

Human Papillomavirus (HPV) & Oral Care

Recent data show that HPV is contributing to a growing number of head and neck cancers. The incidence of HPV-associated oropharyngeal cancers – cancers of the tonsil, throat and base of the tongue – has been increasing over the last 30 years. It is considered the sixth leading cause of cancer deaths in the world. Studies suggest that the rise could be attributed to changing lifestyles and sexual behaviours, specifically an increase in the number of young people having oral sex with many partners.

ABOUT HPV

HPV is one of the most common sexually transmitted viruses. About 70 per cent of all oropharyngeal cancers are caused by HPV infection. The virus infects the mucous membranes – the moist linings of the body cavity – such as the mouth, nose, throat, tongue, tonsils, vagina, penis and anus. HPV is extremely contagious. It is transmitted from person to person by skin-to-skin contact.

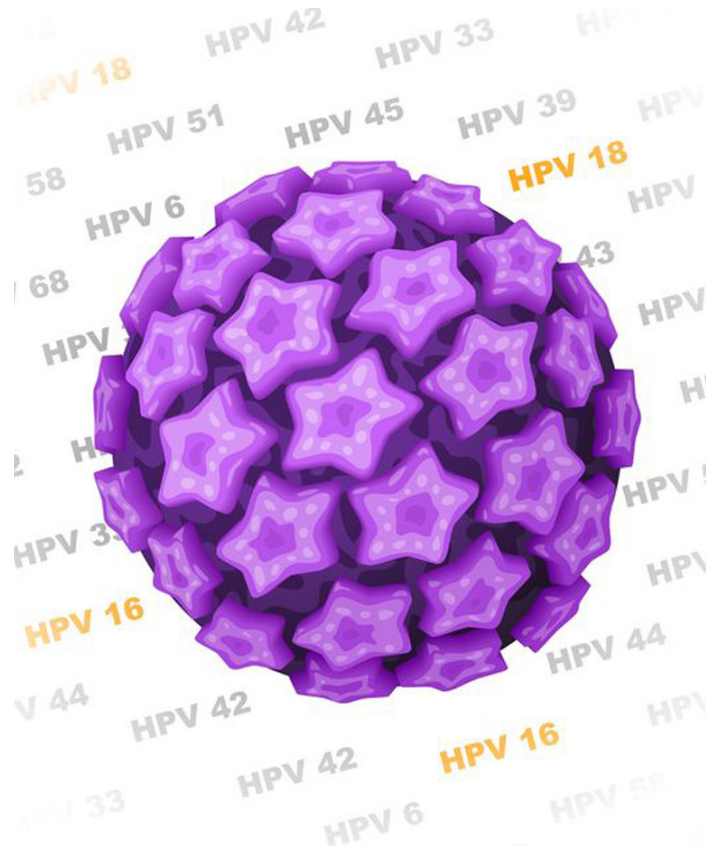
Some facts to consider:

- At least 70 per cent of sexually active men and women will have at least one HPV infection during their lifetime.
- Approximately three to nine million Canadians are infected with HPV. Most HPVs are non-cancerous and easily treated.
- While there are many different high-risk mucosal types of HPV, the most common types of infection associated with cancer are HPV-16 and HPV-18.
- HPV-18 and HPV-16 cause most of the cervical cancers.
- A large percentage of the HPV-positive oropharynx cancers are caused by HPV-16, a strain targeted by Gardasil and Cervarix, the two vaccines currently on the market to prevent cervical cancer.

CLINICAL IMPLICATIONS

Once the mucous membrane is infected with HPV, the virus multiplies throughout the body. Lesions may appear within weeks, months or years. Often individuals don't even know they are infected with HPV.

HPV infections causing genital warts are very contagious and can be contracted through sexual activity with the infected person. This includes kissing and/or touching



the skin of the infected area – like the scrotum, vagina, vulva and anus – and having intercourse. Although HPV is more likely to be transmitted when lesions or warts are visible, transmission is possible even when warts aren't visible.

SIGNS AND SYMPTOMS

- Genital warts are small, flat or cauliflower-shaped lesions that appear in the genital area, including the vagina, cervix, vulva, penis, scrotum and anus. They are usually painless but they can bleed, itch or have some discharge.
- Precancerous lesions or cervical dysplasia are abnormal cells in the cervix. These are painless and can only be detected with a Pap test.
- Infection in the oral cavity can be detected by:
 - A sore throat that doesn't respond to antibiotics
 - Hoarseness of voice
 - Pain when swallowing or chewing
 - A lump in the throat
 - Bleeding in the mouth
 - Oral lesions that don't heal

CAUSES AND RISK FACTORS

- Genital HPV infections occur most often in teenagers and young adults.
- A mother with an active genital HPV infection could also transmit the virus to the infant during child birth.
- Oral sex with multiple partners is one of the significant risk factors for oral cancer and oropharyngeal cancer.
- The higher the number of sexual partners, the greater the risk of HPV infection.
- Men and women who reported having six or more oral sex partners during their lifetime had a nearly nine-fold increased risk of developing cancer of the tonsil or base of the tongue.

PREVENTION AND TREATMENT

Unlike cervical cancer, there is no screening in place for oropharyngeal cancers. Prevention and early detection are key to the survival of HPV-related cancers.

The role of the dental hygienist

- Provide regular examinations and oral screening.
- Give instruction on self-examination of head and neck; report any abnormalities to a dental hygienist.
- Provide advice on treatment options.
- Refer clients to a physician or nurse practitioner.

Changing sexual behaviour

- Educate youth about the risks associated with early sexual activity, oral and anal sex.
- Reduce the risk of HPV infection by reducing the number of sexual partners.

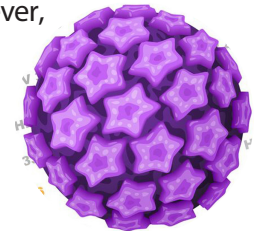
- Use barrier methods such as condoms and oral dams to help protect against HPV and other sexually transmitted infections, e.g., Chlamydia, herpes, HIV.

Treatment options

- Warts can be treated with prescription medications.
- They can be removed by a physician, e.g., cryotherapy, surgery, laser therapy.
- Removing warts does not always eliminate the HPV infection. Warts can reappear since the virus may still be present in the body.
- Abnormal cells in the cervix can be removed with cryotherapy or laser surgery.
- Vaccines are available for preventing HPV infections.

Vaccine programs

- There are two types of HPV vaccines available in Canada.
 - One is approved for females aged nine to 45 and males aged nine to 26. It protects against HPV-16 and HPV-18 that cause cervical cancers and HPV that causes genital warts.
 - The other vaccine is approved for females aged 10 to 25. It protects against HPV-16 and HPV-18 that cause cervical cancer.
- Ideally, individuals should be vaccinated prior to becoming sexually active. However, those who are already sexually active can still benefit from the HPV vaccination.



As professional health-care providers, dental hygienists are primarily concerned with promoting good oral health. Dental hygiene is among the largest of the regulated healthcare professions in the province. In Ontario all dental hygienists are registered with the College of Dental Hygienists of Ontario, which regulates the profession to ensure the public receives safe and ongoing comprehensive oral care.

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