

## Shands HealthCast – October 2009

### Human Papillomavirus

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#### **Intro:**

Welcome to another Shands HealthCast brought to you by Shands HealthCare. This podcast features a discussion about the human papillomavirus or HPV and the Gardasil vaccine. Dr. Kelly Best is an assistant professor of obstetrics and gynecology with the University of Florida College of Medicine-Jacksonville. Dr. Best sees patients at the UF Women’s Health Center at Shands Jacksonville. For more information about HPV or the Gardasil vaccine, please call (904) 244-9622 or visit [jax.shands.org](http://jax.shands.org).

#### **Dr. Best:**

The human papillomavirus or HPV is a common virus that infects the skin and mucus membranes. There are more than 100 human papillomavirus types. The types of HPV that cause common warts such as on the hands and feet are spread through skin-to-skin contact. About 30 types of HPV are spread through direct genital contact. HPV is an extremely common virus. The Centers for Disease Control and Prevention has reported that as many as 80 percent of women and 50 percent of men and women combined will be exposed to a type of genital HPV at some point in their lives. Most of these infections will go away or are suppressed by the body within one to two years.

Genital HPV is contracted or spread from person-to-person through sexual activity or intimate skin to skin contact. HPV is not spread by breathing the air, touching objects such as door knobs or by shaking hands. Condoms do provide some protection, however they cannot prevent infection completely because they do not cover all of the genital areas. It is important to know that having more than one sexual partner increases the risk of exposure and infection with the HPV virus. It is possible to get the virus from just one person. Additionally, HPV can remain dormant or inactive for long periods of time in the body and therefore it is impossible to determine exactly when or from whom you acquired the HPV infection.

HPV is spread through sexual activity and can infect both men and women. Any sexually active person is at risk for HPV infections. It is possible to contract HPV through genital to genital contact, finger to genital contact or finger to anal contact. At this time it is unknown whether HPV can be transmitted through oral sex. Currently the American College of Obstetricians and Gynecologists considers the spread of HPV through the oral route to be rare. Most commonly, genital types of HPV do not cause any symptoms at all. Usually the infection is suppressed by the body before any problems develop. Sometimes the infection persists causing abnormal cells to form.

There are more than 100 types of HPV. One subgroup, called the low risk subgroup, is the main cause of genital warts. These growths are usually soft, moist and flesh-colored and can often appear alone or in clusters on the vulva, vagina, cervix, anus or penis. Another subgroup of HPV called high risk, causes abnormal or precancerous cell to form on the cervix in women. These changes may gradually develop over time into cervical cancer if not treated.

Dysplasia is a medical term used to describe the abnormal cells that could develop into cervical cancer. Depending on the extent of the abnormal cells present, dysplasia is classified by healthcare professionals as mild, moderate or severe. Symptoms of low-risk HPV or genital warts can resolve without treatment or can be treated using medication applied directly to the affected area, cryotherapy (a technique where the wart is gently frozen), or in the operating room using a laser.

Symptoms of high-risk HPV, the virus that is implicated in the majority of cervical cancer cases, are monitored and treated based upon the extent of the abnormality found on a pap smear. Symptoms of high-risk HPV or dysplasia usually do not produce any symptoms and therefore it is critical to screen for dysplasia using routine cervical cancer screening techniques. Many healthcare professionals at Shands Jacksonville offer routine cervical cancer screening using the pap smear and the HPV test. If a woman's pap smear is clearly abnormal or testing shows that she has an HPV infection that isn't resolving over time, your healthcare provider at Shands Jacksonville may perform an exam called a colposcopy to look at the cervix more closely. Often a small biopsy is taken from the cervix to help confirm whether dysplasia is present and whether it requires treatment.

If your healthcare provider determines that treatment is required, there are several options available. Ablative treatments include laser and cryotherapy while excisional techniques include LEEP and cold-knife conization. Your doctor or healthcare provider will discuss which technique is best suited for your situation.

A vaccine designed to protect against the most common types of HPV that cause cervical cancer and genital warts is currently available. The first vaccine called Gardasil was approved by the US Food and Drug Administration in June 2006. Another vaccine called Cervarix is currently in development. Gardasil protects against the two types of HPV that causes most cervical cancers as well as the two types that cause most genital warts. The vaccine has not been proven to be effective against HPV infections that already exist due to previous sexual contact. It is critical for all women, despite their vaccination status, to continue routine cervical cancer screening.

Gardasil is given in a series of three shots and over a six month period and is available for many pediatricians, gynecologists and family physicians in the Shands Jacksonville system. To receive the full benefit of the vaccine, all three shots must be given. Gardasil has been approved by the FDA for use in women and girls age 9-26 but have not been approved for use while pregnant. Ideally, vaccination should occur prior to the onset of sexual activity, in other words, an ideal time to get the vaccine is during adolescence.

I am often asked by patients, "Can I still get cervical cancer and genital warts after being vaccinated?" The answer to that question is yes due to the fact that although the vaccine protects against the four most common types of HPV, it cannot protect against all types of HPV. It is critical to use safer sex practices and to continue routine cervical cancer screenings.

You can protect yourself from HPV infections in many ways by limiting the number of sexual partners, using condoms to decrease skin-to-skin contact, don't smoke as smoking prevents your body's immune system from working efficiently to clear the HPV infection, and use a folic acid supplement. As recent

data suggests, this type of B vitamin can protect against new HPV infection or persistent HPV infections. And finally, get vaccinated. The vaccine is most effective when given before a female has her first sexual relationship. Remember that HPV infection is common in sexually active men and women and it often causes no visible symptoms.

If you are concerned about HPV, call your doctor to schedule an appointment to discuss cervical cancer screening and HPV vaccination.