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Laryngeal and Hypopharyngeal Cancer Causes, Risk Factors, and Prevention

Risk Factors for Laryngeal and Hypopharyngeal Cancers

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- [Human papillomavirus infection](#)
- [Excess body weight](#)
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A risk factor is anything that increases your chance of getting a disease like cancer. Different cancers have different risk factors. Some risk factors, like smoking, can be changed. Others, like a person's age or family history, can't be changed.

But risk factors don't tell us everything. Having a risk factor, or even several risk factors, doesn't mean that you will get the disease. And many people who get the disease have few or no known risk factors.

Laryngeal and hypopharyngeal cancers are often grouped with other cancers of the mouth and throat (commonly called [head and neck cancers](#)¹). These cancers often have many of the same risk factors listed below.

Tobacco and alcohol use

Tobacco use is the most important risk factor for head and neck cancers (including cancers of the larynx and hypopharynx). People who smoke have a much higher risk for these cancers than people who don't smoke. Most people with these cancers have a history of smoking or some other tobacco exposure. The more you smoke, the greater your risk. Smoke from cigarettes, pipes, and cigars all increase your risk of getting these cancers.

Some studies have also found that long-term exposure to secondhand smoke might increase the risk of these cancers, but more research is needed to confirm this.

Moderate or heavy [alcohol use](#)²

who smoke and drink are many times more likely to get head and neck cancer than people who don't have these habits.

If you are thinking about quitting smoking and need help, call the American Cancer Society at 1-800-227-2345. A tobacco cessation and counseling program can help increase your chances of quitting for good. More helpful information on quitting is also in [Stay Away from Tobacco](#)³.

Human papillomavirus infection

[Human papillomavirus](#)⁴ (HPV) is a group of over 150 related viruses. They are called **papillomaviruses** because some of them cause a type of growth called a papilloma, also known as a wart.

Infection with certain types of [HPV can also cause some forms of cancer](#)⁵, including cancers of the penis, cervix, vulva, vagina, anus, and throat. Other types of HPV cause benign (not cancer) warts in different parts of the body.

The rate of head and neck cancers related to HPV infection have been rising mainly for cancers of the throat (oropharynx). But HPV infection is a rare risk factor for cancers of the larynx and hypopharynx.

Excess body weight

Genetic syndromes

People with syndromes caused by [inherited gene](#)⁸ defects (mutations) have a very high risk of throat cancer, including cancer of the hypopharynx.

Fanconi anemia: People with this syndrome often have blood problems at an early age, which may lead to [leukemia](#)⁹ or myelodysplastic syndrome. They also have a very high risk of [cancer](#)¹⁰ [of the mouth and throat](#)¹¹, including laryngeal and hypopharyngeal cancers.

Dyskeratosis congenita: This genetic syndrome can cause aplastic anemia, skin rashes, and abnormal fingernails and toenails. People with this syndrome have a very high risk of developing head and neck cancers, especially of the mouth and throat, when they are young.

Workplace exposures

Long and intense exposures to wood dust, paint fumes, and certain chemicals used in the metalworking, petroleum, construction, and textile industries can increase the risk of laryngeal and some hypopharyngeal cancers.

[Asbestos](#)¹² is a mineral fiber that was often used as an insulating material in many products in the past. Exposure to asbestos is an important risk factor for [lung cancer](#)¹³ and [mesothelioma](#)¹⁴ (cancer that starts in the lining of the chest or abdomen). Some studies have suggested a link between asbestos exposure and laryngeal cancer, but not all studies agree.

Sex

Cancers of the larynx and hypopharynx are about 5 times more common in men than women. This is likely because the main risk factors—smoking and heavy alcohol use—are more common in men. But in recent years, as these habits have become more common among women, their risks for these cancers have increased as well.

Age

Cancers of the larynx and hypopharynx usually develop over many years, so they are not common in young people. Over half of patients with these cancers are 65 or older when the cancers are first found.

Race

Cancers of the larynx and hypopharynx are more common among African Americans and non-Hispanic White people than among Asian Americans, Pacific Islanders, American Indians, and Alaska Natives.

Gastroesophageal reflux disease

When acid from the stomach backs up into the esophagus it's called **gastroesophageal reflux disease (GERD)**. GERD can cause heartburn and increase the chance of [cancer of the esophagus](#)¹⁵. GERD is also thought to raise a person's risk of hypopharyngeal cancers, but more studies are being done on this.

Hyperlinks

1. www.cancer.org/cancer/types/head-neck-cancer.html
 2. www.cancer.org/cancer/risk-prevention/diet-physical-activity/alcohol-use-and-cancer.html
 3. www.cancer.org/cancer/risk-prevention/tobacco.html
 4. www.cancer.org/cancer/risk-prevention/hpv.html
 5. www.cancer.org/cancer/risk-prevention/hpv/hpv-and-cancer-info.html
 6. www.cancer.org/cancer/types/oral-cavity-and-oropharyngeal-cancer.html
 7. www.cancer.org/cancer/types/esophagus-cancer.html
 8. www.cancer.org/cancer/risk-prevention/genetics.html
 9. www.cancer.org/cancer/types/leukemia.html
 10. www.cancer.org/cancer/types/oral-cavity-and-oropharyngeal-cancer.html
 11. www.cancer.org/cancer/types/oral-cavity-and-oropharyngeal-cancer.html
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Amenábar JM, Torres-Pereira CC, Tang KD, Punyadeera C. Two enemies, one fight: An update of oral cancer in patients with Fanconi anemia. *Cancer*. 2019;125(22):3936-3946. doi:10.1002/cncr.32435.

Atkinson JC, Harvey KE, Domingo DL, et al. Oral and dental phenotype of dyskeratosis congenita. *Oral Dis*. 2008;14:419-427.

Barul C, Fayossé A, Carton M, et al. Occupational exposure to chlorinated solvents and

Howlader N, Noone AM, Krapcho M, Miller D, Brest A, Yu M, Ruhl J, Tatalovich Z, Mariotto A, Lewis DR, Chen HS, Feuer EJ, Cronin KA (eds). SEER Cancer Statistics Review, 1975-2017, National Cancer Institute. Bethesda, MD, https://seer.cancer.gov/csr/1975_2017/, based on November 2019 SEER data submission, posted to the SEER web site, April 2020.

Kutler DI, Auerbach AD, Satagopan J, et al. High incidence of head and neck squamous cell carcinoma in patients with Fanconi anemia. *Arch Otolaryngol Head Neck Surg.* 2003;129:106-112.

Kutler DI, Patel KR, Auerbach AD, et al. Natural history and management of Fanconi anemia patients with head and neck cancer: A 10-year follow-up. *Laryngoscope.* 2016;126(4):870-879. doi:10.1002/lary.25726;

Lee PN, Thornton AJ, Hamling JS. Epidemiological evidence on environmental tobacco smoke and cancers other than lung or breast.

CA Cancer J Clin. 2017;67(1):31-50.

Trott KE, Briddell JW, Corao-Uribe D, et al. Dyskeratosis Congenita and Oral Cavity Squamous Cell Carcinoma: Report of a Case and Literature Review. *J Pediatr Hematol Oncol.* 2019;41(6):501-503. doi:10.1097/MPH.0000000000001478.

Troy JD, Grandis JR, Youk AO, Diergaarde B, Romkes M, Weissfeld JL. Childhood passive smoke exposure is associated with adult head and neck cancer. *Cancer Epidemiol.* 2013;37(4):417-423. doi:10.1016/j.canep.2013.03.011.

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What Causes Laryngeal and Hypopharyngeal Cancers?

We don't know what causes each case of laryngeal or hypopharyngeal cancer. But we do know many of the risk factors for these cancers (see [Risk Factors for Laryngeal and Hypopharyngeal Cancers](#)) and how some of them cause normal cells to become cancer.

The development of normal human cells mostly depends on the information contained in the cells' DNA. DNA is the chemical in our cells that makes up our genes, which control how our cells work. We look like our parents because they are the source of our DNA. But DNA affects some things just how we look or Larch4 oi2 345.78 Tm /F2 12han jusow _w we

5. www.cancer.org/cancer/types/oral-cavity-and-oropharyngeal-cancer.html

References

Leeman JE, Katabi N, Wong, RJ, Lee NY, and Romesser PB. Chapter 65 - Cancer of the Head and Neck. In: Niederhuber JE, Armitage JO, Doroshow JH, Kastan MB,

Can Laryngeal and Hypopharyngeal Cancers Be Prevented?

Avoid tobacco and alcohol

[Tobacco use¹](#)

recommended they be given at an early age, but certain adults can also get vaccinated. Learn more in [HPV Vaccines](#)⁷.

Hyperlinks

1. www.cancer.org/cancer/risk-prevention/tobacco.html
2. www.cancer.org/cancer/risk-prevention/tobacco/health-risks-of-tobacco/secondhand-smoke.html
3. www.cancer.org/cancer/risk-prevention/diet-physical-activity/alcohol-use-and-cancer.html
4. www.cancer.org/cancer/risk-prevention/diet-physical-activity/acs-guidelines-nutrition-physical-activity-cancer-prevention/guidelines.html
5. www.cancer.org/cancer/types/oral-cavity-and-oropharyngeal-cancer.html
6. www.cancer.org/cancer/risk-prevention/hpv/hpv-and-cancer-info.html
7. www.cancer.org/cancer/risk-prevention/hpv.html

References

Chaturvedi AK, D'Souza G, Gillison ML, Katki HA. Burden of HPV-positive oropharynx cancers among ever and never smokers in the U.S. population. *Oral Oncol.* 2016;60:61-67. doi:10.1016/j.oraloncology.2016.06.006.

Mowery Y, Rocco JW. Treatment of early (stage I and II) head and neck cancer: The hypopharynx. In: Shah S, ed. *UpToDate*. Waltham, Mass.: UpToDate, 2020. <https://www.uptodate.com/contents/treatment-of-early-stage-i-and-ii-head-and-neck-cancer-the-hypopharynx>. Accessed September 14, 2020.

Rock CL, Thomson C, Gansler T, et al. American Cancer Society guideline for diet and physical activity for cancer prevention. *CA: A Cancer Journal for Clinicians.* 2020;70(4). doi:10.3322/caac.21591. Accessed at <https://onlinelibrary.wiley.com/doi/full/10.3322/caac.21591> on June 9, 2020.

Saslow D, Andrews KS, Manassaram-Baptiste D, et al. Human papillomavirus vaccination 2020 guideline update: American Cancer Society guideline adaptation. *CA Cancer J Clin.* 2020; DOI: 10.3322/caac.21616.

Tumban E. A Current Update on Human Papillomavirus-Associated Head and Neck Cancers. *Viruses.* 2019;11(10):922. doi:10.3390/v11100922.

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