

# Oral Cancer

## Causes and Symptoms & The Oral Cancer Exam

### What is oral cancer?

The term oral cancer includes cancers of the mouth and the pharynx (the back of the throat).

### What puts someone at risk for developing oral cancer?

**Tobacco and alcohol use.** Most cases of oral cancer are linked to cigarette smoking, heavy alcohol use, or the use of both tobacco and alcohol together. *Using tobacco plus alcohol poses a much greater risk than using either substance alone.*

**HPV.** Infection with the sexually transmitted human papillomavirus (specifically the HPV 16 type) has been linked to a subset of oral cancers.

**Age.** Risk increases with age. Oral cancer most often occurs in people over the age of 40.

**Sun exposure.** Cancer of the lip can be caused by sun exposure.

**Diet.** A diet low in fruits and vegetables may play a role in oral cancer development.

### What are the possible signs and symptoms of oral cancer?

- A sore, irritation, lump or thick patch in the mouth, lip, or throat
- A white or red patch in the mouth
- A feeling that something is caught in the throat
- Difficulty chewing or swallowing
- Difficulty moving the jaw or tongue
- Numbness in the tongue or other areas of the mouth
- Swelling of the jaw that causes dentures to fit poorly or become uncomfortable
- Pain in one ear without hearing loss

A person who has any of these symptoms for more than 2 weeks should see a dentist or doctor for an oral cancer exam. Most often, symptoms like those listed above do not mean cancer. An infection or another problem can cause the same symptoms. *But it's important to have the symptoms checked out—because if it is cancer, it can be treated more successfully if it's caught early.*

### What is the oral cancer exam?

An oral cancer examination can detect early signs of cancer. The exam is painless and takes only a few minutes.

During the exam, a dentist or doctor checks the face, neck, lips, tongue, mouth, and the back of the throat for possible signs of cancer.

## Additional Reading

### Review articles on oral cancer

Crozier E, Sumer BD. Head and Neck Cancer. *Med Clin North Am.* 94(5):1031–1046, 2010.

Mehanna H, Paleri V, West CM, Nutting C. Head and Neck Cancer—Part 1: Epidemiology, Presentation, and Prevention. *BMJ* 341:c4684, 2010.

Mehanna H, West CM, Nutting C, Paleri V. Head and Neck Cancer—Part 2: Treatment and Prognostic Factors. *BMJ* 341:c4690, 2010.

### Tobacco and alcohol use & oral cancer

Goldstein BY, Chang SC, Hashibe M, La Vecchia C, Zhang ZF. Alcohol Consumption and Cancers of the Oral Cavity and Pharynx from 1988 to 2009: An Update. *Eur J Cancer Prev.* 19(6):431–465, 2010.

International Agency for Research on Cancer Working Group on the Evaluation of Carcinogenic Risks to Humans. IARC Monographs on the Evaluation of Carcinogenic Risks to Humans. Volume 100. A Review of Human Carcinogens. E. Personal Habits and Indoor Combustions. Lyons, 2012.

Lubin JH, Purdue M, Kelsey K, Zhang ZF, Winn D, Wei Q, Talamini R, Szeszenia-Dabrowska N, Sturgis EM, Smith E, Shangina O, Schwartz SM, Rudnai P, Neto JE, Muscat J, Morgenstern H, Menezes A, Matos E, Mates IN, Lissowska J, Levi F, Lazarus P, La Vecchia C, Koifman S, Herrero R, Franceschi S, Wünsch-Filho V, Fernandez L, Fabianova E, Daudt AW, Maso LD, Curado MP, Chen C, Castellsague X, Brennan P, Boffetta P, Hashibe M, Hayes RB. Total Exposure and Exposure Rate Effects for Alcohol and Smoking and Risk of Head and Neck Cancer: A Pooled Analysis of Case-control Studies. *Am J Epidemiol.* 170(8):937–947, 2009. (Epub 9/10/2009).

Pelucchi C, Gallus S, Garavello W, Bosetti C, La Vecchia C. Alcohol and Tobacco Use, and Cancer Risk for Upper Aerodigestive Tract and Liver. *Eur J Cancer Prev.* 17(4):340–344, 2008.

### HPV and oral cancer

Allen CT, Lewis JS Jr., El-Mofty SK, Haughey BH, Nussenbaum B. Human Papillomavirus and Oropharynx Cancer: Biology, Detection and Clinical Implications. *Laryngoscope* 120(9):1756–1772, 2010.

Curado MP, Boyle P. Epidemiology of head and neck squamous cell carcinoma not related to tobacco or alcohol. *Curr Opin Oncol.* 25(3):229–234, 2013.

International Agency for Research on Cancer Working Group on the Evaluation of Carcinogenic Risks to Humans. IARC Monographs on the Evaluation of Carcinogenic Risks to Humans. Volume 100. A Review of Human Carcinogens. B. Biological Agents. Lyons, 2012.

Joseph AW, D'Souza G. Epidemiology of human papillomavirus-related head and neck cancer. *Otolaryngol Clin North Am.* 45(4):739–764, 2012.

Marur S, D'Souza G, Westra WH, Forastiere AA. HPV-associated Head and Neck Cancer: A Virus-related Cancer Epidemic. *Lancet Oncol* 11(8):781–789, 2010. (Epub 5/05/2010).

Stelow EB, Jo VY, Stoler MH, Mills SE. Human Papillomavirus-associated Squamous Cell Carcinoma of the Upper Aerodigestive Tract. *Am J Surg Pathol*. 34(7):e15–24, 2010.

Wu X, Watson M, Wilson R, Saraiya M, Cleveland J, Markowitz L. Human Papillomavirus–Associated Cancers–United States, 2004–2008. *MMWR* 61(15):258–261, 2012.

### **Age and oral cancer**

Howlader N, Noone AM, Krapcho M, Garshell J, Neyman N, Altekruse SF, Kosary CL, Yu M, Ruhl J, Tatalovich Z, Cho H, Mariotto A, Lewis DR, Chen HS, Feuer EJ, Cronin KA (eds). *SEER Cancer Statistics Review, 1975-2010*, National Cancer Institute. Bethesda, MD, [http://seer.cancer.gov/csr/1975\\_2010/](http://seer.cancer.gov/csr/1975_2010/), based on November 2012 SEER data submission, posted to the SEER web site, 2013.

### **Sun exposure and cancer of the lip**

Gallagher RP, Lee TK, Bajdik CD, Borugian M. Ultraviolet radiation. *Chronic Dis Can*. 29 Suppl 1:51–68, 2010.

International Agency for Research on Cancer Working Group on the Evaluation of Carcinogenic Risks to Humans. IARC Monographs on the Evaluation of Carcinogenic Risks to Humans. Volume 100. A Review of Human Carcinogens. D. Radiation. Lyons, 2009.

Silverman S Jr. Epidemiology. In: Oral Cancer. 3rd ed. Silverman S Jr. (ed). Atlanta, GA: American Cancer Society. 1989, 1–7.

### **Diet and nutrition & oral cancer**

Bradshaw PT, Siega-Riz AM, Campbell M, Weissler MC, Funkhouser WK, Olshan AF. Associations between dietary patterns and head and neck cancer: the Carolina head and neck cancer epidemiology study. *Am J Epidemiol*. 175(12):1225–1233, 2012.

Chainani-Wu N, Epstein J, Touger-Decker R. Diet and Prevention of Oral Cancer: Strategies for Clinical Practice. *J Am Dent Assoc*. 142(2):166–169, 2011.

Edefonti V, Hashibe M, Ambrogi F, Parpinel M, Bravi F, Talamini R, Levi F, Yu G, Morgenstern H, Kelsey K, McClean M, Schantz S, Zhang Z, Chuang S, Boffetta P, La Vecchia C, Decarli A. Nutrient-based dietary patterns and the risk of head and neck cancer: a pooled analysis in the International Head and Neck Cancer Epidemiology Consortium. *Ann Oncol*. 23(7):1869–1880, 2012.

This fact sheet was developed by the National Institute of Dental and Craniofacial Research with the National Cancer Institute, components of the National Institutes of Health in Bethesda, Md.

**For additional copies of this fact sheet contact:**

National Institute of Dental and Craniofacial Research  
National Oral Health Information Clearinghouse  
1 NOHIC Way  
Bethesda, Maryland  
20892-3500  
1-866-232-4528  
<http://www.nidcr.nih.gov>

This publication is not copyrighted.  
Make as many copies as you need.



NIH Publication No: 13-6424  
August 2013

*NIH...Turning Discovery Into Health®*