

HPV Facts

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Human papillomavirus (HPV) infection is the most common sexually transmitted infection (STI), affecting approximately half a million Canadians annually.^{1,14} Reports show that 75% of all sexually active men and women will develop an HPV infection during their lifetime.^{1,5,9,13,14} Data suggest that within three years after initiation of sexual activity, up to 48% of women will have evidence of cervical HPV infection.⁸ In a recent multinational study conducted in 5455 young women who reported a lifetime history of four or fewer sexual partners, nearly one-third had evidence of some type of HPV infection.⁹

Most HPV infections are asymptomatic, and resolve on their own.¹³ HPV types 16 & 18 are responsible for 70% of all cervical cancers.^{1,4,9} HPV types 6 & 11 are low risk for cancer, but cause 80% of genital wart infections.¹ HPV is known to be a causative agent of cervical cancer as well as cancer of the vulva, vagina, anus, penis and oropharynx.^{1, 4, 5, 8, 9, 10, 13, 14} Cervical cancer is the second most common type of cancer, killing more than 200 000 women each year worldwide.^{1, 2, 12} 1 in 138 Canadian women will develop cervical cancer in their lifetime; every year there are 1300 new cases diagnosed. 400 Canadian women will die from cervical cancer each year, making it the thirteenth most common cause of cancer related deaths.⁵

HPV is transmitted by skin-to-skin contact, usually but not necessarily during sexual intercourse.^{4,5, 14} Condoms are not 100% effective at preventing HPV infection because they only protect the covered area, uncovered genital warts are infectious.^{3,4,5} The lifetime number of sexual partners that a woman has is an important predictor of HPV infection.^{3,4} The male partner's number of prior intimate contacts also impacts the risk of HPV infection.³ The median reported number of partners is 3.7 for females and 5.4 for males.³ 14.3% of women reporting one lifetime partner to date, 22.3% with two, and 31.5% with three or more lifetime partners will be infected with at least one HPV type.³

Gardasil, HPV vaccine against types 6, 11, 16, & 18, is indicated for prevention of cervical, vulvar, & vaginal cancer, precancerous lesions and genital warts.^{2,11,13} Antibodies have been shown to persist for at least four and a half years following vaccination, waning immunity over time did not lead to breakthrough infection.⁸ Vaccinated women still need cervical cancer screening because the vaccine does not protect against all HPV types that cause cervical cancer.¹³

Routine immunization is recommended at age 11 or 12; prior to a girl becoming sexually active.^{3,13} The 2005 US Youth Risk Behavior Survey showed that a median of 3.6% of female students had become sexually active before 13 years of age.³ Adolescent men and women mount higher antibody responses to the quadrivalent vaccine than do young adults.¹¹ When administered to subjects who had not been previously exposed, the prophylactic HPV vaccine was highly effective (98%); efficacy was lower (44%) for the population of all women, which also included subjects who had HPV related cervical neoplasia or infection with HPV before the first injection.¹²

References

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