



Do I need the HPV Vaccine?

The Human Papilloma Virus (HPV) is a sexually transmitted virus that causes squamous cell cervical cancer and cervical adenocarcinoma, and their precursors: cervical dysplasia and cervical adenocarcinoma-in-situ. HPV also causes genital warts (condyloma accuminata) and 35-50% of vulvar and vaginal cancers. The virus is very common. Studies of girls ages 15-19 with 1 lifetime sexual partner indicate that 46% of these girls will be infected with HPV during their first 6 months of sexual activity, with an average onset of infection 2.6 months after the initiation of sexual activity. Evidence of HPV infection is documented by HPV screening on Pap smears or by the development of genital warts. The incubation period between exposure to the virus and testing HPV positive or developing genital warts is unclear, but has been shown to be up to 3 years. The good news is that once infected, 80 % of individuals will clear the virus within 2 years.

There are 15-20 strains of oncogenic (cancer-causing) HPV virus. Gardasil, the HPV vaccine, is indicated in girls and women ages 9-26 years for the prevention of diseases caused by 4 strains of the virus: HPV types 6, 11, 16, and 18. In extensive clinical trials, Gardasil was effective in preventing 100 percent of high grade dysplasia and carcinoma-in-situ caused by these 4 strains, which account for 70 percent of all high grade neoplasia of the cervix. In women already infected with one strain of the virus, the vaccine would provide protection from the remaining 3 virus types covered by the vaccine. Obviously, the vaccine offers no protection to other strains of HPV not contained in the vaccine. The vaccine is **not** intended for **treatment** of active genital warts, cervical cancer, or of vaginal and vulvar neoplasia. The vaccine will not protect against other sexually transmitted infections such as gonorrhea, Chlamydia, or HIV.

The vaccine is given in a series of 3 intramuscular injections (shots in the upper arm or thigh) at the initial date, then 2 months after 1st dose, and then 6 months after 1st dose. Common side effects of the injection are pain, swelling, and redness at the injection site. Fever, nausea, dizziness, diarrhea and other serious side effects are rare. The HPV vaccine may be given with the Hepatitis B vaccine. The cost of the vaccine is >\$100/dose and insurance coverage may be variable as the vaccine has only recently been released. It is recommended that you check with your insurance carrier about coverage.

So, who should receive the vaccine? Ideally, the vaccine should be given to adolescent girls after age 9, but before becoming sexually active. In this scenario, the vaccine has the opportunity to prevent 70 percent of cervical cancers, precancers, and genital warts. Older adolescents and women who are already sexually active may already have been exposed to at least one strain of the virus, but the vaccine would prevent infection with the other 3 strains of the virus included in the vaccine, which is estimated to prevent about 40 % of HPV-related diseases. The vaccine will not prevent all HPV infections as it only protects against 4 of the estimated 15-20 strains of HPV. For additional information, go to www.hpv.com and www.gardasil.com, or contact our office.

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