What is HPV?

HPV is a virus that infects healthy cells making them abnormal. HPV is the most common sexually transmitted infection (STI) and is responsible for 5% of cancers worldwide. Nearly all sexually active adults will have at least one type of sexually transmitted HPV at some point in their lifetime. It can be transmitted through skin-to-skin contact during sexual activity. HPV can be spread without engaging in intercourse. All people who have ever had sex are at risk for HPV infection.

There are over 100 strains of HPV. 40 HPV strains are sexually transmitted with at least 13 of these carrying the ability to cause cancer. For the majority of the population, one’s immune system will rid the body of the virus and HPV will not turn into warts, precancer or cancer. For other individuals, HPV can lay dormant in their bodies and resurface as an HPV-related cancer decades later. HPV can be classified as either low-risk or high-risk. Low-risk strains of HPV may manifest as genital warts. High-risk strains may turn into cancer.

Two high-risk strains of HPV that are most associated with HPV-related cancers are HPV-16 and HPV-18. High-risk strains of HPV can result in HPV-related cancers of the anus, cervix, oropharynx, penis, vagina, and vulva. It is estimated that 93% of anal cancer is caused by HPV. Of the cancers caused by HPV, 93% are attributable to two types, HPV-16 and HPV-18.

HPV can also cause recurrent respiratory papillomatosis (RRP). RRP is passed from mother to child during childbirth and manifests in the child as warts in the throat. RRP is extremely rare and can result in a hoarse sounding voice and breathing difficulties.

How do I prevent an HPV infection?

Immunization with the HPV vaccine protects against multiple strains of the virus. In both the United States and United Kingdom, males and females are recommended to be vaccinated against HPV.

Nearly all sexually active adults will have at least one type of HPV at some point in their lifetime. While condoms do not fully protect one from HPV, sexually active individuals should use barrier methods (i.e., condoms and dental dams) during every sex act, every time. Because HPV is transmitted through skin-to-skin contact, areas left exposed while wearing a condom during sexual activity are vulnerable to HPV transmission. Routine screening will alert people to an HPV infection.
How can I tell if I have HPV?

79 million American men and women – 1 in 4 – currently have HPV. In most cases HPV goes undetected and it is not clear that an individual has HPV. Most individuals’ immune systems will clear the body of the virus. However, HPV can lay dormant in one’s body for many years, and because of this it is difficult to determine from which sexual partner one contracted the infection.

Individuals with compromised immune systems are at a greater risk for HPV infection and more vulnerable to HPV progressing into precancer and cancer. Smoking may also increase this risk.

How can I be checked for HPV?

Women are recommended to be routinely screened for the precancerous cells caused by HPV. Gynecologists and female health providers use a Pap test to check for abnormal cells on your cervix and/or an HPV test to look for HPV presence in your cells. Unfortunately, there is no routine screening or testing protocol for HPV in men. However, there are tests that can look for anal precancerous lesions in men and women. Screening methods include anal Pap test, DARE (digital anorectal exam), and anoscopy (see Common HPV and Anal Cancer Terms for details). For most individuals, HPV will be cleared by one’s immune system. It is important to consult a physician if you notice any abnormalities on your genitals or anus including warts, lesions, bumps, lumps, or blisters. Sexually active individuals should discuss their sexual health with their partners.

For a glossary of terms, please see our Common HPV and Anal Cancer Terms page.

These fact sheets were reviewed by an oncologist and nurse.