

Minnesota Department of Health

# Human Papillomavirus (HPV) Vaccine: What You Should Know

What is human papillomavirus (HPV)? Human papillomavirus is a common virus that infects the skin, particularly the genital area and mouth and throat. There are over 100 types of human papillomaviruses, and about 40 of them are spread through sexual contact. HPV types are categorized as either high risk (those that might lead to cancer) or low risk (those that do not lead to cancer).

How common is HPV in the United States?

HPV infections are very common. Right now about 20 million people in the U.S. have HPV and over 6 million more are newly infected each year – mostly people who are in their late teens and early 20s. At least half of sexually active Americans are infected with HPV at some point in their lives. Many people get infected with more than one type of HPV.

What are the symptoms?

Most of the time there are no symptoms, and most HPV infections go away on their own.

Some HPV types can cause ongoing (chronic) infections. In females, HPV infection of the cervix causes abnormal Pap smears. Chronic HPV infection can lead to cervical cancer. The only way to know if you have a chronic infection is by having regular Pap smears.

HPV can also infect and cause certain head and neck cancers, as well as cancer of the vulva, vagina, penis, or anus. These infections usually go unnoticed.

HPV can cause genital warts, which can be uncomfortable and irritating and can reoccur. Sometimes genital warts spread to a baby during birth and infect the baby's lungs and airway.

How common is HPV-related cancer? Annual Pap smears have been highly successful in reducing cervical cancer in the United States.

Currently about 12,000 cases of cervical cancer occur as the result of chronic HPV infection, and about 3,700 women die of cervical cancer in the U.S. each year. In Minnesota, about 175 women are diagnosed with this disease each year and about 50 die.

However, the number of head and neck cancers caused by HPV is thought to be rising. Current estimates indicate that HPV causes about 7,000 cases of head and neck cancer annually in the U.S., mostly among men. HPV is also responsible for about 4,000 anal cancers, 400 penile cancers, 1,500 vulvar cancers, and 500 vaginal cancers each year in the U.S.

How do you prevent HPV infections?

Not having sex is the surest way to prevent HPV infections. Reducing the number of sexual partners and using condoms will reduce the risk of getting an HPV infection, but may not entirely prevent infection.

There are two HPV vaccines available, Gardasil and Cervarix.<sup>1</sup> Both protect against the HPV types that cause about 70 percent of cervical cancer. Gardasil also protects against the HPV types that cause about 90 percent of genital warts. To prevent infection, you need a series of three HPV shots, given in the arm.

<sup>1</sup> Brand names are used for the purpose of clarifying product characteristics and are not in any way an endorsement of either product.

Does the HPV vaccine work?

Yes, both vaccines are very good at protecting against the types of HPV that cause the majority of cervical, vaginal, vulvar, and anal cancers, as well as some penile cancers, and Gardasil is highly effective in preventing



Immunization Program  
P.O. Box 64975  
St. Paul, MN 55164-0975  
1-800-657-3970 or 651-201-5503  
[www.health.state.mn.us/immunize](http://www.health.state.mn.us/immunize)

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genital warts. We know that the current vaccines protect against HPV types that are associated with head and neck cancers; however, studies are not yet available to verify that they effectively prevent these cancers. It is important to know the vaccines do not protect against every type of HPV, and they do not help treat a person who already has an HPV infection.

After vaccination, are Pap smears still necessary?

Yes. It is still very important for all women to get regular Pap smears - even after they get vaccinated against HPV. Pap smears save lives. While the vaccines protect against two types of HPV that cause the majority of cervical cancer, it doesn't protect against all types. Pap smears detect infections from those other HPV types.

Is the HPV vaccine safe?

Yes. Both vaccines were tested in tens of thousands of people and serious reactions were very rare. The vaccines are continually monitored for side effects and the reports show that the vaccines are safe. The most common complaint is that the vaccine stings. Soreness and swelling where the shot was given are also common complaints.

Fainting and dizziness sometimes occurs in adolescents with this vaccine. However, fainting is not uncommon among adolescents when they receive other shots.

Who should get the HPV vaccine?

To receive the full benefit of the vaccine, it should be given before sexual initiation; the Centers for Disease Control and Prevention (CDC) recommend it be given at age 11-12 years so that the series can be complete well before this occurs. For those who do not receive it at that time, it is also recommended for all females ages 13 through 26 years and for all males ages 13 through 21 years. In addition, men ages 22 through 26 who are at higher risk for HPV-related cancers (those who have compromised immune systems or who have sex with other men) should be vaccinated. Other men in this age group may choose to receive it.

Can I get free or low-cost HPV shots? Yes, if you don't have insurance or your insurance does not cover the cost of HPV vaccination, you may be able to find free or low-cost HPV shots.

- Talk to your doctor or clinic. If the person in need of vaccination is 18 years old or younger, he or she may be eligible for the Minnesota Vaccines for Children program. This program covers the cost of the vaccine; however, the parent may be asked to pay a vaccine administration fee. People 19 and older may qualify for state-funded HPV vaccine at select clinics. To find a participating clinic, visit [www.health.state.mn.us/divs/idepc/immunize/adultvax/clinicsearch.html](http://www.health.state.mn.us/divs/idepc/immunize/adultvax/clinicsearch.html). There may be administration fees for vaccines provided under this program as well.
- Contact one of the companies that make HPV vaccine. People over 18 may qualify for the Merck Patient Assistance Program (call 1-800-293-3881 or visit [www.merck.com/merckhelps/vaccines/home.html](http://www.merck.com/merckhelps/vaccines/home.html)) or the GlaxoSmithKline (GSK) Vaccines Access Program (call 1-877-822-2911 or visit [www.gsk-vap.com](http://www.gsk-vap.com)).
- Talk to your city or county health department. They may be able to offer free or low-cost HPV shots.

Where can I find more information about HPV?

- Minnesota Department of Health [www.health.state.mn.us/divs/idepc/dtopics/vpds/hpv/index.html](http://www.health.state.mn.us/divs/idepc/dtopics/vpds/hpv/index.html)
- Centers for Disease Control and Prevention (CDC): [www.cdc.gov/vaccines/vpd-vac/hpv/default.htm](http://www.cdc.gov/vaccines/vpd-vac/hpv/default.htm)
- Immunization Action Coalition: [www.immunize.org/HPV/](http://www.immunize.org/HPV/)
- The Children's Hospital of Philadelphia Vaccine Education Center: [www.prevent-hpv.com](http://www.prevent-hpv.com)