



Cancer and the HPV Virus

Human papillomavirus (HPV) has been found to be associated with several types of cancer: cervical, vulvar, vaginal, penile, anal, and oropharyngeal (back of the throat, including the base of the tongue and tonsils). HPV is spread through skin-to-skin contact during sexual activity. You can have HPV for years and not know it. Each year, more than 21,000 HPV-associated cancers occur in women; cervical cancer is the most common. More than 12,000 HPV-associated cancers occur each year in men; oropharyngeal cancers are the most common. Now there are vaccines available to help prevent the two types of HPV that cause most cancers.

After40 is pleased to partner with the Indiana State Department of Health to provide this special section to tell you what you need to know about the disease, new cervical cancer screening guidelines and the HPV vaccine.



Presented by [Indiana State Department of Health](http://www.in.gov/health)

Q+A

with **Dr. Michael J. Callahan**,
St. Vincent Gynecologic Oncology

Q Please explain the differences between the two HPV vaccines.

A The two HPV vaccines Gardasil® and Cervarix® both immunize against two “high-risk” HPV types, 16 and 18, however, Gardasil® also targets HPV types 6 and 11, which may cause genital warts. Importantly, HPV types 16 and 18 account for approximately 70% of cervical cancers. Boys and men can only receive Gardasil®, however girls and women can receive either Gardasil® or Cervarix®. Each vaccine requires three doses to be fully effective.

Q Do HPV vaccines protect against anything other than cervical cancer?

A One of the HPV vaccines targets HPV types 6 and 11, which may cause genital warts. Also the HPV vaccines may protect against other HPV-related cancers and diseases.

Q Why should we vaccinate both boys and girls?

A HPV vaccination may be considered for both males and females. HPV is transmitted through skin-to-skin contact, including sexual intercourse. Therefore vaccination of both males and females may lead to a decrease in HPV-disease burden in the community at-large.

Q What types of cancers can affect both males and females with HPV?

A HPV-related cancers can affect both men and women include cervical cancer, vulvar cancer, vaginal cancer, anal cancer, penile cancer, and cancers of the oropharynx.

Q Why isn't the vaccine recommended beyond age 26?

A The majority of men and women over age 26 will have acquired HPV and thus vaccination beyond age 26 years of age may not as readily prevent HPV-related disease.

Q When should individuals get vaccinated?

A HPV vaccination is recommended for preteen girls and boys beginning at age 11 or 12 years. Girls and women can receive the vaccine beginning at age 11 until age 26. Boys and men can receive the vaccine from ages 11 to 21. Gay and bi-sexual men or those with compromised immune systems can become vaccinated until the age of 26.

Q Under what circumstances should women be tested for HPV along with their Pap smear?

A HPV testing may help to triage women who have a mildly abnormal Pap smear result. Also, HPV testing may be used in conjunction with the Pap smear to screen women age 30 and older. Finally, it is important to remember women who have been vaccinated against HPV should still adhere to Pap smear screening guidelines.



Dr. Callahan practices the full spectrum of gynecologic oncology, with special interests in gestational trophoblastic diseases, hereditary predisposition to gynecologic cancer, and the surgical and chemotherapeutic management of early and advanced uterine, cervical, vulvar, and ovarian cancers, including intraperitoneal chemotherapy.



DID YOU KNOW? HPV-RELATED CANCERS AFFECT MEN TOO.

48-year-old Kevin Knotts was leaving on vacation with his wife when he noticed a swollen lymph node in his neck. He decided that if it was still swollen when he returned, he would see a doctor. When he got back home he saw a friend who is an otolaryngologist. A needle biopsy of the lymph gland revealed a malignant tumor that the doctor said was probably HPV-related. He referred Kevin to a head and neck cancer specialist who suggested a PET scan to see if the cancer had spread and to locate the primary cancer site. Cancer was found in his left tonsil and the HPV-related diagnosis was confirmed. Kevin's tonsil was removed and after 35 radiation treatments and six chemotherapy sessions, his prognosis is good. He will be followed for five years and the PET scan will be repeated annually. Kevin's cancer specialist told him he is now the face of head and neck cancer: young, healthy people with HPV-related cancer. It's no longer a 65-year-old smoker's cancer. While Kevin does not have children, he is adamant that young people should have the HPV vaccine. "The first thing I did was make sure my brother had my niece and nephew immunized," he said.

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January is **National Cervical Health Awareness Month**

Each year in the U.S. about 12,000 women are diagnosed with cervical cancer according to the Social Health Association. Four thousand will die annually as a result of cervical cancer. It is the second most common type of cancer for women but it is also one of the most preventable. Cervical cancer can be prevented through screening and is highly treatable if detected early. Cervical cancer tends to occur in midlife. Half of the women diagnosed are between 35 and 55 years of age. It rarely affects women under 30.

January is National Cervical Cancer Health Awareness month, a time dedicated to raising awareness about cervical cancer screening, prevention and treatment.

Vaccinating our kids will reduce their likelihood of contracting HPV-related cancers.

No more annual Pap smear?

The American Cancer Society no longer recommends that women have a Pap test every year if they have no symptoms of cervical cancer.

The Pap test, named for its inventor Greek-born physician Georgios Papanikolaou, has significantly decreased deaths from cervical cancer since its implementation sixty years ago. Widespread use of this test by health care providers worldwide has led to the early detection and treatment of cervical cancer. Some estimate the U.S. death rate has decreased by as much as 70 percent. The Pap test is a simple process that collects cells from the opening of the cervix, which are then examined microscopically for the presence of abnormal cells. Today there is a second test, called the HPV test, that can be used to screen for cervical cancer. The HPV (human papilloma virus) test finds certain infections that can lead to cell changes and cancer.

The American Cancer Society's new cervical cancer screening guidelines are based on the fact that it takes ten to twenty years for cervical cancer to develop and overly frequent screening could lead to unneeded procedures.

THE LATEST RECOMMENDATIONS:

All women should begin cervical cancer screening at age 21.

Women between the ages of 21 and 29 should have a Pap test every three years. They should not be tested for HPV unless it is needed after an abnormal Pap test result.

Women between the ages of 30 and 65 should have both a Pap test and an HPV test every five years.

Women over age 65 who have had regular screenings with normal results should not be screened for cervical cancer. Women who have been diagnosed with cervical pre-cancer should continue to be screened.

Women who have had their uterus and cervix removed in a hysterectomy and have no history of cervical cancer or pre-cancer should not be screened.

Women who have had the HPV vaccine should still follow the screening recommendation for their age group.

Women who are at high risk for cervical cancer may need to be screened more often. Those at high risk might include those with HIV infection, organ transplant or exposure to the drug DES.

Discuss these new screening guidelines with your physician or health care provider on your next visit to determine the proper screening frequency for you.



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3 of 4 sexually active individuals 15-49, have had a genital HPV infection.

Cervical Cancer Facts

All women are at risk for cervical cancer but it occurs most often after age 30.

Smoking, having HIV, using birth control pills for more than five years or having given birth to three or more children increases your risk of cervical cancer.

Cervical cancer was once one of the most common causes of cancer deaths of women until widespread use of the Pap test.

Cervical cancer is the only gynecological cancer that has a screening test.

Cervical cancer occurs when abnormal cells on the cervix grow out of control.

Cervical cancer tends to occur in midlife. More than 20 percent

of cervical cancers are found in women over 65.

Symptoms of cervical cancer include abnormal bleeding from the vagina, bleeding when something comes in contact with your cervix, such as during sex or when inserting a diaphragm, pain during sex or a vaginal discharge tinged with blood.

Cervical cancer may be treated surgically, with chemotherapy, with radiation or with some combination of the three treatments.

When cervical cancer is found early it is highly treatable.

Lower your risk for cervical cancer by using condoms during sex and limiting your number of sexual partners.

HPV Facts

HPV is spread through skin-to-skin contact during sexual activity.

HPV can infect anyone who has ever had a sexual encounter.

HPV can be contracted from one partner and later be unknowingly transmitted to another partner.

HPV transmission can be reduced but not eliminated by condoms.

There are more than 100 types of HPV. The vaccines target the types that cause 70 percent of cervical cancers and genital warts.

20 million men and women in the U.S. are thought to have an active HPV infection at any given time.

Among those ages 15-49, three in four has had a genital HPV infection. Many never know it.

HPV can be found in about 99 percent of cervical cancers.

HPV is the most common sexually transmitted infection in the U.S.

By age 50, approximately 80 percent of women have been infected with some type of HPV.



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