI) Updated Recommendations on Human Papillomavirus (HPV) Vaccines: 9-valent HPV vaccine and clarification of minimum intervals between doses in the HPV immunization schedule. April, 2017. Retrieved June 28, 2017 from: <u>http://www.healthycanadians.gc.ca/publications/healthy-living-vie-saine/humanpapillomavirus-9-valent-vaccine-update-recommendation-mises-a-jour-recommandations-papillome-humain-vaccinnonavalent/alt/hpv-phv-eng.pdf
 </u>
- World Health Organization. Weekly epidemiological record. Safety update of HPV vaccines. No 28, 2017, 92, 93– 404. Retrieved August 11, 2017 from: <u>http://apps.who.int/iris/bitstream/10665/255870/1/WER9228.pdf?ua=1</u>
- 14. British Columbia Centre for Disease Control. Vaccine Safety. Retrieved August 11, 2017 from: <u>http://www.bccdc.ca/health-info/immunization-vaccines/vaccine-safety</u>
- 15. British Columbia Centre for Disease Control. Immunization Manual. Retrieved August 11, 2017 from: <u>http://www.</u> <u>bccdc.ca/health-professionals/clinical-resources/communicable-disease-control-manual/immunization</u>