



9195 Grant Street, Suite 410  
Thornton, CO 80229  
Phone: 303-280-2229(BABY)  
Fax: 303-280-0765

300 Exempla Circle, Suite 470  
Lafayette, CO 80026  
303-665-6016  
303-665-0121

6363 West 120<sup>th</sup> Avenue, Suite 300  
Broomfield, CO 80020  
303-460-7116  
303-460-8204

[www.whg-pc.com](http://www.whg-pc.com)

---

## Human Papillomavirus (HPV) Infection

Infection with human papillomavirus (HPV) is one of the most common sexually transmitted diseases. HPV can cause many changes in the genital tract, including genital warts, abnormal cells and even cancer of the cervix. It is most common in men and women between the ages of 20 and 40. It is estimated that one on every ten Americans-men and women-will have the HPV virus at some time. Today, more men and women are being diagnosed with HPV. This is not only due to an increased presence of the disease but also to better diagnostic laboratory tests to detect the virus. There may be several reasons for this increase in the incidence of diagnosis of HPV. Women today tend to have more sexual partners, and are less likely to rely on condoms for birth control. Both of these habits increase the risk of infection. The fact that more women smoke today also may increase the problems that can arise with HPV infections.

### What Is HPV?

HPV is a virus that needs to infect cells in order to live. Cells infected with the virus eventually die. When this happens, they are shed from the body just as skin cells are shed. The virus is shed along with the dead cells. When the virus is shed, it can be passed to another person, who can also become infected.

Once the virus has been passed on, it may be some time before the other person shows any signs of infection. These signs often appear several months after infection, but sometimes they may appear years later.

HPV is generally thought to be a sexually transmitted disease, although other, nonsexual forms of transmission may occur.

There are many types of HPV. Some types tend to infect cells in the genital areas of men and women, while others tend to infect cells in other parts of the body. HPV can cause common warts, such as those that appear on fingers and hands. Sometimes these warts spread to the genital area, but this is rare. While unsightly, common warts do not pose any major health risks.

The types of HPV that are found in the genital area can cause condylomas, or genital warts. These growths may appear on the outside or inside of the genital area and can spread to nearby skin or to a sexual partner.

While most HPV infections are not a serious threat to your health, some can increase the risk of getting cancer. This is why regular check-ups that include Pap tests are so important for women who have had genital warts.

### What Are The Symptoms Of HPV?

The HPV appears as soft, flat irregularly shaped growths called warts that appear on, in and around the genitals, rectum, mouth and throat. They can even be located in the anus and in the urethra, the tube in the penis that transports urine from the bladder to the outside of the body. They may appear as single isolated lesions but frequently are multiple in numbers. Very small warts cannot be seen with the naked eye and may not produce any symptoms. The diagnosis can be made by applying a dilute solution of acetic acid or full-strength white vinegar to the genital skin, then looking for the lesions with a special magnifying instrument or glasses.

### **Why Should HPV Be Treated?**

It has been confirmed that HPV can cause cancer of the cervix in women. The diagnosis is made in women by identifying abnormal cells on the Pap smear. It is for this reason, that all women with the characteristic findings on their Pap smear have their sexual partners examined for HPV. Although not as common and not as conclusive, HPV is weakly associated with penile and bladder cancer in men.

### **Treatment**

Although some signs of infection may go away without treatment, medical attention may be advised. There are many ways of treating the changes caused by the virus:

- \*Trichloroacetic acid (TCA) and Dichloroacetic acid (DCA) are strong chemicals sometimes painted on genital warts to destroy them. These drugs may cause some burning and must be used very carefully. These are applied by your health care provider in the office.
- \*Podophyllin is a drug that has been painted on genital warts to treat them. Because it can burn and should not be used during pregnancy, it is now rarely used.
- \*Aldara® is a prescription drug that you can apply to the warts at home. It may cause mild burning and inflammation. Your doctor should show you how to apply it before you use it at home.

Several office procedures also are used to treat warts that are extensive or don't respond to medical treatments.

- \*Cryotherapy (cold cautery) destroys warts and other growths by freezing.
- \*Laser treatment (a high-intensity beam of light), may be used to destroy the growth.
- \*Electrosurgery uses an electric current to burn away the lesion or shave it with a tiny loop.
- \*Excisional biopsy (cutting away) may be needed to remove warts or other growths.

### **What Treatment Should Be Used For Men Who Have No Visible Lesions?**

We believe that all female partners who either have lesions or abnormal Pap smears are at an increased risk of cervical cancer and therefore their male partners need to be evaluated and, if lesions are identified, appropriate treatment provided. For those men who are uncircumcised and continue to have recurrent lesions underneath their foreskin, a circumcision is recommended.

### **Summary**

HPV is probably one of the most common sexually transmitted diseases in the United States. Both visible lesions and lesions visibly enhanced with the use of acetic acid can be removed; it is unlikely that the entire HPV virus can be destroyed. Therefore, the use of condoms is strongly advised for those with active lesions or when one or both partners are being treated.