UNIVERSITY STUDENT HEALTH SERVICES • Fact Sheet

HPV & GENITAL WARTS

WHAT IS HPV?

Human Papillomavirus (HPV) is the name of a family of viruses that consists of over 200 different strains. More than 40 HPV types are known to infect the genital area. These genital HPV strains have been divided into groups based on their risk for causing cervical cancer and other cancers:

- Low-risk HPV types are known to cause genital warts and very rarely lead to cervical cancer.
- High-risk HPV types can cause cervical cancer and other less common cancers, such as anal cancer, in some people.

This handout focuses on the low-risk HPV strains that cause genital warts. For information about high-risk HPV and cancer, please refer to our handout "Human Papillomavirus & 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, as well as globally.

- It is estimated that at least 75% of sexually active adults in the US have been infected with genital HPV at some time.
- About one in 100 sexually active adults in the US has genital warts at any given time.

HOW ARE GENITAL WARTS TRANSMITTED?

HPV is spread by direct skin-to-skin contact with the infected genital area, usually during sex (vaginal, anal, or oral). Genital warts are highly infectious because of their high viral load.

- An infected person can spread the virus even if they have no visible warts.
- It is possible, though rare, for an infant to develop warts after passing through the birth canal of an infected mother.

WHAT ARE RISK FACTORS FOR HPV?

- Sexual activity is the primary risk factor for developing genital warts.
- Immunosuppression (eg. HIV, diabetes, taking immunosuppressant medications) is associated with larger and more treatment-resistant warts.
- Smoking has also been associated with an increased risk of genital warts.

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.

- If symptoms are present, genital warts usually appear as painless "cauliflower" bumps around the vagina, cervix, penis, scrotum, and groin areas.
  - Lesions may also be flat, smooth, single, multiple, small, or large.
  - Genital warts do not usually cause pain or bleed, though they may sometimes itch.
  - Genital warts can also appear on the anus or urethra; large warts in these areas may cause problems with defecation or urination.
  - Genital warts rarely grow in the mouth.

- After their initial appearance, genital warts can increase in size and number or spontaneously regress. About one third of visible warts will resolve without treatment within 4 months.

HOW ARE GENITAL WARTS DIAGNOSED?

- Genital warts are usually diagnosed based upon their appearance:
  - If you find a bump in the genital area, schedule an exam with your healthcare provider. There are several different skin conditions that can lead to genital bumps. It is important to have an expert help make the correct diagnosis.
  - Biopsies may be performed if lesions are atypical or do not respond to treatment.

- Testing for other STIs should also be completed:
  - This includes tests for gonorrhea, chlamydia, HIV, and syphilis.
  - Although the low-risk HPV types that cause genital warts rarely lead to cancer, coinfection with high-risk HPV types linked to cervical, anal, and other cancers is common.
    - Screening for cervical cancer with Pap smears should be completed according to current guidelines. Please refer to our handout "Your Pap Smear: What You Need to Know" for more information.
    - Some experts recommend screening for anal cancer in high-risk patients (eg. those with HIV, men who have sex with men) with anal Pap smears. Research is ongoing, and standard guidelines for the timing and frequency of screening have not yet been established. However, some experts recommend screening annually at age 25 in those with HIV and every 2-3 years at age 40 in at-risk immunocompetent patients.

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 start of symptoms) varies from 3 weeks to 8 months.
- In addition, the first time a wart is noticed may be during a recurrence (and not during its first episode).
- Therefore, a new diagnosis of genital warts does not mean that the patient or partner is having sex outside of the relationship.

CAN GENITAL WARTS BE CURED?

- There is no treatment that will permanently cure HPV infections. Even though the skin will look normal after treatment or spontaneous resolution, some cells may still harbor HPV.
  - 20-30% of patients will have a recurrence within a few months.
  - Successful treatment or spontaneous resolution of warts does not eliminate the risk of transmission to others.

- However, with or without treatment, most individuals will clear the HPV infection on their own within 2 years.

WHAT ARE INDICATIONS FOR TREATMENT?

Treatment recommendations vary based on the location of visible warts.

- Vaginal and vulvar warts alone do not cause serious problems with health or fertility. Visible warts that are not causing problems may be monitored. However, treatment is usually completed for cosmetic reasons or to alleviate bothersome symptoms, such as itching, irritation, bleeding, pain with sex, and obstruction of the vagina.
- All adult males with anogenital warts should be offered treatment because lesions that spread or enlarge can become more difficult to treat. Treatment should not be delayed if warts are interfering with urination and/or defecation.

WHAT ARE TREATMENT OPTIONS?

Both in-clinic and at-home treatment options are available. There is no high-quality evidence that any treatment is superior to another.

- The treatment course is often long and requires frequent follow-up, with clearance of warts in 35-100% of patients in 3-16 weeks.
- If the patient does not respond to initial treatment after 3 weeks, a different treatment option should be considered.

- **IN-CLINIC TREATMENTS**

Treatment by a healthcare professional involves applying a chemical, such as liquid nitrogen or trichloroacetic acid (TCA), to visible lesions to directly destroy wart tissue. Response to in-clinic treatments may be faster compared to home treatments.

- Liquid nitrogen is commonly used to freeze wart tissue. It is typically applied every 1-2 weeks using a cotton swab or spray device.
- TCA is a caustic acid that is applied weekly for 4-6 weeks. It is the preferred treatment during pregnancy.
- Surgical removal is reserved for lesions that are very large or not responding to medical therapies.

❖ **HOME TREATMENTS**

Topical prescription medications are available for home treatment. These therapies are most useful for patients with 5 or fewer small warts.

NOTE: Over-the-counter wart treatments should not be used in the genital area!

Examples of commonly used prescription medications include the following:

- Imiquimod cream (Aldara 5% and Zyclara 3.75%) works by strengthening the immune system to combat HPV. Mild localized redness, swelling, itching, and/or burning at the site of application should occur, which means that the medication is working.
  - Aldara 5% is applied directly to warts at bedtime, 3 times a week for up to 16 weeks.
  - Zyclara 3.75% is applied daily at bedtime for up to 8 weeks.
  - When using these treatments,
    - A thin layer of cream should be applied to each wart and rubbed in until the cream 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.
- Podofilox (Condylox) solution or gel is used on external lesions to block cell division, resulting in cell death. 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.

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 use latex barriers (eg. condoms, dental dams, finger cots) with every sexual encounter. 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. Condoms also help protect the cervix & promote clearance of HPV. For more information, read "Safer Sex & Condom Use".
- Get vaccinated against HPV. Gardasil 9 is a safe and effective vaccine that protects against 9 HPV strains that cause the majority of cervical cancers and genital warts. It also protects against anal cancer in men who have sex with men (MSM).
  - The vaccine is given in 3 doses over 6 months. Student Health can help eligible students receive free or discounted vaccines.
  - Gardasil 9 is routinely recommended for people ages 9-26. However, vaccination may be considered in people ages 27-45 depending on their risk factors.
  - The vaccine is most effective among individuals who have not yet been infected with HPV (ie. prior to becoming sexually active). However, it can still protect those already infected with HPV from other HPV types that they have not been exposed to yet.
  - The vaccine does not treat or cure existing HPV infections.

RECOMMENDED RESOURCES: www.ashasexualhealth.org, www.cdc.gov/hpv, www.niaid.nih.gov