



Human Papilloma Virus (HPV), Cancer, HPV Testing, and HPV Vaccines – Frequently Asked Questions

Human Papilloma Virus (HPV)

What are viruses?

Viruses are very small organisms – most cannot even be seen with a regular microscope. They cannot reproduce on their own. They must enter a living cell, which becomes the *host cell*, and “hijack” the cell’s machinery to make more viruses.

Viruses can enter the body through the mucous membranes, such as the nose, mouth, the lining of the eyes, or the genitals. They can also enter through the skin and any breaks in the skin. Once inside, they find their specific type of host cell to infect. For example, cold and flu viruses find and invade cells that line the respiratory tract (nose, sinuses, breathing tubes, and lungs). The human immunodeficiency virus (HIV) infects the T-cells and macrophages of the immune system. HPV infects *squamous epithelial cells* – the flat cells that cover the surface of the skin and mucous membranes.

What is HPV?

HPV is short for *human papilloma* (pap-uh-LO-muh) *virus*. HPVs are a group of more than 100 related viruses. Each HPV virus in the group is given a number, which is called an *HPV type*. HPVs are called papilloma viruses because some of the HPV types cause warts or *papillomas*, which are non-cancerous tumors.

The papilloma viruses are attracted to and are able to live only in squamous epithelial cells in the body. Squamous epithelial cells are thin, flat cells. They are found in the surface of the skin and in moist surfaces like the vagina, anus, cervix (the base of the

womb at the top of the vagina), vulva (around the outside of the vagina), head of the penis, mouth, throat, trachea (the main breathing tube), bronchi (smaller breathing tubes branching off the trachea), and lungs. HPVs will not grow in other parts of the body.

Of the more than 100 known strains of HPV, about 60 HPV types cause warts on skin, such as that of the arms, chest, hands, and feet. These are the common warts.

The other 40 HPV types are mucosal types of HPV. “Mucosal” refers to the body’s mucous membranes, or the moist surface layers that line organs and cavities of the body that open to the outside. For example, the vagina and anus have a moist top layer. The mucosal HPV types are also called the *genital* (or *anogenital*) type HPVs because they often affect the anal and genital area. The mucosal HPVs prefer the moist squamous cells found in this area. They do not grow in the skin.

Low-risk HPV types

Some types of genital HPV can cause cauliflower-shaped warts on or around the genitals and anus of both men and women. In women, warts may also appear on the cervix and vagina. This type of “genital wart” is called a *condyloma acuminatum* and is most often caused by HPV-6 or HPV-11. Because these genital warts very rarely grow into cancer, HPV-6 and HPV-11 are called “low-risk” viruses. These low-risk types can also cause *low-grade changes* in the cells of the cervix that do not develop into cancer.

High-risk HPV types

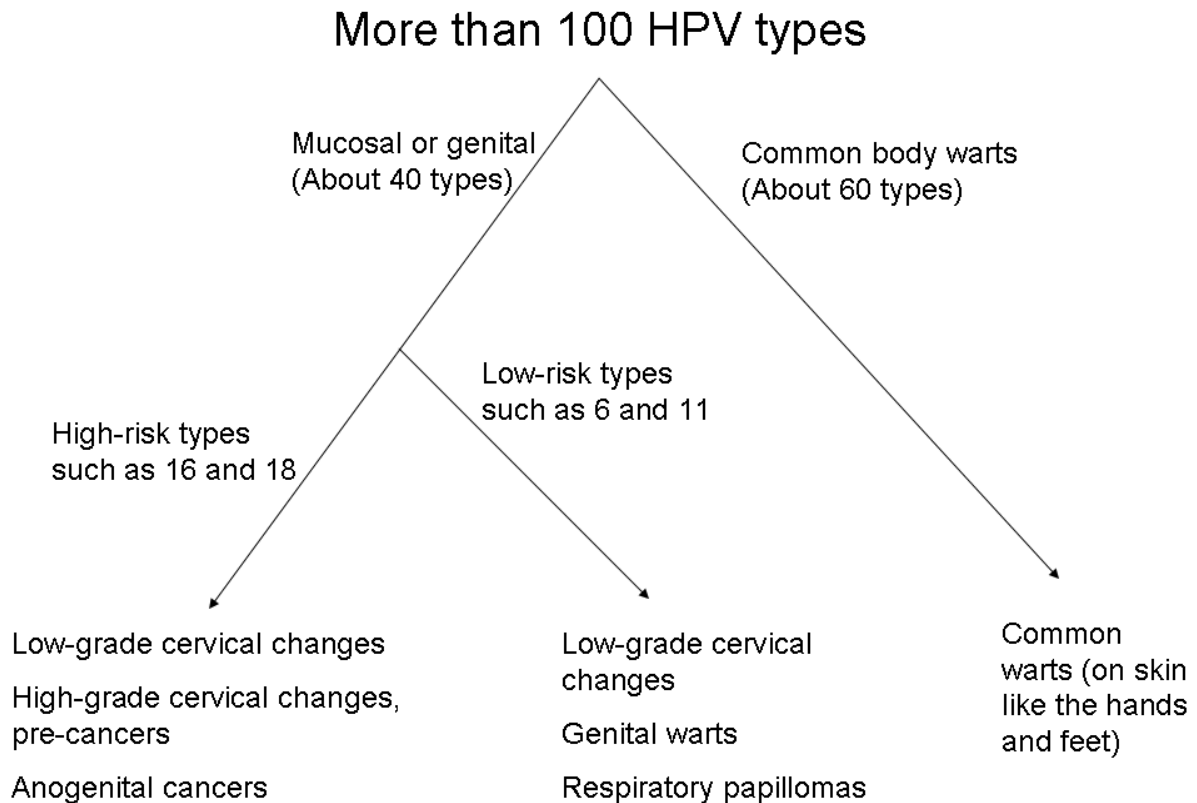
Other types of genital HPV have been linked with cancers in both men and women. These types are called “high-risk” because they can cause cancer. They also cause low-grade and high-grade changes in the cells of the cervix and pre-cancers. Doctors worry more about the high-grade changes and pre-cancers, because they are more likely to grow into cancers over time. Common high-risk HPV types include:

- HPV-16
- HPV-18
- HPV-31
- HPV-35
- HPV-39
- HPV-45
- HPV-51
- HPV-52
- HPV-58

Warts and cancer are caused by different types of HPV

In summary, low-risk HPV types can cause genital warts and low-grade changes in the cells, but rarely cause cancer. High-risk HPV types can cause low-grade changes, high-grade changes, pre-cancer, and cancer.

This diagram shows the different groups of HPV types and the problems each group can cause.



How do you get genital HPV?

Genital HPV is spread mainly by direct skin-to-skin contact during vaginal, oral, or anal sex. It's not spread through blood or body fluids. Infection is very common soon after a woman starts having sex with one or more partners.

Transmission by genital contact without sexual intercourse is not common, but it can occur. Oral-genital and hand-genital transmission of some genital HPV types is possible and has been reported. Transmission from mother to newborn during delivery is rare, but it can happen. When this occurs, it can cause warts in the infant's breathing tubes (trachea and bronchi) and lungs, which is called *respiratory papillomatosis*.

How common is HPV? Who gets it?

Genital HPV is a very common virus. Some doctors think it is almost as common as the cold virus. In the United States, over 6 million people (men and women) get an HPV infection every year.

Genital HPV is especially common among young people. A 2011 study reported that about 45% of women aged 20 to 24 had high-risk HPV. And among girls aged 14 to 19, about 25% had high-risk HPV. (There are no tests for HPV in men, but studies have found about 1 in 3 men (ages 18 and up) to be positive for the high-risk types of HPV.)

What are the symptoms of HPV?

Genital HPV usually has no symptoms, unless it's a type that causes genital warts. Genital warts may appear within weeks or months after contact with a partner who has HPV. More rarely, genital warts may show up years after exposure. The warts usually look like small bump or groups of bumps in the genital area. They can be small or large, raised or flat, or shaped like a cauliflower. If they are not treated, genital warts might go away, stay and not change, or increase in size or number. But warts very rarely turn into cancer.

Most people will never know they have HPV because they have no symptoms and their immune system inactivates the virus. In about 90% of people, the body's immune system clears the HPV infection within 2 years. This is true of both high-risk and low-risk HPV types. Sometimes HPV infections are not cleared. This can lead to cell changes that over many years may develop into cancer.

Can HPV be treated?

No. There is no treatment for the virus itself. But most genital HPV infections go away with the help of the body's immune system, usually within 2 years.

Even though HPV itself cannot be treated, the cell changes caused by an HPV infection can. For example, genital warts can be treated. Pre-cancer cell changes caused by HPV can be found by Pap tests and treated. And cervical, anal, and genital cancers can be treated, too.

Can HPV be prevented?

Completely avoiding contact of the areas of your body that can become infected with HPV (like the mouth, anus, and genitals) with those of another person may be the only way to truly prevent these areas from becoming infected with HPV. This means not having vaginal, oral, or anal sex, but it also means not allowing those areas to come in contact with someone else's skin.

For those who are young or haven't started having sex or have not yet been infected with HPV, getting the 3-shot HPV vaccine can protect them from some types of HPV. See the section called HPV vaccines for more on this.

Having fewer sex partners and avoiding sex with people who have had many other sex partners helps lower a person's risk of exposure to HPV.

Condoms can help prevent HPV, but HPV may be on skin that's not covered by the condom. And condoms must be used every time, from start to finish. The virus can spread during direct skin-to-skin contact before the condom is put on, and male condoms do not cover the entire genital area, especially in women. The female condom covers more of the vulva in women, but has not been studied as carefully for its ability to prevent HPV. Condoms are very helpful, though, in protecting against other infections that can be spread through sexual activity.

It's usually not possible to know who has HPV, and HPV is so common that even these measures do not guarantee that a person will not get it. Still, these measures may help reduce the number of times a person is exposed to HPV.

If you find out that you have HPV, you may want to let your partner know. Tell them that HPV is a very common virus and that most people who have sex will get HPV. Again, most people don't even know they have it. If they do, they usually do not know when they got it or from whom.

What are the risk factors for genital HPV?

The main risk factors for genital HPV are:

- Having many sex partners
- Being younger than 25 years of age
- Starting to have sex at an early age (16 years or younger)

But even women who have only had one sex partner can become infected with HPV. This is more likely for women who:

- Have a partner who has had many different sex partners
- Have a male partner who is uncircumcised male (Men who have **not** been circumcised are more likely to be infected with HPV and pass it on to their partners. The reasons for this are unclear.)

HPV can be picked up from having sex with an infected person at any age.

HPV and cancer

How is HPV related to cervical cancer?

The cervix is the lower part of the uterus (womb). The uterus is where a fetus grows. The cervix connects the body of the uterus to the vagina (birth canal). Changes in the cervix are often caused by infection with human papilloma virus (HPV). In fact, almost all –

more than 99% – cervical cancers are related to HPV. Of these, about 70% are caused by HPV types 16 or 18.

Low-grade changes in the cells of the cervix are caused by a number of HPV types. Low-grade changes most often go away without treatment, although if they grow into warts doctors may remove them. But low-grade changes may be caused by high-risk HPV types, too, not just low-risk ones, and doctors who find low-grade changes often do more testing.

Nearly all cervical cancers are related to HPV, but most genital HPV infections do not cause cervical cancer. In research studies, most people who test positive for genital HPV will later test negative, often within 6 to 12 months. Scientists are still not sure if this means that a person's immune system has completely destroyed all of the HPV or has only suppressed the infection to an extremely low level (too low to be detected by the tests). If even a few cells of the cervix still contain HPV, it's possible that the virus may become active again if your immune system becomes very weak.

Changes in the cells of the cervix may suddenly happen many years after being exposed to HPV. These changes may be low-grade or high-grade. This delay helps explain how a woman could have changes in the cells of the cervix after many years of normal Pap tests and no new sex partner.

If cervical cells stay infected with HPV, the virus may cause them to change and become pre-cancer cells. Possible pre-cancer cell changes seen on a Pap test are called ASC (atypical squamous cells) and *SIL* (squamous intraepithelial lesions).

ASC is divided into

- ASC-US (atypical squamous cells of uncertain significance), which has a low chance of being pre-cancer
and
- ASC-H (atypical squamous cells, cannot rule out a high grade lesion), which has a higher chance of being pre-cancer

If a Pap test shows ASC-US, the doctor may do a HPV test or just repeat the Pap test in 6 months.

If a Pap test shows ASC-H, a colposcopy will be done to check the cervix, and any abnormal areas will be biopsied.

If SIL is seen, a colposcopy will be done to check the cervix and any abnormal areas will be biopsied.

Pre-cancer on a biopsy is called *CIN* (cervical intraepithelial neoplasia).

Still, very few HPV infections lead to cervical cancer. Pre-cancer cells can be found before they have a chance to grow into cancer by having regular Pap and HPV tests.

For more information on cervical cancer, please see our document called *Cervical Cancer*.

What about other cancers and HPV?

About 9 out of 10 squamous cell anal cancers are caused by either HPV-16 or HPV-18 – the same types of genital HPV that cause most cases of cervical cancer. Nearly half of cancers of the vulva and about 7 out of 10 vaginal cancers are HPV-related. Some other genital cancers (cancers of the penis and urethra) and some head and neck cancers (mostly the throat and tonsils) are related to the high-risk types of HPV, too. Also, many of the skin cancers in people with weak immune systems contain the HPV virus.

Do men get HPV-related cancers?

Yes. HPV has been linked to certain kinds of head and neck cancers in both men and women. And some types of HPV have been linked to cancer of the penis and anus in men. Cancer of the penis is rare, but anal cancer is now almost as common in men and women who have anal sex as cervical cancer was in women before the Pap test was introduced. But even though anal sex greatly raises a person's risk of anal cancer, it's not the only way to get anal HPV or anal cancer.

Like women, men do not have symptoms with HPV unless they have a type that causes genital warts. In men, genital warts can appear around the anus or on the penis, scrotum, groin, or thighs.

At this time, there is no test approved to detect HPV in men. But genital warts can be found and treated.

While women have the Pap test to detect early HPV-related cervical cancers, there are no approved tests to detect early anal cancers in men or women. Anal cancer screening tests are being studied in some people at high risk for anal cancer, such as those who are gay or bisexual and those with HIV infection. To date, no such test has proven to work well enough to recommend routine use.

What about other HPV-related diseases?

About 1 out of every 100 sexually active adults in the United States have genital warts at any one time. Most of these cases are caused by HPV-6 or HPV-11.

Recurrent respiratory papillomatosis (RRP) causes warts to grow in the breathing tubes (trachea and bronchi) and lungs. It's very rare, but can happen when a pregnant woman with genital HPV passes HPV to her baby during delivery. RRP occurs in less than 2,000 infants and children in the US every year. It may lead to breathing problems, a hoarse voice, or may rarely progress to cancer of the larynx. It is most often linked with HPV types 6 and 11.

Testing for HPV

What is the difference between a Pap test and an HPV test?

A Pap test is used to find cell changes or abnormal cells in the cervix. (These abnormal cells may be pre-cancer or cancer, but they may also be other things.) Cells from the cervix are removed and processed, and then looked at under a microscope to see if the cells are normal or if changes can be seen. The Pap test is a very good test for finding cancer cells and cells that might become cancer.

HPV is a virus that can cause cell changes in the cervix. The HPV test checks for HPV. The test can be done at the same time as the Pap test, with the same swab or a second swab. You will not notice a difference in your exam if you have both tests. A Pap test plus an HPV test (called “co-testing”) is the preferred way to find early cervical cancers or pre-cancers in women 30 and older.

Should you be tested for HPV?

If you are a woman age 30 or older, you should have an HPV test with your Pap test (co-testing) every 5 years until age 65. Talk to your doctor or nurse about co-testing. You also may want to ask about the cost and if your health insurance will cover it. It’s also OK to continue to have Pap tests alone every 3 years.

If you are under age 30

Women between ages 21 and 29 should have a Pap test every 3 years (at ages 21, 24, and 27). These women should *not* get the HPV test with the Pap test because HPV is so common in women these ages that it’s not helpful to test for it. But HPV testing may be used in this age group *after* an abnormal Pap test result.

The most common abnormal Pap test result seen is called ASC-US (“ask us”). ASC-US cells usually are not pre-cancer, but they are not quite normal either. If your doctor sees ASC-US cells in your Pap test result, one option is for him or her to order the HPV test to see if HPV is causing the cell changes. If HPV is found, you will need more tests.

In these cases the HPV test is used to help decide if further testing is needed. This is not the same as using the HPV test with the Pap test as part of your normal health visit.

What about testing men?

There is no FDA approved HPV test for men at this time.

If you test positive for HPV, what does it mean?

If you have HPV and an abnormal Pap test result, your doctor or nurse will explain what other tests you might need.

If you have HPV and a normal Pap test result, it means that you have the HPV virus, but no cell changes were seen on your Pap test. There are 2 options:

- You will most likely be tested with an HPV test and a Pap test again in 12 months.

In many cases, retesting in a year shows that the virus has gone away. In 9 out of 10 women, HPV either goes away or cannot be found within 1 to 2 years.

If the virus does go away (both tests are negative) you can go back to normal screening. If the virus is still there or changes are seen on the Pap test, you will need more testing.

- As another option, the doctor may suggest testing specifically for HPV-16 or both -16 and -18 (the 2 types that are most likely to cause cancer).

If testing shows that you have HPV-16 and/or -18, more testing will be needed. If this testing is negative, you should be retested in 12 months with both an HPV test and a Pap test.

It's usually not possible to know when a person got HPV or who gave it to them. HPV may be found right away or not until many years later. Most men and women with HPV do not know they have it.

If HPV goes away, can you get it again?

There are many types of HPV. You may have one type that goes away, but you can get another different type. It's possible to get the same type again, but the risk of this is low.

If you test positive for HPV, what are your chances of getting cervical cancer?

Most women who have HPV and a normal Pap test have a very low chance of developing pre-cancer cells that need to be treated within the next year. (About a 4% chance, or 4 in 100 of these women may need treatment for cell changes.) Their chance of getting cervical cancer is even lower than that.

Most of these women (who have HPV and a normal Pap test result) will no longer have HPV when retested 6 months later (about 60% or 60 out of 100). And many more will not have HPV after 12 or 18 months.

Will HPV affect my pregnancy or my baby?

HPV does not directly affect the chances of getting pregnant.

If HPV leads to cervical changes that need to be treated, the treatment should not affect your chances of getting pregnant. But if you have many treatments and biopsies, which can happen with more frequent screening, the risk of pre-term labor and low birth-weight babies can go up.

HPV is rarely passed from a mother to her baby. The rare cases where this has happened do not involve the types of HPV that can cause cancer.

Why should women over age 30 with normal test results change to co-testing every 5 years and start doing HPV testing? Is that safe?

Cell changes in the cervix happen very slowly. It usually takes more than 10 years for cell changes to become cancer. Pap tests have been done yearly in the past, but now we know that yearly Pap tests are not needed. In fact, if done yearly, they can lead to harm from unneeded treatment of cell changes that would never go on to cause cancer.

One of the benefits of adding testing for HPV is that women may not need a Pap test as often. Getting the Pap test and HPV test (called “co-testing”) every 5 years means fewer tests, follow-up visits, and treatments may be needed, while the same number or even slightly more cervical cancers are found. Women with normal Pap and HPV test results have almost no chance of getting cervical cancer within at least 5 years. There is no added safety to co-testing more often than every 5 years.

Co-testing is preferred, but it is also OK to continue to have the Pap test alone every 3 years.

HPV vaccines

Is there a vaccine to help prevent HPV?

Yes. At this time there are 2 vaccines available to help prevent certain types of HPV and some of the cancers linked to those types: Gardasil[®] and Cervarix[®]. These vaccines prevent the 2 types of HPV (HPV-16 and HPV-18) that cause 70% of all cervical cancers.

Gardasil also protects against the 2 types of HPV (HPV-6 and HPV-11) that cause 90% of all genital warts.

Cervarix may also provide some protection against some high-risk types of HPV besides 16 and 18.

Did the American Cancer Society play a role in the development of the HPV vaccines?

Yes. Dr. Robert Rose at the University of Rochester was a member of 1 of 4 teams that contributed to the development of a vaccine against HPV. The grant he received from the American Cancer Society in the mid-1990s enabled him to continue and confirm his important work studying the virus.

Are the HPV vaccines safe?

The FDA reports that both HPV vaccines, Gardasil (approved in 2006) and Cervarix (approved in 2009), are safe for females ages 9 to 26 years.

As of 2009, Gardasil is also licensed, and considered safe for males ages 9 through 26 years. Boys and young men may choose to get this vaccine to prevent anal cancer and genital warts.

Both vaccines were tested in thousands of people around the world before they were approved. These studies showed no serious side effects and no deaths have been linked to either vaccine. Common, mild side effects include pain where the shot was given, fever, headache, and nausea.

People may faint after getting any vaccine, including HPV vaccines. Fainting after getting a shot is more common in teens than in young children or adults. To keep people from getting hurt from fainting, a 15-minute waiting period for people of all ages is recommended after any vaccination.

Both HPV vaccines are still being monitored for side effects, especially rare ones not seen in the study trials. CDC and FDA doctors and scientists still review all reports of serious side effects reported to the Vaccine Adverse Event Reporting System (VAERS) to watch for potential new vaccine safety concerns that may need further study. (The VAERS is a national reporting system that looks at reports of side effects after vaccinations.) The American Cancer Society will watch those reviews and report any concerns about the safety of the vaccines.

Who should be vaccinated and when?

To work best, one of the HPV vaccines should be given before any type of sexual contact with another person. Both are given as shots in a series of 3 doses within 6 months.

The American Cancer Society's recommendations for each age group

Girls ages 11 to 12

The vaccine should be given to girls ages 11 to 12 and as early as age 9.

Girls ages 13 to 18

Girls ages 13 to 18 who have not yet started a vaccine series or who have started but have not completed the series should be vaccinated.

Young women ages 19 to 26

Some authorities recommend vaccination of women ages 19 to 26, but the American Cancer Society feels that there is not enough evidence of benefit to recommend vaccinating all women in this age group. We do recommend that women ages 19 to 26 talk to their doctor or nurse about whether to get the vaccine based on their risk of previous HPV exposure and potential benefit from the vaccine.

Boys and young men

The American Cancer Society has no recommendation regarding the use of HPV vaccines in males. See the question “Can boys get the vaccine?”

Why do the vaccines have to be given at such a young age?

These vaccines will prevent HPV only if they are given before exposure to the virus. According to a national survey:

- 1 out of every 4 girls in the United States is sexually active by age 15, and 8 out of every 10 girls are sexually active by age 18.
- 7% of high school students said they started having sex before age 13.

The vaccines are recommended for girls ages 11 to 12 because most girls at this age have not become sexually active. If they have been sexually active, they will likely have been exposed to only 1 or 2 types, so the vaccine will be partially protective. This is also an age when girls will be seeing their doctor and getting other vaccinations.

How long will the vaccines prevent HPV infection?

How long a new vaccine protects people is never known when the vaccine is first introduced. Research is being done to find out how long protection against HPV will last, and if booster vaccines will be needed.

What about women over 26 years of age? Should they get one of the vaccines?

Women over 26 years of age were not included in the first studies that were done to test the vaccines. This means the FDA could not approve the vaccines for this age group. Since that time, the use of Gardasil in women between 27 and 45 years of age has been studied. One study showed that in these women, the vaccine helped protect against infection and disease from the HPV types contained in the vaccine. As was seen in other studies, it only helped the women who weren't infected with those HPV types before vaccination. But because the risk of infection and disease from HPV is low in this age group, the vaccine didn't seem to benefit many women. When the FDA reviewed the data, it concluded that the vaccine didn't help enough women to justify giving it to all women up to age 45.

Are there some girls or women who should not get one of the HPV vaccines or who should wait?

Yes. Anyone with a severe allergy to latex should not get the Cervarix vaccine, and those with a severe allergy to yeast should not receive Gardasil. These vaccines should also not be given to anyone who has ever had a life-threatening allergic reaction to anything else contained in them, or anyone who has had a serious reaction to an earlier dose of HPV vaccine. Tell the doctor if the girl getting the vaccine has any severe allergies.

Pregnant women should not get either vaccine at this time. Even though they appear to be safe for both mother and the unborn baby, this still being studied. If a woman who is pregnant does get an HPV vaccine, this is not a reason to consider ending the pregnancy. Women who are breast-feeding may safely get either vaccine.

Any woman who finds out that she was pregnant when she got the vaccine is encouraged to call the Gardasil vaccine in pregnancy registry at 1-800-986-8999 or the Cervarix vaccine in pregnancy registry at 1-888-452-9622. Information from these registries will help doctors and scientists learn how pregnant women respond to the vaccines. Pregnant women who have started a vaccine series should complete the series after their baby is born.

Can boys get the vaccine?

Yes. The FDA approved Gardasil to protect boys from anal cancers and pre-cancers as well as to prevent anal and genital warts. As with females, this vaccine is best given before sexual activity begins, but is approved for ages 9 to 26. It's not yet known if the vaccine will keep boys from passing HPV to their partners, which would also reduce cervical cancer, or if it can prevent other HPV-linked cancers in men (such as throat or penile cancer).

In 2011, the Advisory Committee on Immunization Practices (ACIP) of the Centers for Disease Control and Prevention recommended that boys and young men receive this vaccine routinely. The committee recommended that boys ages 11 and 12 should be vaccinated. It also recommended vaccination of males ages 13 through 21 who had not already had all 3 shots. Vaccinations may also be given to boys as young as 9 and to men between the ages of 22 and 26.

The American Cancer Society has no recommendation about the use of either HPV vaccine in males at this time. But the Society is reviewing the recent data about the use of HPV vaccines in males and considering an update of its guidelines.

What are the benefits of the vaccines?

Both vaccines will prevent the 2 types of HPV that cause most cervical cancers (HPV types 16 and 18). Gardasil has also been shown to prevent anal, vulvar, and vaginal cancers related to these 2 types of HPV. It also protects against the 2 types of HPV that cause most genital warts (HPV types 6 and 11).

The vaccines only work in people who have not already been exposed to these types of HPV. The vaccines will not prevent HPV in those who have already had these HPV types.

It is possible that the vaccines also could prevent some other HPV-related cancers, including some cancers of the penis and head and neck areas. It will be some time before studies can prove whether they will prevent these cancers.

How much do the HPV vaccines cost? Are they covered by health insurance plans?

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. So, it's possible that the cost for the series (3 shots over 6 months) could be \$500 or more. Insurance plans will likely cover the cost. But check with your insurance plan to be sure.

The vaccines are included in the federal Vaccines for Children (VFC) program. This program covers vaccine costs for children and teens who don't have insurance and for some children and teens who are underinsured. The VFC program provides free vaccines to children and teens younger than 19 years of age, who are either Medicaid-eligible, American Indian or Alaska Native, or uninsured.

There are over 44,000 sites that provide VFC vaccines, including hospitals and private and public clinics. The VFC program also allows children and teens to get VFC vaccines through federally qualified health centers or rural health centers if their private health insurance does not cover vaccinations. For more information about the VFC program, visit www.cdc.gov/vaccines/programs/vfc/default.htm. Or call 1-800-CDC-INFO (1-800-232-4636).

Some states and US territories have programs that will cover the vaccine costs, too. You can find the contact information for your area at the CDC Web site given above.

Do you need to be tested for HPV before getting the vaccine?

No. Testing is not needed and it's not recommended. A positive HPV test result does not tell you which types of HPV are present. Even after infection with one type of HPV, the vaccine could still prevent other types of HPV infection. A negative test does not tell you if you have had HPV in the past but no longer have it.

Do women and girls who have been vaccinated still need Pap tests?

Yes. Females who get vaccinated will still need Pap tests because the vaccines do not prevent all types of HPV that can cause cervical cancer. If your daughter or granddaughter gets the vaccine, she will still need to have Pap tests at the usual times.

If girls who are vaccinated will still need a Pap test, why should they get vaccinated?

The vaccines can prevent about 70% of cervical cancers. And those who have had an HPV vaccine can avoid the cervix cell changes caused by the HPV types the vaccine prevents.

The Pap test does not keep the cells in the cervix from changing – but it can find changes in the cells before they become cervical cancer. This means that if a woman has an abnormal Pap test, she will have other tests and then treatment to keep the changed cells from becoming cancer.

Can cervical cancer be prevented without a vaccine?

In most cases, yes, cervical cancer can be prevented even without a vaccine. Cervical cancer screening done according to American Cancer Society guidelines and with proper follow up will prevent most but not all cases of cervical cancer. Pap tests (with or without the HPV test) can find cervix cell changes early, before they become cervical cancer. These changed cervix cells can then be treated to keep them from becoming cancer.

When cancer screening guidelines are followed most, but not all cervical cancers are found at an early, curable stage. Most cervical cancers in the United States are diagnosed in women who have never had a Pap test, or who haven't had a Pap test in many years.

Is the American Cancer Society in favor of vaccinating against HPV?

Yes. The Society has been actively involved in providing reliable and unbiased information to the public and to health care providers. The Society emphasizes the ongoing need to follow screening guidelines, such as getting regular Pap tests and HPV tests, and the critical need to ensure that the vaccines are available to the medically underserved.

Do you want more information?

For more information on cervical cancer, HPV, HPV testing, and the HPV vaccines, call us any time, day or night, at 1-800-227-2345 or visit our Web site at www.cancer.org.

For more information on the HPV vaccines from the Centers for Disease Control (CDC), visit www.cdc.gov/vaccines/vpd-vac/hpv/default.htm.

The US Food and Drug Administration (FDA) has more information on Gardasil and Cervarix online at:

www.fda.gov/BiologicsBloodVaccines/Vaccines/ApprovedProducts/ucm172678.htm

For more information on sexually transmitted illnesses, please contact the American Social Health Association (ASHA) at www.ashastd.org. You can get information on teen sexual health in English at www.iwannaknow.org or in Spanish at www.quierosaber.org.

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