WHAT IS HPV?
Human Papillomavirus (HPV) is the name of a family of viruses that has over 100 different strains. About 40% of these strains prefer to infect the genital areas of men and women:
- Some of these strains, known as “low-risk” HPV types, cause genital warts.
- Other strains, known as “high-risk” HPV types, can cause cervical cancer and other less common cancers.

The HPV strains that cause genital warts are different from the HPV strains that cause cervical cancer. For more information about HPV and cervical cancer, please refer to the handout “Human Papillomavirus & Cervical Cancer.”

HOW COMMON IS HPV?
Genital HPV (both low- and high-risk types) is the most common sexually transmitted infection (STI) in the United States. It has been estimated that 75-80% of sexually active adults will become infected with genital HPV before the age of 50.

HOW ARE GENITAL WARTS TRANSMITTED?
- Genital warts are usually spread by direct skin-to-skin contact during sex (vaginal, oral, and anal) or any genital contact with an infected partner.
- An infected person can spread the virus even when they have no visible signs of infection.
- It is possible, though very rare, for an infant to contract HPV while passing through the birth canal of an infected mother.

WHAT ARE THE SYMPTOMS?
- Most people with HPV don’t know they are infected because only a small percentage will develop a lesion that can be seen.
- Genital warts usually present as painless “cauliflower” bumps around the vagina, cervix, penis, or scrotum.
  - Lesions may also be flat, single, multiple, small, or large.
  - Genital warts can also appear on the anus or urethra. HPV rarely grows in the mouth.
  - Genital warts do not usually cause pain or bleed, though they may sometimes itch.

HOW ARE GENITAL WARTS DIAGNOSED?
- Some women are diagnosed with HPV when abnormal changes are noted on their Pap smear, which is a screening test for cervical cancer. The HPV strains found on a Pap smear can lead to cervical cancer but do not cause genital warts.

WHEN AND HOW DID I GET GENITAL WARTS?
There is no way to know for certain. The incubation period (the time between infection and the development of symptoms) varies greatly.
- Visible bumps may develop 1 to 8 months or even years after exposure.
- Warts seem to grow faster when the body’s ability to fight infections is weakened by stress or illness.
**CAN GENITAL WARTS BE CURED?**
- There is no treatment that will permanently cure HPV infections. Even though the skin will look normal after treatment, some cells may remain infected with HPV.
  - Recurrences are common and are mostly likely to occur during the first 3-6 months following treatment. About 5-10% of people remain carriers after the initial infection.
  - It is unclear whether treatment reduces transmission to others.
- Even without treatment, most people will clear the virus with their own immune systems within 2 years. Spontaneous resolution of genital warts within 3 months has been reported in 20-30% of cases.

**WHAT IS THE TREATMENT?**
- Treatment by a healthcare professional involves applying a chemical, such as liquid nitrogen or trichloroacetic acid, directly to the visible lesions. Very large lesions may require surgical removal.
  - If chemicals are used, they are applied every 1-2 weeks until the bumps are gone.
  - The application of these chemicals destroys the top layer of skin where the virus lives and stimulates a person’s immune system to fight off the virus.
- If home treatment is preferred, topical prescription medications are available. Commonly used medications include the following:
  - Imiquimod cream (Aldara and Zyclara) works by strengthening the immune system to combat HPV.
    - Aldara 5% is applied directly to the warts at bedtime, 3 times a week for up to 16 weeks.
    - The cream should be rubbed into the skin until it is no longer visible.
    - The treated area is then washed with mild soap and water 6-10 hours later.
    - Avoid sexual contact while the cream is on the skin.
    - The cream can also weaken condoms.
  - Zyclara 3.75% is applied daily at bedtime for up to 8 weeks.
  - Podofilox (Condylol) cream or gel is safe to use on external lesions. It is applied twice daily for 3 days, followed by 4 days of no treatment. This cycle may be repeated for up to 4 cycles.

**NO OVER-THE-COUNTER WART TREATMENTS SHOULD BE USED IN THE GENITAL AREA!**

**CAN HPV BE PREVENTED?**
Yes! There are several ways to decrease your chances of getting HPV if you are sexually active.
- Choose to be monogamous and to use latex barriers (eg. condoms, dental dams, finger cots) all the time.
  - Even though condoms cannot cover all areas of skin that may harbor HPV (eg. the scrotum, outer labia), consistent condom use is known to lower the risk of HPV and HPV-related diseases.
  - Condom use also helps protect the cervix and promote the clearance of HPV.
- Get vaccinated. Gardasil and Gardasil 9 are safe and effective vaccines that protect against HPV infections that cause genital warts and cervical cancers.
  - Gardasil protects against 4 HPV types known to cause 90% of genital warts and 70% of cervical cancers.
  - The new Gardasil 9 provides further protection against 5 other HPV types that cause an additional 19% of invasive cervical cancers.
  - Both Gardasil vaccines are given in 3 doses over 6 months and have been approved for use in females ages 9-26 and males ages 9-21 (up to age 26 in men who have sex with men).
  - These vaccines are most effective in individuals who have not yet been infected with HPV (ie. prior to becoming sexually active). However, they can still protect individuals already infected with HPV from other HPV types that they have not been exposed to yet.

**RECOMMENDED RESOURCES:**
- American Social Health Association STI Resource Center Hotline, 1-919-361-8488
- CDC STD National Hotline, 1-800-232-4636
- VCU’s Wellness Resource Center carries copies of HPV News, which is one of the most accurate sources of information about HPV. Information about area support groups is also available.