

# Oral Cancer Screenings: If Not You, Then Who?

## Karen Davis, RDH, BSDH

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1. [www.Oralcancerfoundation.org](http://www.Oralcancerfoundation.org) - non-profit, information, resources, products
2. Fact Sheets on HPV and Oropharyngeal Cancer:  
<http://www.cdc.gov> (HPV)
3. [www.Oralcancercause.org](http://www.Oralcancercause.org) - non-profit to raise awareness and assist those in financial need facing oral cancer
- 4.
5. [www.SixStepsScreening.org](http://www.SixStepsScreening.org) - Eva Grayzel, oral cancer survivor
6. Kim Miller, RDH Comprehensive Head and Neck Exam  
[www.youtube.com](http://www.youtube.com)
7. [www.cancer.gov](http://www.cancer.gov) - American Cancer Society (Oral Cavity and Oropharyngeal Cancer)

### Oral Cancer Facts/Myths

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1. Based upon annual trends, the number of individuals diagnosed with Oral and Oropharyngeal Cancer in 2018 will be:
  - A. 30,000 -35,000 people
  - B. 40,000 – 45,000 people
  - C. Over 50,000 people
2. Of those newly diagnosed with oral cancer this year, what percentage will be alive in 5 years in the U.S. based upon current trends?
  - A. 70%
  - B. 65%
  - C. 57%
  - D. <50%
3. How many types of HPV are there?
  - A. 18
  - B. 30-40
  - C. Over 100

4. How many strands of HPV are involved in sexual transmission?
  - A. 18
  - B. 30-40
  - C. Over 100
  
5. Which HPV strands are associated with squamous cell carcinoma of the oropharynx?
  - A. HPV 6 & 11
  - B. HPV 16 & 18
  
6. Which HPV strands are associated with genital warts?
  - A. HPV 6 & 11
  - B. HPV 16 & 18
  - C. All strands
  
7. The likelihood of transmitting HPV from French kissing is:
  - A. Impossible
  - B. Almost negligible
  - C. Unknown
  - D. Certain
  
8. HPV exposure can precede Oropharyngeal cancer by 10 years or more.
  - A. True
  - B. False
  
9. Oropharyngeal cancer due to HPV generally has a poorer prognosis than oral cancer due to tobacco and alcohol usage.
  - A. True
  - B. False
  - C. Undetermined
  
10. On any given day, what number of Americans aged 18 or younger smokes their first cigarette?
  - A. 2500
  - B. 3200
  - C. 10,000
  
11. According to the 2016 Report of the Surgeon General, e-cigarettes are now the most commonly used tobacco product among youth, surpassing conventional cigarettes in 2014.
  - A. True
  - B. False

12. From 2011 – 2015 use of Hookahs were on the decline in middle and high school aged youths.
- A. True
  - B. False
13. What percentage of Americans receives an oral cancer examination annually according to the National Cancer Institute?
- A. <20%
  - B. 25%
  - C. >30%
14. What month is National Oral Cancer Awareness Month?
- A. April
  - B. June
  - C. September
15. Which is the fastest growing segment of the oral cancer population?
- A. Smokers over the age of 50
  - B. Non-smokers under the age of 50
  - C. Hookah smokers under age 18
16. Smokeless tobacco contains up to \_\_\_\_\_ the amount of nicotine as cigarettes.
- A. 4 times
  - B. 5 times
  - C. 10 times
17. The water in hookah pipes actually filters the tobacco.
- A. True
  - B. False
18. The FDA ruling to regulate electronic nicotine delivery systems (ENDS) and all tobacco products went into effect August 8, 2016, but manufactures can continue selling products that are unregulated for up to 3 years.
- A. True
  - B. False
19. A diet high in fruits and vegetables has been shown to reduce the risk of oral cancer by \_\_\_\_\_%.
- A. 10
  - B. 30
  - C. 50

20. What color of lesions in the mouth has the highest risk of becoming malignant?
- A. Red
  - B. White
  - C. Grey

*What surprises you?*

## FIFTY FACTS ABOUT ORAL, HEAD & NECK CANCER FROM THE AMERICAN ACADEMY OF OTOLARYNGOLOGY – HEAD & NECK SURGERY

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[www.entnet.org](http://www.entnet.org)

- 1 Oral, Head and Neck Cancer most commonly refers to squamous cell carcinoma of the tongue, throat, and voice box. However, often, head and neck cancer also refers to other types of cancer that arises in the nasal cavity, sinuses, lips, mouth, thyroid glands, salivary glands, throat, or voice box.
- 2 HPV or human papillomavirus appears to be responsible for the rise in cancers of the oropharynx (tonsil and base of tongue) in younger nonsmokers and is related to oral sex.
- 3 Tobacco and alcohol use are the leading causes of mouth and voice box cancers.
- 4 Cancers of the head and neck account for 6 percent of all malignancies in the United States.
- 5 Caucasians currently have the highest incidence rates of head and neck cancers, although death is still highest in African Americans.
- 6 Tobacco (including smokeless tobacco) and alcohol use are very important risk factors for oral, head and neck cancers, particularly those of the tongue, mouth, throat and voice box. Chewing tobacco has been shown to cause mouth cancer. Human Papillomavirus may be related to over half of tonsil cancers.
- 7 Cigarette smoking increases your risk of head and neck cancer by 15 times compared to a non-smoker.
- 8 People who use both tobacco and alcohol are at greater risk than people who use them alone.
- 9 Oral, Head and Neck cancers tend to form in the areas where tobacco/alcohol use has the most contact. For example, where the cigarette sits on the lip, or where the chewing tobacco is placed in the mouth.
- 10 Environmental factors such as exposure to sunlight can cause skin cancer, melanoma including cancers of the lips.
- 11 A red or white patch in the mouth or a sore throat can be the first signs of cancers of the mouth and throat
- 12 Hoarseness or a change in the voice can be the first sign of cancer of the voice box.
- 13 The incidence of thyroid cancer has increased in all races and in both males

- and females in the past two decades.
- 14 Thyroid cancers account for over 55,000 new cancers each year in the US.
- 15 Over the past ten years, an increasing number of people with Human Papillomavirus (HPV) who were young, non-smokers have developed cancer of the tonsils and back of the tongue (tongue base).
- 16 Annually in the US, over 10,000 new cases of Oral, Head and Neck Cancer can be attributed to a particular strain of HPV.
- 17 66% of the time, oral cancers will be found as late stage three and four diseases.
- 18 Men are affected about twice as often as women with oral cancer.
- 19 Approximately 110,000 people are diagnosed with Oral, Head and Neck Cancer every year in the United States.
- 20 Worldwide, over 550,000 new cases of Oral, Head and Neck cancer are diagnosed each year.
- 21 Signs of Oral, Head and Neck Cancer: a sore in your mouth that doesn't heal, sore throat, lumps or patches in your mouth, trouble swallowing, changes in your voice, and a lump in your neck.
- 22 Most oral cancers form on the lips, tongue, or floor of the mouth. They also may happen inside your cheeks, on your gums or on the roof of your mouth.
- 23 Oropharyngeal cancer is different from oral cancer. Oropharyngeal cancers are related to HPV usually and occur in the tonsil or base of tongue while oral cancers are in the mouth and usually caused by tobacco use.
- 24 Most head and neck cancers can be prevented.
- 25 Head and neck cancers often spread to the lymph nodes of the neck.
- 26 It is estimated that approximately \$3.2 billion is spent in the United States each year on treatment of head and neck cancers.
- 27 Surgery and radiation therapy are the most common treatments designed to stop the spread of cancer by killing and/or removing the cancerous cells. Chemotherapy may be added as an adjunct in certain situations for advanced disease.
- 28 Treatment of head and neck cancers requires the assistance of many different professionals, such as surgeons, radiation oncologists, medical oncologists, dentists, nutritionists, and speech therapists.
- 29 About half of throat cancers occur in the larynx (voice box).
- 30 Because of the location of head and neck cancer, it often affects breathing, eating, drinking, voice, speaking, and appearance.
- 31 50% of people with head and neck cancers have very advanced cases by the time they first see a doctor.
- 32 In the US, a new head and neck cancer case is diagnosed every 10 minutes and a person dies from this disease every 45 minutes.
- 33 If an adult has a neck mass that does not go away, a needle biopsy and/or CAT Scan may be necessary to diagnose the cause.
- 34 Red patches in the mouth that are persistent, and do not have an obvious cause can develop into cancer about 20-30% of the time. Removal is highly recommended.

- 35 Thyroid cancer can develop in anyone, although there often is a family history or exposure to radiation involved. Salivary glands also do not seem to be related to any particular cause.
- 36 Only about 1 in 20 thyroid nodules are cancerous.
- 37 The two most common types of thyroid cancer are called papillary carcinoma and follicular carcinoma.
- 38 Thyroid cancer is more common in women than in men.
- 39 In general, thyroid cancer is one of the least deadly cancers of the head and neck.
- 40 The most common type of cancer in the nasal cavity and paranasal sinuses is squamous cell carcinoma. It makes up a little over a half of the cancers.
- 41 Cancers of the nasal and paranasal cancers are rare; about 2,000 people develop these cancers every year.
- 42 Sinus cancer should be considered when someone has constant nose bleeds, numbness of the cheek, facial swelling or pain.
- 43 People who work in environments with dust, glues, formaldehyde, mustard gas, certain heavy metals, and radium are at higher risk for developing nasal and paranasal cancer.
- 44 Salivary cancer is not just one disease. There are several different glands found inside and near the mouth.
- 45 Several types of cancers can start in the salivary glands.
- 46 Every year there are about 2 cases per every 100,000 people of salivary cancer.
- 47 The average age that salivary cancer is found is 64.
- 48 Once cancer is in the lymph nodes, it is more likely to spread throughout the body.
- 49 Patients with cancers treated in the early stages may have little post treatment disfigurement.
- 50 Oral, head and neck cancer awareness week (OHANCAW) can be started by anyone, in any town or clinic, and can help educate people on the early diagnosis of these cancers.

## Risk Factors for Oral Cancer

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HPV

Cigarette, Cigar & Pipe Smoking

Smokeless Tobacco

Electronic Nicotine Delivery Systems

Tobacco & Alcohol Synergy

Marijuana

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Gender/Race

Poor Nutrition

Family History

Sun/UV Exposure

Periodontal Disease

Unknown

## Tobacco Cessation 1-800-QUIT NOW

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According to the Center for Disease Control Stopping Smoking is Related to the Following Health Benefits:

- Lowered risk for lung cancer and many other types of cancer.
- Reduced risk for heart disease, stroke and peripheral vascular disease
- Reduced heart disease within 1-2 years of quitting
- Reduced respiratory symptoms such as coughing, wheezing, and shortness of breath
- Reduced risk of developing some lung diseases such as COPD, one of the leading causes of death in the U.S.
- Reduced risk of infertility in women of childbearing age.

Proven methods to help patients quit smoking:

- Assistance/help from a healthcare provider
- Individual, group or telephone counseling
- Inclusion of nicotine replacement products
- Counseling & medication together

Motivational Interviewing in Healthcare – Helping Patients Change Behavior By Stephen Rollnick, William Miller & Christopher Butler

Topical antioxidants can increase cell migration in the presence of nicotine in vitro.  
Journal of Periodontology 2010

Oxidative stress is significantly higher and antioxidant capacity significantly lower in patients with oral pre-malignant lesions compared to controls  
Archives of Oral Biology 2012

[www.periosciences.com](http://www.periosciences.com) Topical antioxidants

## Symptoms of Oral Cancer & Oropharyngeal Cancer

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A sore in the mouth that does not heal (most common symptom)  
Pain in the mouth that doesn't go away (also very common)  
A lump or thickening in the cheek  
A white or red patch on the gums, tongue, tonsil, or lining of the mouth  
A sore throat or a feeling that something is caught in the throat that doesn't go away  
Trouble chewing or swallowing  
Trouble moving the jaw or tongue  
Numbness of the tongue or other area of the mouth  
Swelling of the jaw that causes dentures to fit poorly or become uncomfortable

Loosening of the teeth or pain around the teeth or jaw  
Voice changes  
A lump or mass in the neck  
Weight loss  
Constant halitosis

## Protocols for Oral Cancer Screening & Lesion Detection

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- Health History Review
- Interview/Risk Assessment
- Intra/Extraoral Exam / Adjunctive Screening Devices
- Differential Diagnosis: Re-evaluate 2 weeks
- Brush Biopsy or Biomarker Test or Referral for Biopsy

Lymph nodes of the head & neck to assess in head & neck examinations – Email:  
[Kimmlerkrm@gmail.com](mailto:Kimmlerkrm@gmail.com)

## Assessments & Diagnosis

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Lexicomp VisualDX – web based diagnostic clinical decision support system  
[www.lexicomp.com](http://www.lexicomp.com)

Malignancy of the Oral Cavity:

Squamous cell carcinoma – 95% of all oral cavity cancers. Occurs most often on the lip, tongue and floor of the mouth. Begins at the squamous layer of the epithelium and invades deeper tissues.

- Infiltrative – Cancer is growing into the deeper layers of the oral cavity.
- Exophytic – Cancer is growing outwards from the surface of the oral cavity.
- Verrucous – Cancer has a wart-like appearance.



- Ulcerated – Cancer appears as an open sore.
- Flat – Cancer appears as an abnormal area in the lining of the oral cavity.

Precancerous Lesions of the Oral Cavity:

**Leukoplakia** – white plaques of questionable risk. 3 – 17% of people develop a malignancy from leukoplakia with 15 years of developing it. Active surveillance advised.

**Erythroplakia/Erythema** – reddening of the mucous membranes, often in patches, often raised, and easily bleeds when scraped. 51% develop into squamous cell carcinoma. SaliMark™, Brush Biopsy, active surveillance & frequent monitoring and/or surgical removal.

Erythroleukoplakia – Mixture of red and white mucous membrane tissue. Risk of becoming malignant between risk for leukoplakia and erythroplakia.

**Proliferative Verrucous Leukoplakia (PVL)** – Aggressive form of leukoplakia generally in older women. Generally multiple lesions that do not resolve. 87% become malignant. Can recur even after surgery.

**Oral Submucous Fibrosis** – generally related to scar tissue forming in the oral cavity. Most common in people that chew betel nut. 7 – 13% become malignant.

**Dysplasia** – abnormal growth or development of cells with a potential to become malignant. Dysplasias from biopsies are quantified as mild, moderate, severe, carcinoma in situ, or invasive carcinomas.

## Communication Tips & Adjunctive Screening Devices

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1. Introduce technology while patient is in the upright position, showing them the device
2. Be concise. Avoid technical terms.
3. Make benefit statements. (“Early detection”, “Able to see more than with the naked eye”)
4. Inform patient of what you are assessing to alleviate anxiety
5. Be prepared to answer questions (Role play for sensitive topics!)

<b>Technology</b>	<b>Mode of Operation</b>	<b>Features</b>
VizilitePlus® w/ Tblue® <a href="http://www.vizilite.com">www.vizilite.com</a>	Acetic-Acid Pre-rinse Chemiluminescence Light & TBlue stain	Staining enhances margins Used inside the oral cavity
VELscope® VX <a href="http://www.VELscope.com">www.VELscope.com</a>	Blue Spectrum Fluorescence	Adapter for photo documentation Used outside the oral cavity
Identafi® <a href="http://www.Identafi.net">www.Identafi.net</a>	White & Violet Fluorescence Green-Amber Reflectance	Three light spectrums for comparison Used inside the oral cavity
D.O.E. Dental Oral Exam <a href="http://www.dentlight.com">www.dentlight.com</a>	White LED & Violet Fluorescence	Curing Light & OCS device Whitening & Caries Detection Used inside the mouth
Oral ID <a href="http://www.oralid.com">www.oralid.com</a>	Blue Light Fluorescence	No Disposables Used outside the oral cavity
GOCCLES <a href="http://www.goccles.com">www.goccles.com</a>	Eyewear with Optical Filter	Curing light to fluoresce tissue Used inside the oral cavity

OralCDX brush biopsy by CDX Diagnostics – in office preliminary biopsy. Test results in 1 week

[www.cdxdiagnostics.com](http://www.cdxdiagnostics.com)

CytID by Forward Science – Liquid cytology brush biopsy – in office preliminary biopsy. HPV testing optional

[www.forwardscience.com](http://www.forwardscience.com)

SaliMark™ Salivary Test by PeriRx to test for biomarkers of oral squamous cell carcinoma

[www.perirx.com](http://www.perirx.com)

ONCalert® Oral Cancer RAPID test – oral rinse test by Vigilant Biosciences for biomarkers of oral squamous cell carcinoma. Text results in 20 minutes (Not available in CA or US yet)

[www.Oncalert.com](http://www.Oncalert.com)

OraRisk HPV Salivary Test by OralDNA Labs – Salivary test for HPV virus & strand

[www.oraldna.com](http://www.oraldna.com)

### **ADA CDT 2018 Codes:**

D0417-Collection & preparation of salivary sample for laboratory diagnostic testing

D0418-Analysis of saliva sample for diagnostic purposes

D0423 – Genetic tests for susceptibility to diseases

D0431-Adjunctive pre-diagnostic test that aids in detection of mucosal abnormalities including premalignant and malignant lesions

D7288-Brush biopsy transepithelial sample collection

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### **Practice Considerations**

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What adjunctive device do you want to implement?

Will you charge a fee? If so, what will your fee be?

Who will perform the screenings?

How often will you recommend patients have screenings with adjunctive devices?

Will you have a decline form for patients refusing adjunctive screenings?

How will you document clinical findings?

Who will you refer to for advanced assessments/biopsy?

What follow-up do you need in place for patients referred for biopsy?