

## The Scoop on the Human Papilloma Virus

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In June of last year, the Food and Drug Administration or FDA, approved a vaccine that can prevent the transmission of a virus responsible for over 70% of all cervical cancers. The virus is called human papilloma virus or HPV and it is one of the most common sexually transmitted infections, or STIs, in the United States. Unfortunately, the vaccine, called Gardasil, works best in women who have not been exposed to HPV.

Human Papilloma Virus (HPV) is a virus that causes over 99% of all cervical cancers. There are about 30 different strains of HPV that can produce damage to a woman's cervix and genital area. However, not all the strains cause cervical cancer-only about one-third. The cervix is the area where the cells from the vagina meet the cells from the uterus. It is the opening to the uterus; the organ that houses the fetus while the woman is pregnant. Every month those women who are menstruating, loose or shed the lining of their uterus in the form of a period. When a woman has a pap smear, the clinician takes a sampling of the cells from her cervix. It is sent to a lab where the slide is read by a cytologist. It tells the provider whether there is damage from the human papilloma virus. Women may be told that they have "abnormal" or "atypical" cells and need a colposcopy. Since a pap smear is just that, a smear or a sampling of superficial cells from the cervix, it is never a diagnosis. A colposcopy is the next step. A colposcopy is nothing more than looking at the cervix with a pair of binoculars on a stand. That magnifies the cells and allows the clinician to see if there are any abnormal areas. If so, a biopsy is taken and sent to the lab for a diagnosis. Depending on the location and severity of the report, the woman may need the abnormal cells removed, or if "low grade," she will need to be followed closely. There is no cure for HPV, but it can be managed. That is why women need pap smears.

Men carry HPV and can pass it on to their female partners. Most do not know that they have it. Many years ago, doctors thought that if women with HPV get cervical cancer, then men must be at risk for cancer of the penis. Some men are, but those numbers are very small. However, researchers have noted a rise in the number of cases of anal cancer, particularly in men who have been anally receptive during sex. Numbers for women are also rising. As a result, some providers have started doing anal pap smears during annual exams. In most cases, HPV is responsible for cancer of the anal canal.

The Center for Disease Control (CDC) states that at least 50% of sexually active people will get genital HPV. Other studies project higher numbers such as 75%. Keep in mind that having HPV does not mean cervical cancer, just exposure to the virus. Not all strains of HPV cause cancer. Many are removed by the body's immune system soon after exposure. Some hang around for awhile, eventually leaving. It is the strains that stay and integrate themselves into our cells that cause problems.

In June 2006, the Food and Drug Administration (FDA) approved a vaccine, Gardasil, which can protect the recipient from four strains of the human papilloma virus (16, 18, 6 and 11). Two of the strains (16 and 18) are responsible for about 70% of all cervical cancers. The other two (6 and 11) strains cause 90% of all genital warts.

In order for the FDA to approve a vaccine, the research trial must show that their product is both safe for the participants as well as effective, that is: does it work? The vaccine was tested using females, ages 9 through 26. It proved to be successful. Therefore, that is the population for whom Gardasil was approved. It is a series of three injections. The side effects are mainly soreness at the site of injection and headache. To work best, the vaccine should be given to girls before they become sexually active.

If a female is already exposed to HPV, the vaccine will not protect them against that strain that they already carry. So, for now, young girls and young women are the only individuals eligible for the Gardasil vaccine. There are studies including men and “older women” currently going on, but we will have to wait for the results. Other drug companies are also working on vaccines.

If your doctor’s office does not carry the vaccine, the New York City Department of Health does in the immunization clinics. A call to 311 can direct you to the nearest immunization clinic.

Remember-condoms limit the transmission of HPV, but only if they are used every time and put on correctly. HPV has no symptoms; only if you have genital warts will you see it. Every woman who has ever been sexually active needs a pap smear. That is the only way that you can see if you have HPV.

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