

What You Should Know

Exploring the Link between HPV and Cancer



**Indiana Cancer
Consortium**

www.IndianaCancer.org

What is HPV?

The Human papillomavirus (HPV) is the most common sexually transmitted infection (STI). An STI is a virus that is spread through the skin-to-skin contact happens during sex. Most people who become infected with HPV do not know they have it. Certain types of HPV can cause cancer in men and women.

According to the Centers for Disease Control and Prevention (CDC), approximately 79 million Americans are currently infected with HPV, and about 14 million become newly infected each year. In most cases the virus goes away on its own and does not lead to any health problems; however, in some people, the virus can cause normal cells to change and become abnormal. Most of the time you cannot see or feel these cell changes.

Nearly all men and women will get at least one type of HPV at some point in their lives. There are more than 40 HPV types that cause infections in the genital areas, mouth and throat for both men and women.

There is no way to know which people infected with HPV will go on to develop cancer or other health problems. People with weakened immune systems, or people who smoke, may be less able to fight off HPV infection. Some conditions, like genital warts, can appear a few months after getting HPV. Others, such as cancer, can take years to develop after the initial infection. HPV infection does not show any symptoms until changes in cells are detected.

Other conditions related to HPV include:

- Genital warts
- Cervical, vaginal and vulvar cancer in women
- Penile cancer in men
- Anal and oropharyngeal (back of the throat, tonsils and mouth) cancers
- Recurrent respiratory papillomatosis (a rare condition where warty growths in the upper airway cause airway obstruction or voice changes).

The CDC estimates that 21,000 cancer cases could potentially be prevented each year with HPV vaccines.

Women age 30 and older are eligible for a screening HPV test to detect cervical cancer. These HPV tests are not recommended to screen men, adolescents, or women under the age of 30 years. Currently, there is no general HPV test or an approved test to find HPV in the mouth or throat.

How do I get HPV?

HPV is a virus that spreads through the skin-to-skin contact that happens during oral sex and genital-to-genital contact. The virus can be passed even when the infected partner has no signs or symptoms — even if years have passed since he or she had sexual contact with an infected person. It is also possible to get more than one type of HPV.

Can HPV be treated?

Currently, there is no treatment for the virus itself; however there is treatment for many of the health conditions HPV causes. It is important to diagnose HPV-related cancers early. An HPV test, which can find certain HPV types on a woman's cervix, may also be used with a Pap test for 30 years and older. Currently, there is no approved HPV screening test for men; however there are ways to treat the health

problems caused by HPV in men including genital warts and penile, anal and oropharyngeal (back of the throat, tonsils and mouth) cancers.

Can HPV be prevented?

The HPV vaccine is recommended for boys and girls ages 11-12. The vaccines offer protection against the most common types of HPV that can lead to cancer and other health conditions. Older teens and young adults through age 26 can also receive the vaccine if they did not receive it earlier in life. The HPV vaccine is given as a three-shot series over six months. Vaccines offer the best protection to girls and boys who receive all three vaccine doses before becoming sexually active. The vaccines are safe for use as young as age 9.

There are currently two HPV vaccines on the market (Cervarix and Gardasil). Gardasil is recommended for both boys and girls, and offers protection against four types of HPV. Two of the HPV types (6 and 11) in the vaccine cause 90 percent of all genital wart cases. The other two types (16 and 18) are responsible for a majority of cervical, anal and other genital cancers. Cervarix is only recommended for use in girls and offers protection against HPV types 16 and 18.

Practicing safer sex by using condoms may lower the risk of HPV infection. Condoms may also lower the risk of developing HPV-related diseases. This includes genital warts and cervical cancer. However, condoms are not 100 percent effective. HPV can infect areas that are not covered by a condom.

People can also lower their chances of getting HPV by being in a faithful relationship with one partner, limiting their number of sex partners, and being with a partner who has had no or few prior sex partners. But even people with only one lifetime sex partner can get HPV. And it may not be possible to determine if a partner who has been sexually active in the past is currently infected. Abstinence is the only sure way to avoid HPV.

Talk with your doctor

Having an open and honest conversation with your doctor about HPV and HPV-related conditions is very important. Your doctor can give you more information about HPV. They can help answer questions about how safer sex, and advise you about screenings such as a Pap test. In addition, your doctor can give you more information about HPV vaccination and whether it might be right for you.

If you are unsure of how to start a conversation with your doctor about HPV, consider these questions when meeting with your doctor:

1. What is HPV?
2. What health problems can HPV cause?
3. How is HPV spread, and how can I protect myself?
4. What does it mean to practice "safer sex?" How will it help protect me?
5. When should I have a Pap test and pelvic exam? What will happen during the exam?
6. What about vaccination?
7. What else do I need to know about protecting myself from HPV and other STIs?
8. How do I talk to my partner about HPV and safer sex?

HPV Vaccine FAQ

Why are HPV vaccines needed?

Certain human papillomavirus (HPV) types may cause cancer in addition to other health problems. HPV is a common virus that is easily spread by skin-to-skin contact during sexual

activity with another person. It is possible to have HPV without knowing it, so it is possible to unknowingly spread HPV to another person.

How common are the cancers caused by HPV?

HPV is the main cause of cervical cancer in women. According to the American Cancer Society, an estimated 12,340 cases of invasive cervical cancer were expected to be diagnosed in 2013. In addition, an estimated 4,030 cervical cancer related deaths were expected in 2013. In Indiana, during 2007-2011, there were 1,250 cases of cervical cancer diagnosed, and 423 cervical cancer related deaths. According to the CDC, there are about 21,000 HPV-associated cancers in the United States that may be prevented by vaccines each year.

Who should get HPV vaccine?

The CDC recommends that all 11 or 12 year old girls get vaccinated to protect against cervical cancer. Girls and young women ages 13 through 26 should get HPV vaccine if they have not received any or all doses when they were younger. In addition, the CDC recommends vaccination for all boys aged 11 or 12 years, and for males aged 13 through 26 years, who did not get any or all of the three recommended doses when they were younger. The vaccine is also recommended for gay and bisexual men and men with compromised immune systems (including HIV) through age 26, if they did not get fully vaccinated when they were younger.

Why is the HPV vaccine recommended at ages 11 or 12 years?

For the HPV vaccine to work best, it is very important for preteens to get all 3 doses (shots) long before any sexual activity with another person begins. It is possible to be infected with HPV the very first time they have sexual contact with another person. Also, the vaccine produces higher antibody that fights infection when given at this age compared to older ages.

Are the HPV vaccines safe and effective?

The United States Food and Drug Administration (FDA) has licensed both brands of the HPV vaccine as safe and effective. As with most vaccines, mild side effects are possible and include pain where the shot was given, fever, headache, and nausea. As with all vaccines, the CDC and the FDA continue to monitor the safety of these vaccines very carefully. These vaccine safety studies continue to show that HPV vaccines are safe.

Why aren't HPV vaccines recommended for people older than 26?

The vaccine was tested in thousands of people from 9 through 26 years old and found to be safe and effective for these ages.

Should pregnant women be vaccinated?

No, pregnant women are not included in the recommendations for HPV vaccines. Studies have not shown problems for babies born to women who got the HPV vaccine while they were pregnant, however a pregnant woman should not knowingly get any doses of the HPV vaccine until her pregnancy is completed.

What should a woman do if she realizes she received HPV vaccination while pregnant?

If a woman realizes that she got any shots of an HPV vaccine while pregnant, she should wait until after her pregnancy to finish the remaining HPV vaccine doses and work with her health care provider to report the vaccination to the appropriate pregnancy registry.

How much does the vaccine cost? Will HPV vaccination be covered by health insurance?

Health insurance plans are required to cover recommended vaccines; however, it is important to check with your insurance provider to see if all costs are covered before going to the doctor. The drug company price for either vaccine is about \$130 per dose. This cost does not include the cost of giving the shots or the doctor's charge.

How can my child get an HPV vaccine if I don't have insurance?

The Vaccines for Children (VFC) program helps families of eligible children who might not otherwise have access to vaccines by providing vaccines at no cost to doctors who serve eligible children. Children younger than 19 years of age are eligible for VFC vaccines if they are Medicaid-eligible, American Indian or Alaska Native, or have no health insurance.

"Underinsured" children who have health insurance that does not cover vaccination can receive VFC vaccines through Federally Qualified Health Centers or Rural Health Centers. Parents of uninsured or underinsured children who receive vaccines at no cost through the VFC Program should check with their health care providers about possible administration fees that might apply.

Patient Resources

- American Cancer Society - <http://www.cancer.org/cancer/cancercauses/othercarcinogens/infectiousagents/hpv/index>
- Centers for Disease Control and Prevention - <http://www.cdc.gov/hpv/>
 - Vaccines for Children Program - <http://www.cdc.gov/vaccines/programs/vfc/index.html>
- Cervical Cancer Free Coalition – Indiana - <http://www.cervicalcancerfreecoalition.org/partners/partner-states/indiana/>
- Cervical Cancer Free Coalition - <http://www.cervicalcancerfreecoalition.org>
- Find a Federally Qualified Health Center - http://findahealthcenter.hrsa.gov/Search_HCC.aspx
- Indiana Breast and Cervical Cancer Program - <http://www.in.gov/isdh/24967.htm>
- Indiana Cancer Consortium Breast and Cervical Cancer Screening Asset Map - <http://indianacancer.org/breast-cancer-screening-asset-map/>
- Kristen Forbes EVE Foundation - <http://www.kristeneve.org/home/>
- National Cancer Institute - <http://www.cancer.gov/cancertopics/factsheet/Risk/HPV>