Q&A

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Human Papillomavirus: What you should know

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In June 2006, a federal advisory committee to the Centers for Disease Control and Prevention (CDC) recommended a new vaccine to prevent human papillomavirus (HPV). The HPV vaccine is recommended for all girls between 11 and 12 years of age and is designed to prevent most cases of cervical cancer.

Q. What is human papillomavirus?

A. Human papillomavirus (HPV) is a virus that infects the genital area and lining of the cervix. There are many different types of papillomavirus. Some types of HPV infect the genital areas of men and women, causing warts. Genital warts may be unsightly, but they are generally not harmful. Other types of HPV cause cervical cancer.

Q. How common is HPV?

A. HPV is the most common sexually transmitted infection in the United States and around the world. More than half of sexually active people will be infected with HPV at some time in their lives. Twenty million Americans are currently infected with HPV and another 6 million become infected every year. Half of those newly infected with HPV are between 15 and 24 years of age.

Q. Is HPV dangerous?

A. Yes. Most of the time, HPV goes away on its own and doesn't cause any health problems. But sometimes HPV can linger and lead to cervical cancer. Every year in the U.S., approximately 10,000 women develop cervical cancer and 4,000 die from the disease. Cervical cancer is one of the most common cancers in women, killing about 300,000 every year worldwide.

Q. How do you get HPV? How can you avoid it?

A. HPV in the genital area is passed from one person to another through genital contact, most often during sex. The best way to avoid HPV infection is to abstain from any sexual activity. You can also lower your chance of getting HPV by having sex with only one person who isn't infected with HPV. But most people who have HPV don't know they have it, so it can be hard to avoid. Although condoms are recommended as a way of decreasing sexually transmitted infections, they don't offer complete protection against HPV.

Q. Can't I avoid cervical cancer by getting routine Pap tests?

A. Not always. Once, cervical cancer was the most common cause of U.S. cancer deaths. The Pap test changed that. HPV infection causes changes in the cervix that can result in cancer. The Pap test is performed by scraping cells from the cervix and examining them to see whether they show changes consistent with the early development of cancer (called precancerous changes). If these changes are detected, the doctor can perform surgery on the affected areas before cancer develops. Typically, the length of time from infection with HPV to development of cervical cancer is decades. So, although most HPV infections occur in teenagers and young adults, cervical cancer is more common in women during their 40s and 50s.

The Pap test is one of the most effective cancer screening tests and has dramatically reduced the incidence of cervical cancer in the U.S. But the test isn't entirely predictive of cancer, and not all women get tested as often as they should.

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Q. Is there a vaccine to prevent HPV?

A. Yes. In June 2006, a vaccine to prevent HPV was licensed by the Food and Drug Administration (FDA) and recommended by a federal advisory committee to the Centers for Disease Control and Prevention (CDC). Studies in about 21,000 girls and young women found the vaccine was 100 percent effective in preventing persistent infections caused by four severe types of HPV.

The vaccine is given as a series of three shots. The second shot is given two months after the first, and third shot is given six months after the first.

Q. Who should get the HPV vaccine?

A. The HPV vaccine is recommended for all girls between 11 and 12 years of age. The vaccine can be given to girls as young as 9 years of age. It is also recommended for all teenage and adult women between 13 and 26 years of age if they did not get the vaccine when they were younger.

Q. How is the HPV vaccine made?

A. The HPV vaccine is made using a protein from the surface of the virus. The vaccine protects against four types of HPV: types 6, 11, 16 and 18. Types 16 and 18 are responsible for about 70 percent of cervical cancers. Types 6 and 11 are responsible for about 90 percent of cases of anal and genital warts.

Q. Is the HPV vaccine safe?

A. Yes. Because the HPV vaccine is made using only a single protein from each type of the virus, it can't cause HPV and, therefore, can't cause cervical cancer. The most common side effect of the vaccine is redness and tenderness at the injection site. The vaccine may also cause a slight fever.

Q. Do young women who get the HPV vaccine still need to get Pap tests?

A. Yes. Because the HPV vaccine will protect only against HPV types that cause 70 percent of cervical cancers, women should continue to be screened with routine Pap tests.

Q. Do women who have received the HPV vaccine still need to worry about sexually transmitted infections?

A. Yes. The HPV vaccine does not prevent other sexually transmitted infections such as syphilis, gonorrhea, chlamydia or herpes. Also, the vaccine doesn't protect against all HPV types.

Q. Will the HPV vaccine ever be recommended for boys?

A. Probably. Even though boys don't get cervical cancer, the disease is transmitted through sexual contact. So it is likely that the CDC will eventually recommend it for boys, too. Since the initial studies of the HPV vaccine were performed in teenage girls and young women, there isn't much evidence that the vaccine works in boys. However, studies in boys are underway.

This information is provided by the Vaccine Education Center at The Children's Hospital of Philadelphia. The Center is an educational resource for parents and healthcare professionals and is composed of scientists, physicians, mothers and fathers who are devoted to the study and prevention of infectious diseases. The Vaccine Education Center is funded by endowed chairs from The Children's Hospital of Philadelphia and Kohl's Department Stores. The Center does not receive support from pharmaceutical companies.

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