

## Single men, smokers at higher risk for oral human papillomavirus infection, study shows

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(Medical Xpress)—Smokers and single men are more likely to acquire cancer-causing oral human papillomavirus (HPV), according to new results from the HPV Infection in Men (HIM) Study. Researchers from Moffitt Cancer Center, the National Cancer Institute, Mexico and Brazil also report that newly acquired oral HPV infections in healthy men are rare and when present, usually resolve within one year.

The study results appeared in the July issue of *The Lancet*.

HPV infection is known to cause virtually all cervical cancers, most anal cancers and some genital cancers. It has recently been established as a cause of the majority of oropharyngeal cancers, a [malignancy](#) of the [tonsils](#) and base of tongue.

HPV-related oropharyngeal cancer is rare, but rates have been increasing rapidly, especially among men. To determine the pattern of HPV acquisition and persistence in the oral region, researchers evaluated the HPV infection status in oral mouthwash samples collected as part of the HIM Study, which was originally designed to evaluate the natural history of genital HPV infections in healthy men.

"Some types of HPV, such as HPV16, are known to cause cancer at multiple places in the body, including the oral cavity," said study lead author Christine M. Pierce Campbell, Ph.D., M.P.H., a [postdoctoral fellow](#) in Moffitt's Center for Infection Research in Cancer. "We know that HPV infection is associated with oropharyngeal cancer, but we don't

know how the virus progresses from initial infection to cancer in the [oral cavity](#). One aspect of the HIM Study is to gather data to help us understand the natural history of these infections."

During the first 12 months, nearly 4.5 percent of men in the study acquired an oral HPV infection. Less than 1 percent of men in the study had an HPV16 infection, the most commonly acquired type, and less than 2 percent had a cancer-causing type of oral HPV.

Their findings are consistent with previous studies showing a low prevalence of oral HPV cancers. However, this study shows the acquisition of cancer-causing oral HPV appeared greater among smokers and unmarried men.

"Additional HPV natural history studies are needed to better inform the development of infection-related prevention efforts," said Anna R. Giuliano, Ph.D., director of Moffitt's Center for Infection Research in Cancer. "HPV16 is associated with the rapid increase in incidence of oropharyngeal cancer, most noticeably in the United States, Sweden and Australia, where it is responsible for more than 50 percent of cases. Unfortunately, there are no proven methods to prevent or detect these cancers at an early stage."

The researchers note that persistent oral HPV16 infection may be a precursor to oropharyngeal cancer, similar to how persistent cervical HPV infection leads to cervical pre-cancer.

**More information:** [www.thelancet.com/journals/lan...  
rticle/PIIS0140-6736%2813%2960809-0/fulltext](http://www.thelancet.com/journals/lan/article/PIIS0140-6736%2813%2960809-0/fulltext)

Provided by H. Lee Moffitt Cancer Center & Research Institute

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