

Oropharyngeal Cancer and the Human Papillomavirus (HPV)

Cancer of the oropharynx is a type of head and neck cancer that includes the tonsils, the back of the throat and the base of the tongue. When cancer is diagnosed in this area, it is called **oropharyngeal cancer**.

Most head and neck cancers begin in cells called squamous cells. These cells line the moist areas of the head and neck, such as the inside of the mouth, nose and throat.

Causes

While cigarette smoking is still one of the main causes of head and neck cancer, there have been fewer head and neck cancer cases in recent years, because fewer people are smoking.

Even though the overall number of head and neck cancers has gone down, oropharyngeal cancer is on the rise.

Research studies have shown that the **human papillomavirus (HPV)** can cause oropharyngeal cancer, especially in middle-aged people who are at an increased risk for having HPV infection.

Number of Cases

The Centers for Disease Control (CDC) and Prevention estimates that over 18,000 new cases of oropharyngeal cancers were diagnosed in 2015. More than 70% are now caused by HPV and it is the most common HPV-related cancer. More cases are now diagnosed in men than cervical cancers in women.

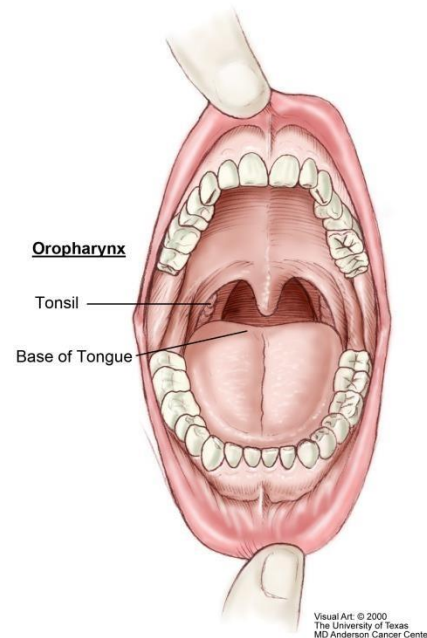
HPV Virus

HPV is a group of common viruses that can cause the growth of abnormal cells. In some cases, these abnormal cells become cancer. There are about 150 types of HPV. HPV spreads through skin contact. More than 30 are transmitted through sexual contact, making HPV the most common sexually transmitted infection in the world. Most people are infected with HPV shortly after they start having sex. The risk of HPV infection increases with:

- Every sexual encounter with a new partner
- Having sex at an early age
- Having sex with a partner who has had many partners

HPV can also be transmitted through oral sex and even deep mouth kissing.

Different types of HPV have different symptoms. Some types cause common warts that grow on the hands and feet. Other types cause genital warts that are transmitted through sexual activity. The types that can



Anatomy - Oropharynx
©MD Anderson Cancer Center

cause cancer usually have no symptoms at all.

HPV and Cancer

HPV infects cells that line the inside of the body, such as the cervix and tonsils. Most people's bodies are able to fight off an HPV infection. The infection can usually clear on its own within a year or two. But, sometimes parts of the virus can remain for many years and cause abnormal cell growth that could lead to cancer.

HPV Testing

A blood test is not available to check for HPV infection. For oropharyngeal cancer, cells from head and neck tumors that are removed during surgery or biopsy are tested for HPV. Testing positive for HPV in your tumor does not mean that the virus is active.

Being HPV Positive

If you have HPV-positive oropharyngeal cancer, you most likely got your infection many years before your diagnosis. Patients with HPV-positive oropharyngeal cancer tend to:

- Have better treatment results
- Have less chance of the cancer coming back
- Have greater chance of going a longer time before the cancer returns
- Survive their cancer longer

HPV Prevention

At this time, only Gardasil® 9 is available in the U.S. It is a 2-dose series and recommended for girls and boys to complete before their 15th birthday, before they become sexually active. A 3- dose catch-up series is recommended for those younger than age 27 who did not get vaccinated by age 15. The Food and Drug Administration (FDA) has approved the vaccine for use in women and men up to age 45, but the CDC has not yet issued a recommendation for this age group.

The vaccines have been shown to be very safe and effective. It prevents new HPV infections, but does not clear those that are already there or have any effect on invasive cancer.

If you have any questions about HPV and oropharyngeal cancer, talk with your doctor or nurse.

Sources

Centers for Disease Control and Prevention. HPV Vaccine – Questions and Answers.
<https://www.cdc.gov/hpv/parents/questions-answers.html>. Accessed 04/04/2019

Food and Drug Administration. FDA Approves Expanded Use of Gardasil 9 to Include Individuals 27 Through 45 Years Old. (2018, October 5). Press Release.
<https://www.fda.gov/newsevents/newsroom/pressannouncements/ucm622715.htm>.
Accessed 04/04/2019.

Oropharyngeal Cancer and the Human Papillomavirus (HPV)
The University of Texas MD Anderson Cancer Center ©2012
Revised 03/2020, Patient Education