

# How many types of HPV are there?

There are more than 100 types of HPV. They usually don't cause any problems. However, when they do, the most frequent effect is the common wart, such as those found on the hands and feet.

About 30 HPV types are spread through genital contact. Each is "named" with a number, in the order of their discovery. In addition, they are divided into two groups:

## "Low-risk" types of HPV

There are about 12 types of HPV that are called "low risk" because they cannot cause cervical cancer. They can, however, cause genital warts or very minor cell changes on the cervix. These low-risk types of HPV are known by the numbers 6, 11, 40, 42, 43, 44, 53, 54, 61, 72, 73 and 81. Types 6 and 11 – which are linked to about 90 percent of genital warts – are the most common.

#### "High-risk" types of HPV

There are more than a dozen types of "high-risk" HPV that can cause abnormal cells to form on the cervix. These abnormal cell changes may gradually develop into cervical cancer if not removed. The 13 types of high-risk HPV that are of most concern are known by the numbers 16, 18, 31, 33, 35, 39, 45, 51, 52, 56, 58, 59 and 68. Types 16 and 18 are the most dangerous, since they cause about 70 percent of cervical cancers. In one study, the National Cancer Institute found that about 10 percent of women with HPV type 16 or 18 developed advanced, pre-cancerous cervical disease (CIN 3) within three years (compared to just 4 percent of women with any type of HPV), and 20 percent did so in 10 years (compared to 7 percent).

# What types does the HPV vaccine protect against?

The HPV vaccine developed by Merck, is designed to protect against HPV types 16 and 18 – which cause about 70 percent of cervical cancers. In addition, it protects against the two most common that cause genital warts – 6 and 11.

#### What is HPV?

The human papilloma (pronounced "pap-ah-LO-mah") virus, also called HPV, is a common virus that infects the skin and mucous membranes. There are more than 100 types of HPV.

The types of HPV that cause common warts, such as those found on the hands and feet, are spread through skin-to-skin contact. In addition, it is also possible to get these common types of warts after sharing towels or other objects with a person who has warts.

About 30 types of HPV are spread only through direct genital contact. These "genital" types of HPV are either: 1) "high-risk" – which means they can cause certain kinds of cancer (most commonly, cervical cancer) if the infection persists, or 2) "low-risk" – which means they are not associated with cancer, but can cause genital warts. Unless you develop one of these problems, the only way to know whether you have HPV is by being tested.

# How common is "genital HPV"?

The Centers for Disease Control and Prevention (CDC) has reported that as many as 80 percent of women – and 50 percent of men and women combined – will get a type of genital HPV at some point in their lives. However, most of those infections go away or are suppressed by the body within one to two years, without causing any problems that require treatment.

Genital HPV infections are very common, affecting up to 80 percent of women by the age of 50.

HPV by itself is not a disease. Most infections go away or are suppressed by the body, without causing any symptoms or health effects.

There is no treatment for HPV itself, only for abnormal cells that may form if an infection becomes long-lasting. There is currently no HPV test for men, and it is impossible to know from whom you got the infection or when.

## Do men get HPV too?

Men get HPV just like women do. As with women, men usually have no symptoms, unless the HPV virus begins to cause abnormal changes in skin cells. However, although HPV infection has been linked to cancer of the penis and anus, these cancers are very rare in men. For this reason, as well as because a good, reliable way to collect a sample of male genital skin cells that would allow detection of HPV has yet to be discovered, there is currently no FDA-approved HPV test for men.

# How do you know if you have HPV? Does HPV cause any symptoms?

Most commonly, genital types of HPV do not cause any symptoms at all. Usually, the infection goes away or is suppressed by the body before any problems develop. However, sometimes the infection persists, causing abnormal cells to form. In the case of high-risk (potentially cancer-causing) types of HPV, the only way to know you have the virus before cervical cancer develops is to be screened using both a Pap and (if you are 30 or over) the HPV test. By catching persistent infections while they are still relatively early in their development, abnormal cells can be detected and removed before they become cancerous. That is why periodic testing for HPV is so important.

#### Can HPV be treated?

Antibiotics or other currently available medicines cannot treat HPV infection. Luckily, the virus usually goes away or is suppressed by the body to a low level without causing any problems. However, if the infection persists, treatment is available only for the abnormal cells that form as a result. For example, genital warts can be treated with gels, creams, lasers or other technologies. Likewise, pre-cancerous cells on the cervix can be removed using surgical procedures such as LEEP (a technique that uses electrical energy) or laser therapy. When invasive cervical cancer already has developed, hysterectomy and chemotherapy usually are needed.

Since no treatment is available for the infection itself, the most effective method of avoiding complications is early detection and treatment of abnormal cells before they become cancerous. That is why it is so critical to get regular screening with a Pap smear and – once a woman is 30 or over – the HPV test. Younger women are very likely to get HPV, but it is rare for women in this age group to develop cervical cancer. Once over the age of 30, HPV infections are less common, but they are more likely to have been present for a long time and thus to cause in abnormal cells. With early treatment of pre-cancerous cells, cervical cancer can be prevented before it has a chance to develop.

## Can HPV cause any other kinds of cancer besides cervical cancer

Cervical cancer (which the American Cancer Society says affected an estimated 11,150 women in 2007) is by far the most significant concern. However, high-risk types of HPV also have been linked to less-common cancers of the vulva (3,490 women), vagina (2,140 women), anus (2,750 women and 1,900 men) and penis (1,280 men).

Some research also has suggested a link between high-risk types of HPV and other cancers, such as oral (mouth and throat)

cancer. However, these other HPV-related cancers are still being investigated and are thought to be relatively rare.

## Does HPV interfere with a woman's ability to get pregnant?

Having HPV does not interfere with a woman's ability to become pregnant. For more information, visit our discussion of reproductive health.

## Can a mother with HPV pass the virus to her child?

The Centers for Disease Control and Prevention (CDC) says it's possible for the HPV virus to be passed from mother to child during birth, but it is "rare." In fact, the agency estimates this occurs in no more than 1.1 cases per 100,000 children. In these extremely infrequent cases, the HPV infection is found in the infant's respiratory tract, which can lead to wart-like growths – most commonly, on the larynx. Early diagnosis and care are key

