

HUMAN PAPILLOMAVIRUS (HPV)

What is HPV?

- Human papillomavirus (HPV) is a common virus.¹
- There are more than 100 types of HPV, most of which are relatively harmless,² do not cause any noticeable symptoms and will go away on their own.³
 - Of these, about 30 infect the genital areas of women and men.⁴

How common is genital HPV infection and who gets it?

- Approximately 630 million people are infected with HPV worldwide⁵
- Data on the proportion of women in the general population in Asia who are infected with HPV is limited.
 - One international pooled analysis (n=15,613) found the prevalence of HPV infection among women varied significantly among the 11 countries and for different age groups.⁶ In Asia the prevalence of HPV infection in Ho Chi Minh City, Vietnam, is 11 percent (n=922) and 2 percent in Hanoi (n=994)⁷; approximately 10 percent in Busan, South Korea;⁸ 9 percent in Lampang, Thailand, and 4 percent in Songkla, Thailand⁹.
 - In a separate study in Shanxi province, China, which has that country's highest rate of cervical cancer mortality, the prevalence of infection with the "high risk" types of HPV was 24 percent.¹⁰
- At least half of all sexually active women and men acquire genital HPV infection at some point in their lives.¹¹
 - A significant majority of women – 80 percent – will become infected by age 50.¹²
 - HPV infection is most common among young adults between the ages of 18 and 28.¹³
- Most HPV infections have no signs or symptoms, and the virus can be transmitted even when no symptoms (such as warts or other visible signs) are present.¹⁴

What impact can HPV infection have?

- Most HPV infections clear on their own in 1-2 years through the body's natural immune response.¹⁵
- Infection with "high-risk" types of HPV – types 16, 18, 31 and 45, among others – if persistent, can lead to cervical cancer and other cancers of the genital area.¹⁶
 - HPV 16 and 18 account for an estimated 70 percent of all cervical cancers.¹⁷
- "Low-risk" HPV types can cause the formation of genital warts, fleshy, non-cancerous growths that appear on and around the genitals.¹⁸
 - HPV types 6 and 11 are responsible for 90 percent of all genital warts cases.¹⁹
 - In rare cases, transmission of HPV types 6 or 11 from their mothers can cause infants to develop recurrent respiratory papillomatosis (RRP),²⁰ a disease in which benign lesions in the respiratory tract can result in hoarseness, and in some situations, difficulty breathing.²¹
- Both high- and low-risk HPV types can cause cervical lesions and abnormal Pap smears²² (the test used to detect cancer and other cellular changes in the cervix).²³

How does HPV progress to cancer?

Infection with HPV will typically clear, but some infections with high-risk HPV types may ultimately lead to cervical cancer. Cervical lesions are due to abnormal cervical cells, known as cervical intraepithelial neoplasia (CIN). Following initial HPV infection, the course of progression to cervical cancer depends on the type of HPV.

- Low-risk HPV types (such as HPV 6 or 11) have a negligible risk of progressing but may persist²⁴. Overall, the majority of HPV infections spontaneously clear within the first 24 months²⁵.
- High-risk types (such as types HPV 16 and 18) are often associated with CIN 2 or higher lesions. Although CIN caused by HPV infection often clears without treatment, the likelihood of progression to invasive cancer is greater in more severe grades (CIN 2/3).
 - CIN2/3 – moderate and severe dysplasia, respectively (high grade cervical lesions or pre cancerous lesions).
 - CIN1 – mild dysplasia, includes anogenital warts²⁶

How is HPV diagnosed?

- Pap tests, which screen for abnormalities of the cervix, often identify abnormalities caused by HPV.²⁷
 - Because Pap tests do not screen directly for HPV, results cannot definitively confirm that infection with HPV does or does not exist.²⁸
- For women over 30, a recently developed, molecular test can identify infection with HPV more definitively and is especially useful in conjunction with Pap test results which reveal minor abnormalities that may be due to HPV infection.²⁹

How is HPV infection treated?

- Currently, there are no available anti-viral medications to treat HPV infection.³⁰
- There are a variety of treatments for HPV-related diseases – genital warts, pre-cancerous lesions and cervical cancer.³¹

How can HPV infection be prevented?

- A person can reduce his or her risk of infection by staying in a long-term, mutually monogamous relationship with an uninfected partner or limiting the number of sexual partners.³²
- If used correctly, condoms can help reduce the risk of HPV infection. However, the level of protection from HPV infection with condom use has not yet been determined.³³
- Keep in mind that HPV often has no symptoms or signs,³⁴ so it is difficult to know if a person is infected.³⁵ The only 100 percent effective method for preventing HPV infection is to refrain from any sexual genital contact with someone who has the virus.³⁶
- Women should talk to their healthcare providers about having regular Pap screening tests, and discuss results with them.

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