

Frequently Asked Questions for Health Care Providers Concerning Human Papillomavirus Vaccination

Why are human papillomavirus vaccines needed?

Human papillomavirus (HPV) vaccines are needed because they greatly reduce the occurrence of cervical cancer, vaginal cancer, vulvar cancer, and anal cancer. They also reduce the number of abnormal Pap test results. Approximately 79 million people in the United States have been infected with HPV, and 14 million new infections occur every year. Each year, there are approximately 11,000 cases of cervical cancer and more than 4,000 deaths; approximately 300,000 cases of genital warts and 7,000 cases of anal cancer; and more than 12,000 cases of HPV-associated oropharyngeal cancer. The vaccine's role in preventing oral cancer and anal cancer is even more important because there are no screening tests available (as there are for cervical cancer).

Who should get vaccinated?

Human papillomavirus vaccination is recommended for girls and boys aged 11–12 years. However, the vaccine can be given to children as young as 9 years. Females and males who were not vaccinated at the target age of 11–12 years can be vaccinated from age 13 years to 26 years. It is important to protect children from HPV before they are exposed. The Centers for Disease Control and Prevention (CDC) recommends that 11- and 12-year-old children receive the HPV vaccine because statistics show that one in three ninth graders and two in three 12th graders have engaged in sexual intercourse. Studies also have shown a more robust immune response when vaccinations are given at younger ages.

For whom should the vaccine be recommended?

Because most obstetrician–gynecologists do not see 11- and 12-year-old children, to whom should they recommend the vaccine? The HPV vaccine is recommended for all females 11–26 years of age, and the American College of Obstetricians and Gynecologists (ACOG) endorses this recommendation. The vaccination is most effective if given before exposure to HPV, but studies demonstrate effectiveness even if patients have initiated sexual activity—hence, obstetrician–gynecologists and other health care providers should discuss the vaccine with all patients through age 26 years. Additionally, obstetrician–gynecologists and other health care providers should counsel women to vaccinate their children at the targeted age range because the vaccine is most effective before the onset of sexual activity and produces a higher antibody response when given to children 11–12 years of age. Many parents think that the HPV vaccine is needed only for their daughters. Encourage parents to have their sons vaccinated in order to stop the spread of HPV and to prevent anal cancer, oropharyngeal cancer, and penile cancer.

Should HPV DNA testing be done before vaccination?

No. Even if a patient is tested for HPV and the results are positive, vaccination is still recommended because it is extremely unlikely that a patient has all vaccine-preventable HPV types.

Should I vaccinate a young woman if she previously had an abnormal Pap test result or history of genital warts?

Yes. Even if the patient has one or two HPV types, which caused the abnormal Pap test result or genital warts, studies have demonstrated that the patient is extremely unlikely to have been exposed to all HPV vaccine types, so the patient would benefit from vaccination.

How are the three available HPV vaccines (bivalent, quadrivalent, and 9-valent) different?

All three HPV vaccines protect against HPV 16 and HPV 18 (types that cause approximately 66% of cases of cervical cancer and most other cases of HPV-attributable cancer in the United States). The 9-valent vaccine targets five additional cancer-causing types of HPV (31, 33, 45, 52, and 58), which account for approximately 15% of cases of cervical cancer. The quadrivalent and 9-valent HPV vaccines also protect against HPV 6 and HPV 11, which cause genital warts.

(see reverse)

If a patient receives the quadrivalent HPV vaccine for the first dose, do I need to complete the series with the quadrivalent vaccine, or can I complete the series with the bivalent or 9-valent vaccine?

If health care providers do not know or do not have available the HPV vaccine product previously administered, or are in settings transitioning to 9-valent HPV vaccine, any available HPV vaccine product may be used to continue or complete the series for females for protection against HPV 16 and HPV 18. The 9-valent or quadrivalent HPV vaccine may be used to continue or complete the series for males.

Do the vaccines provide cross protection against other HPV types not in the vaccines?

There is evidence of some cross protection in all three vaccines to HPV types not included in these vaccines. However, the degree and duration of the cross protection is not known.

Will a booster dose be needed?

This is still under study, but all the available information suggests a booster dose is not necessary.

Are two doses of the HPV vaccine acceptable?

No. Although the World Health Organization recommends a two-dose schedule in girls younger than 15 years, ACOG and the Advisory Committee on Immunization Practices recommend the full three-dose schedule for all age groups.

Do I need to restart the series if a patient does not get the second or third dose on time?

No. Even if the time interval for the second or third dose is much longer than recommended, it is not necessary to restart the series. Just proceed with getting the next dose (whether it is the second or the third dose). Do strive to complete all three doses, even if the time between doses exceeds what is recommended.

Is the HPV vaccine recommended for pregnant women?

No. The HPV vaccines are not recommended for use in pregnancy. However, studies have shown that the vaccine causes no problems for the pregnant women or the infants born to women who got the HPV vaccine while pregnant. The vaccine contains no live virus particles and, therefore, is not infectious.

Can girls and boys who are positive for the human immunodeficiency virus (HIV) be vaccinated?

Yes. Studies show that the HPV vaccination is safe to administer to girls and boys who are HIV positive. The HPV vaccine is recommended for all HIV-positive girls just as it is for HIV-negative girls.

Are there any contraindications to being vaccinated?

Anyone who has ever had a life-threatening allergic reaction to any component of the HPV vaccine, or to a previous dose of HPV vaccine, should not get the vaccine. Obstetrician–gynecologists and other health care providers should assess patients for severe allergies, including an allergy to yeast. People with a moderate or severe illness should wait until their condition improves.

Are the HPV vaccines safe?

Many studies conducted in developing and developed countries have found all three vaccines to be safe and effective. The vaccine does not contain live viruses so it cannot cause an HPV infection. The HPV vaccines have been administered to millions of girls and women around the world without serious adverse effects. In the past 8 years since the vaccine was licensed, serious adverse effects have been exceedingly rare (less than 0.0003% of patients). Frequently reported nonserious adverse effects include headache, nausea, dizziness, pain and redness at the injection site, and low-grade fever. Studies have shown that the 9-valent HPV vaccine results in increased fever and pain and redness at the injection site. Obstetrician–gynecologists should counsel patients to expect discomfort after vaccination and that such discomfort is not a cause for concern. The HPV vaccine was licensed by the U.S. Food and Drug Administration in 2006, and the CDC continues to closely monitor the vaccine and its safety. For more safety information, please visit the CDC web site: www.cdc.gov/vaccinesafety/Vaccines/HPV/hpv_faqs.html.

RESOURCES

Effective messages for parents when talking about the HPV vaccine:
www.immunizationforwomen.org/hpv/providerfaqs.

For more information, visit CDC's web site on HPV vaccine resources for health care professionals:
<http://www.cdc.gov/hpv/hcp/>.

Please see ACOG's Immunization for Women web site for health care provider and patient resources:
www.immunizationforwomen.org.