Dear Alice,

I recently began hearing rumors about an HPV vaccine in the works. Do you know anything about the HPV vaccines being tested and when they might be available? Also, will the vaccines cure HPV or just prevent it? Thanks in advance.

Yours,

J

Answer

Dear J,

Those rumors are true! In 2006, the Food and Drug Administration (FDA) approved the first vaccine (of three) that protects against the four human papillomavirus (HPV) strains most associated with cervical cancer and genital warts. Two strains, HPV-6 and HPV-11, are responsible for approximately 90 percent of genital warts, while two others, HPV-16 and HPV-18, cause approximately 70 percent of cases of cervical cancer. The most recent vaccine not only protects against nine strains, but can also be administered to people aged nine through 45. Though these vaccines are a great tool in preventing HPV-related disease, keep in mind that they don’t cure HPV.

While there are three FDA-approved HPV vaccines on the market, only one is available for use in the US (the other two are still available for use worldwide). The 9vHPV, or Gardasil 9, vaccine is the only one currently on the market in the US. It was approved in 2014 and gives protection against the same four strains as the original vaccine (HPV-6, HPV-11, HPV-16, and HPV-18), as well as five additional HPV strains (HPV-31, HPV-33, HPV-45, HPV-52, and HPV-58). These five strains cause approximately 15 percent of cervical cancers. Additionally, this vaccine has the potential to prevent 90 percent of cervical, vulvar, vaginal, and anal cancers.

Though the age cutoff was previously 26 years old, the FDA has now approved the use of the vaccine up to the age of 45, regardless of the gender of the recipient. The vaccine is given as a series of injections over a period of time, and no serious side effects have been reported. To maximize its effectiveness, it’s recommended that the vaccine be administered prior to becoming
sexually active, so there’s less chance the person has already been exposed to the virus. With that being said, people may still receive the vaccines regardless of sexual activity, history of genital warts, an abnormal Pap test or HPV test, or precancerous cells within the genital area. The vaccines may protect against strains that haven’t already been acquired by those people. The Advisory Committee on Immunization Practices (ACIP) [2] offers these recommendations for vaccine administration:

- For those that initiate the vaccination before their 15th birthday, two doses of HPV is the recommended schedule, with the second shot given six to twelve months following the first.
- For those that initiate after their 15th birthday, three doses is recommended, with the second shot one to two months after the first shot, and the third shot six months after the first.
- For those who are considered immunocompromised, three doses is recommended.

As is common with new vaccines, it’s unclear at this point how long the protection will last, though ongoing studies aim to determine long-term efficacy of the vaccine. Researchers plan to follow up with young people who’ve been vaccinated up to ten years after completing the immunization series to determine their HPV status at that time.

Though these vaccines may prevent some diseases or conditions caused by certain strains of HPV, they don’t protect against other sexually transmitted infections (STIs). As such, it may be wise to consider using condoms or other barrier methods (such as dams) during sex to reduce the risk of STI transmission. Receiving the vaccine doesn’t mean there’s no longer a need for regular Pap tests [3] — even with the vaccine, it’s still possible to get some strains of HPV. Pap tests are a great tool for detecting pre-cancerous or cancerous changes in the cervix [4], and the early treatment for cervical cancer or pre-cancer can be very effective. If you’re interested in getting vaccinated, talk with your health care provider to learn more about your options. For more information about HPV and other STIs, check out the Go Ask Alice! Sexually Transmitted Infections [5] category in the Sexual & Reproductive Health [6] archives.

Alice!
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