

Human papilloma virus (HPV)



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What is the human papillomavirus (HPV)?

- Human papillomavirus (HPV) infection is a viral infection and is considered the most common infection of the reproductive system.
- Human papillomavirus (HPV) is a common sexually transmitted infection that can affect the skin, the genital area, and the throat.
- It is responsible for causing multiple epithelial lesions and cancers. It may present as cutaneous or anogenital warts, which can potentially progress to cancer.

Causes

- Human papillomavirus (HPV) infection occurs when the virus enters the body, usually through a cut or abrasion in the skin. The virus is primarily transmitted in the genital area through skin-to-skin contact involving the genital region.
- HPV is transmitted through direct skin contact, including any contact involving the genital area, such as hand-to-genital contact. However, it is not transmitted through contact with surfaces, such as toilet seats.
- HPV can be transmitted even when the infected person has no signs or symptoms.



Risk factors

- A high number of sexual partners, which is one of the most common risk factors
- Smoking
- Weakened immune system
- Direct contact with warts of an infected person
- Areas of broken or punctured skin
- Not receiving the vaccine at an early age

Symptoms

- Most people infected with human papillomavirus (HPV) have no signs, symptoms, or health problems at all. Most HPV infections clear up within two years; however, in some cases, HPV infection may persist for a longer period and can lead to certain types of cancer and other diseases.

Symptoms

1. Genital warts: These lesions appear as flat lesions or small bumps on the surface of the skin.

In males	In females
Warts may appear on the penis, on or around the scrotum, or in the groin area.	Warts may appear around the vulva (the entire female external genital area), inside or around the vagina, inside or around the anus, on the thighs, or on the cervix.

Symptoms

2. Common warts:

- Common warts appear as rough, raised bumps and usually occur on the hands and fingers. In most cases, warts may be painful or prone to injury or bleeding.



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Symptoms

3. Plantar warts:

- They are hard, grainy warts that usually appear on the heel or the sole of the foot. These warts may cause discomfort.



Symptoms

4. Flat warts

- Flat warts are smaller and less rough than other types of warts. They commonly appear on the face or legs and are more frequent in children and adolescents than in adults.



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Diagnosis

- There are tests available for diseases related to human papillomavirus (HPV):
- Cervical screening: Cervical cancer can be detected through routine cervical cancer screening (Pap smear test) and by follow-up of abnormal results.





Complications

- Recurrent infection with human papillomavirus (HPV) can cause cervical cancer, which is considered one of the most common complications among women.
- Depression
- Loss of self-esteem
- Genital warts may lead to urinary tract obstruction.
- Malignant transformation



Prevention and Treatment

Prevention:

- Primary prevention begins with vaccination against human papillomavirus (HPV) for girls aged 11–12 years, and vaccination may be started as early as 9 years of age.
- Cervical screening for women aged 21–29 years should be performed every three years using cervical cytology (Pap smear).
- Cervical screening for women aged 30–65 years should be performed every five years using HPV testing.
- The vaccine requires administration in three doses over a six-month period.
- The HPV vaccine does not cure existing HPV infections.



Prevention and Treatment

Treatment:

- There is no treatment for the virus itself, but the problems caused by human papillomavirus (HPV) can be treated, including:
- Genital warts: They may remain visible, increase in size, or resolve spontaneously, and can be treated when they appear.
- Abnormal cervical cells: These cells can be treated to prevent the development of cervical cancer; however, treatment depends on the severity of cellular changes, the woman's age, her medical history, and the results of other tests.
- Cervical cancer remains highly treatable when it is diagnosed and treated at an early stage.



Common questions and misconceptions

How does human papillomavirus (HPV) infection lead to cervical cancer?

- Most HPV infections resolve spontaneously within one to two years. However, HPV infection may become chronic and progress to cervical cancer. Cervical changes that lead to cancer typically take 15–20 years to develop in women with a normal immune system, whereas in immunocompromised women, this process may take 5–10 years.



Common questions and misconceptions

- Can cervical cancer be prevented?
- Yes, cervical cancer can be prevented through regular cervical screening with Pap smear at the recommended age and appropriate follow-up.
- **Misconceptions:**
 - Human papillomavirus (HPV) can be treated by vaccination:
 - In fact, there is no HPV vaccine that treats cervical cancer or existing HPV infections. However, the vaccine prevents infection with HPV types that are most commonly associated with cervical cancer and other HPV-related diseases.

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