

Micro-immunotherapy & Genital Human Papillomavirus Infections



Unclear or inconclusive
Pap results

Genital warts

Complementary treat-
ment in HPV-associated
cancer

Keep the virus in check



Have you ever heard of **human papillomaviruses**?

Anyone who has noticed a wart on their skin, face, hands, or feet during their lifetime has likely had an infection with human papillomaviruses (HPV) since most warts are caused by these pathogens. Transmission occurs through direct skin contact from person to person or via an object that has come into contact with the virus. Some types of papillomaviruses are transmitted through sexual contact, affecting the genital organs and the anus, potentially leading to various diseases. This brochure focuses on papillomavirus infections in the anogenital area and presents the approach or effective management.

HPV – It gets under the skin

An HPV infection is not uncommon; in fact, it is among the most frequently sexually transmitted infections worldwide. Almost every sexually active person gets infected with genital HPV types at least once in their lifetime. Both men and women can become equally infected^{1,2}.

Risk factors for an HPV infection include a high number of sexual partners over a lifetime, engaging in oral and anal sex, and a weakened immune system².

The viruses penetrate through micro-injuries in the skin or mucous membranes and infect human body cells. These cells are manipulated to carry out viral replication. Subsequently, the infected cell is induced to burst, releasing the newly formed viruses, which can then infect further cells³ (Fig. 1).

An infection with potential consequences

Often, an HPV infection is asymptomatic and without consequences because the immune system quickly and effectively controls the pathogens³. However, in some cases, depending on the type of HPV (low-risk or high-risk group), different diseases may develop.

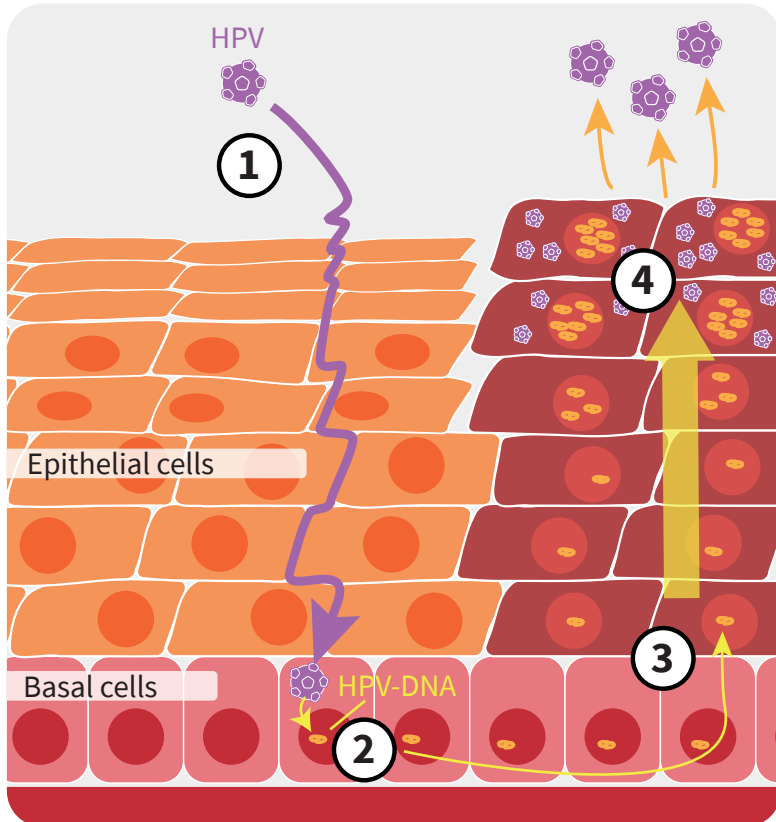


Fig. 1. HPV replication cycle

1. HPV infects human body cells (basal cells).
2. The HPV genetic material remains preserved in the body cell.
3. The body cell divides and reproduces HPV DNA.
4. The HPV DNA is increasingly replicated and new viruses are assembled, which are released when body cells burst.



Low-risk HPV types (including types 6, 11) are the most common cause of genital warts, also known as condylomas. Although the warts are relatively harmless, they are often unpleasant for those affected and can negatively impact sexual life and quality of life.

Conversely, high-risk HPV types (including 16, 18) can lead to cellular changes (known as dysplasia), which can further develop into cancer².



Note:

To detect potential cellular changes in the cervix at an early stage, a Pap smear as part of cancer screening at the gynaecologist is recommended.

But how high is the risk of developing cancer after an infection with a high-risk HPV type? The state of the immune system plays a decisive role in this.

Cancer risk with an HPV infection

As previously mentioned, in the best-case scenario, the body's immune system automatically kicks in and successfully eliminates the papillomaviruses, allowing the infection to heal without consequences. This is the case for 90% of women infected with a high-risk HPV type.

However, if the immune system is not balanced, these viruses can persist in the mucous membrane for many years and can lead to cancer precursors, eventually developing into carcinomas—particularly cervical cancer⁴. In 10% of women infected with a high-risk HPV type, the infection persists, and in less than 1%, cervical cancer can develop as a long-term consequence. On average, it takes about 15 years from infection to the onset of cancer (Fig. 2)⁵.

Other oncological diseases, such as cancer of the penis, vaginal and vulvar areas, or in the mouth and throat, have also been associated with these pathogens^{2,6}.

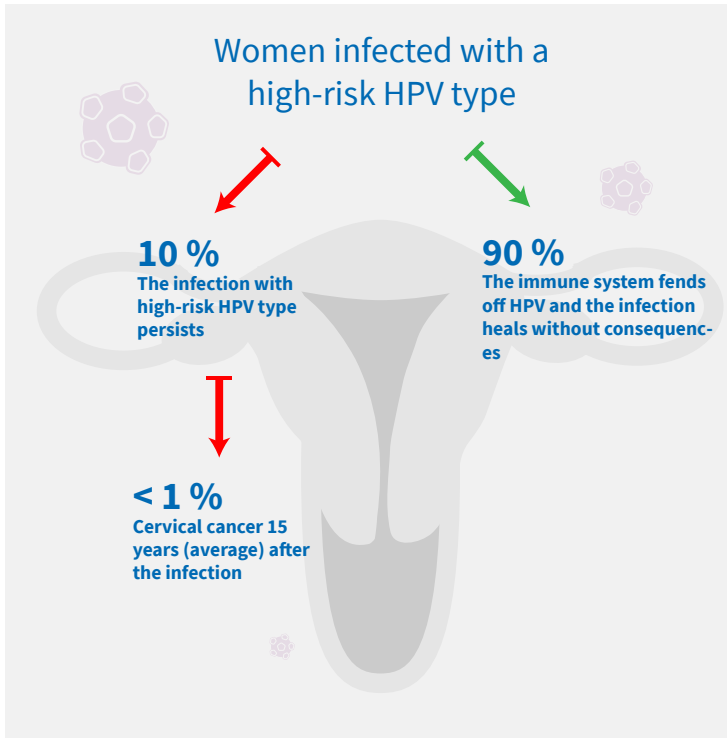


Fig. 2. Risk of cancer disease in HPV infection

The micro-immunotherapy approach

Micro-immunotherapy can provide valuable and gentle support for the immune system in cases of HPV infections. To specifically enhance immune functions in the fight against papillomaviruses, it employs particular immune messengers—primarily cytokines—in low doses. The goal of micro-immunotherapy is to restore the body to its natural and effective immune response and to prevent the replication and spread of HPV within the body.

Since micro-immunotherapy supports the immune system in bringing the virus under control, it indirectly counteracts associated diseases (warts, cervical dysplasia, cervical cancer).



Note:

In cases of cytologically unclear or doubtful gynaecological findings, the strategy of Watchful Waiting is typically applied until the next examination. The existing values may improve or worsen over time. This waiting period can be quite stressful for women. Micro-immunotherapy offers the possibility of actively using this monitoring period to strengthen the body's immune defences and positively influence cellular changes during the waiting time.

Experiences from daily practice show that with the help of micro-immunotherapy abnormal Pap findings can be improved or normalised, reducing the risk of cancer. This can often spare patients from undergoing the scheduled conization. This is especially advantageous for women who wish to have children, as conization increases the risk of infertility and premature births.

Micro-immunotherapy can be used across all age groups since it is easy to take sublingually (under the tongue) and has a good safety profile due to the low dosages. It is compatible with other therapeutic approaches and can, in principle, be integrated into any prevention or treatment plan (Fig. 3).

It is strongly recommended to treat the partner as well and to practice only protected sexual intercourse until full and confirmed recovery is achieved, in order to avoid reinfection with papillomaviruses.

Dr. Ina Chammah (Brunswick, Germany)

As of yet, I have not had any patient with an HPV infection for whom micro-immunotherapy did not help. It consistently achieves safe and rapid results. Neither have any of my colleagues had treatment failures with this therapy. Therefore, I highly recommend micro-immunotherapy to all those affected.



Find a doctor or therapist trained in micro-immunotherapy!

<https://www.micro-immunotherapy.com/what-is-micro-immunotherapy/find-a-healthcare-professional/>



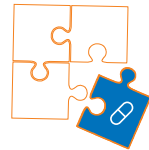
Suitable treatment
for all ages



Simple sublingual
administration



Good tolerability



Compatibility with
other treatments

Fig. 3. Benefits of micro-immunotherapy

Scientific publications

The efficacy of micro-immunotherapy in HPV infections was examined in a 2016 follow-up study involving 36 female patients aged 20 to 45, who had unclear or abnormal Pap results and a positive test for high-risk HPV types. Half of the study participants received micro-immunotherapy treatment for six months, while the other half served as a control group undergoing conventional monitoring without medication.

After 12 months, 78% of the patients treated with micro-immunotherapy no longer tested positive for HR-HPV infection (so-called clearance). The results were particularly positive for those over 25: 13 patients in the treatment group achieved complete viral clearance compared to only 2 women in the control group. This group also showed a stronger effect on the regression or normalisation of cellular changes. The treatment was well tolerated, and no side effects were reported.

Conclusion

Experiences from daily practice show that micro-immunotherapy is a valuable and safe treatment option for HPV infections in the genital area and associated diseases. It can be particularly helpful for patients whose chances of spontaneous resolution of the HPV infection decrease with age (around 25 years and older). Experience suggests that supporting the immune system often leads to the regression of virus-associated cellular changes, and surgical interventions can be avoided. Men infected with HPV can also benefit from micro-immunotherapy.

Literature

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