

# DETECTING ORAL CANCER

A Guide for Health Care Professionals

## INCIDENCE AND SURVIVAL

Oral or pharyngeal cancer will be diagnosed in an estimated 30,000 Americans this year, and will cause approximately 8,000 deaths. On average, only half of those with the disease will survive more than five years.

## THE IMPORTANCE OF EARLY DETECTION

*Early Detection Saves Lives*

With early detection and timely treatment, deaths from oral cancer could be dramatically reduced.

The five-year survival rate for those with localized disease at diagnosis is 76 percent compared with only 19 percent for those whose cancer has spread to other parts of the body.

Early detection of oral cancer is often possible. Tissue changes in the mouth that might signal the beginnings of cancer often can be seen and felt easily.

## WARNING SIGNS

*Lesions that might signal oral cancer*

Two lesions that could be precursors to cancer are leukoplakia (white lesions) and erythroplakia (red lesions). Although less common than leukoplakia, erythroplakia and lesions with erythroplakic components have a much greater potential for becoming cancerous. Any white or red lesion that does not resolve itself in two weeks should be reevaluated and considered for biopsy to obtain a definitive diagnosis.

*Other possible signs/symptoms of oral cancer*

Possible signs/symptoms of oral cancer that your patients may report: a lump or thickening in the oral soft tissues, soreness or a feeling that something is caught in the throat, difficulty chewing or swallowing, ear pain, difficulty moving the jaw or tongue, hoarseness, numbness of the tongue or other areas of the mouth, or swelling of the jaw that causes dentures to fit poorly or become uncomfortable.

If the above problems persist for more than two weeks, a thorough clinical examination and laboratory tests, as necessary, should be performed to obtain a definitive diagnosis. If a diagnosis cannot be obtained, referral to the appropriate specialist is indicated.

## RISK FACTORS

*Tobacco/Alcohol Use*

Tobacco and excessive alcohol use increase the risk of oral cancer. Using both tobacco and alcohol poses a much greater risk than using either substance alone.

*Sunlight*

Exposure to sunlight is a risk factor for lip cancer.

*Age*

Oral cancer is typically a disease of older people usually because of their longer exposure to risk factors. Incidence of oral cancer rises steadily with age, reaching a peak in persons aged 65-74. For African Americans, incidence peaks about 10 years earlier.

*Gender*

Oral cancer strikes men twice as often as it does women.

## WHAT YOU CAN DO

A thorough head and neck examination should be a routine part of each patient's dental visit. Clinicians should be particularly vigilant in checking those who use tobacco or excessive amounts of alcohol.

- **EXAMINE** your patients using the head and neck examination described here
- **TAKE A HISTORY** of their alcohol and tobacco use
- **INFORM** your patients of the association between tobacco use, alcohol use, and oral cancer
- **FOLLOW-UP** to make sure a definitive diagnosis is obtained on any possible signs/symptoms of oral cancer

## THE EXAM

This exam is abstracted from the standardized oral examination method recommended by the World Health Organization. The method is consistent with those followed by the Centers for Disease Control and Prevention and the National Institutes of Health. It requires adequate lighting, a dental mouth mirror, two 2 x 2 gauze squares, and gloves; it should take no longer than 5 minutes.

## THE EXAMINATION



Figure 1—Face



Figure 2—Lips



Figure 3—Labial mucosa



Figure 4—Labial mucosa



Figure 5—Right Buccal mucosa



Figure 6—Left Buccal mucosa



Figure 7—Gingiva



Figure 8—Tongue dorsum



Figure 9—Tongue left margin



Figure 10—Tongue right margin



Figure 11—Tongue ventral



Figure 12—Floor



Figure 13—Hard palate



Figure 14—Oropharynx



Figure 15—Palpation

The examination is conducted with the patient seated. Any intraoral prostheses are removed before starting. The extraoral and perioral tissues are examined first, followed by the intraoral tissues.

### I. The Extraoral Examination

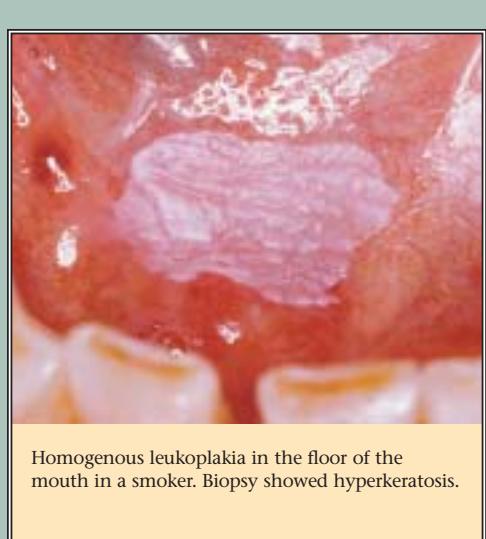
- ◆ FACE: (Figure 1)
- II. Perioral and Intraoral Soft Tissue Examination

### ◆ LIPS:

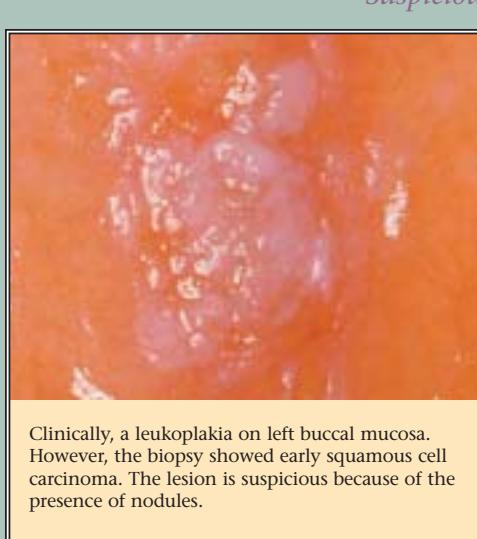
- ◆ LABIAL MUCOSA: (Figures 3 and 4)
- ◆ BUCCAL MUCOSA: (Figures 5 and 6)
- ◆ GINGIVA: (Figure 7)

### ◆ TONGUE:

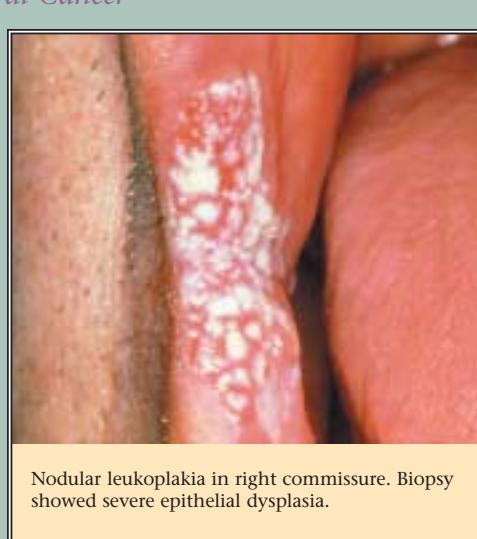
- ◆ FLOOR: (Figure 12)
- ◆ PALATE: (Figures 13-15)



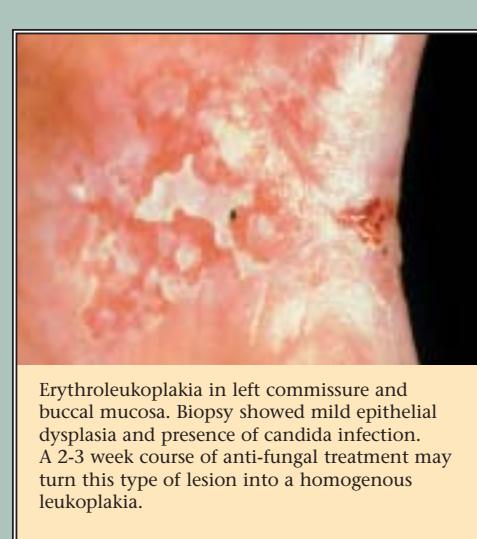
Homogenous leukoplakia in the floor of the mouth in a smoker. Biopsy showed hyperkeratosis.



Clinically, a leukoplakia on left buccal mucosa. However, the biopsy showed early squamous cell carcinoma. The lesion is suspicious because of the presence of nodules.



Nodular leukoplakia in right commissure. Biopsy showed severe epithelial dysplasia.



Erythroleukoplakia in left commissure and buccal mucosa. Biopsy showed mild epithelial dysplasia and presence of candida infection. A 2-3 week course of anti-fungal treatment may turn this type of lesion into a homogenous leukoplakia.

**For copies of this poster contact:**  
National Oral Health Information Clearinghouse  
1 NOHIC Way  
Bethesda, Maryland 20892-3500  
(301) 402-7364  
<http://www.nohic.nidcr.nih.gov>

U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES  
National Institutes of Health  
National Institute of Dental  
and Craniofacial Research



Reprinted December 2002

# DETECTING

# *A Guide for*

**ORAL**

Health Care

# CANCER

## *Professionals*

NATIONAL INSTITUTES OF HEALTH  
National Institute of  
Dental and Craniofacial Research

**PALATE:** (Figure 13 and 14) With the tongue still elevated, inspect the floor of the mouth for changes in color, texture, swellings, or other surface abnormalities.

**FLOOR:** (Figure 11) Then examine the ventral surface of the tongue to detect growths. Palpate the tonsils, lateral borders, aspects of the tongue's lateral border.

**FIGURE 12:** A piece of gauze will assist full pronusion and a quick examination of the more posterior aspect of the tongue's lateral border.

**FIGURE 15:** Bimanually palpate the floor of the mouth for mucosal or facial tissues that seem to be the mouth for any abnormalities. All the normal should be palpated.

**TONGUE:** (Figure 8) With the patient's head in a slightly forward position, examine the palatal and lingual aspects of the tongue and the oral mucosa. Note the following:

- Color:** Normal pink color.
- Texture:** Smooth, moist surface.
- Size:** Normal size.
- Shape:** Normal shape.
- Position:** Normal position.
- Movements:** Normal movements.
- Surface:** Normal surface.
- Swelling:** No swelling.
- Ulceration:** No ulceration.
- Cracks:** No cracks.
- Warts:** No warts.
- Lesions:** No lesions.

If any abnormalities are found, further examination of the mouth and throat should be performed.

**Figures 9 and 10:** These figures show the normal tongue and mouth.

**LABIAL MUCOSA:** (Figures 3 and 4) With the patient's mouth closed and open, Note the color, texture and lower vermilion borders. Observe the lips with the patient's mouth both closed and open. Note the color, texture and any surface abnormalities of the upper and lower vermilion borders.

**BUCCAL MUCOSA:** (Figures 5 and 6) Retract the buccal mucosa. Examine first the right then the left buccal mucosa extending from the buccal mucosa. Examine first the right mandibular vestibule. Observe the color, texture, and any swelling or other abnormalities of the vestibular mucosa and frenum and the maxillary vestibule. Observe the color, texture and any swelling of the other abnor-

**MUCOSA:** (Figure 7) Begin examination by sure that the commissures of the mucosa, marking the corners of the mouth, are normal. Note any change in pigmentation, color, texture, mobility and secretion tonus of the pilifer. Note any change in anterior tonsillar pillar. Note any change in the tonsillar pillars. Note any change in the tonsillar pillars during the retraction of the cheek.

The physician and his or her dental chairperson place the patient in a supine position, back straight, head slightly flexed forward, chin tucked in. The physician's hands are positioned to support the patient's head and neck. The dental chair is lowered so that the patient's chin is approximately level with the dental chair's backrest. The dental chair is then tilted back until the patient's head is approximately 30° from the horizontal. The dental chair is then lowered until the patient's head is approximately 30° from the horizontal. The dental chair is then lowered until the patient's head is approximately 30° from the horizontal.

SOFI ISSUE EXAMINATION

## **II. PERIORAL AND INTRORAL SOFT TISSUE EXAMINATION**

mobility and consistency. A recommended order of examination includes the preauricular

any enlarged nodes, and if detected, their node areas are bilaterally palpated to detect and/or color change. The regional lymph skin such as crusts, fissuring, "growths", "honeycombing", or changes in the

neck. The face, ears, and neck are observed.

**FACE:** (Figure 1) The extraorbital assessment includes an inspection of the face, head, and neck.

**1. THE EXTRAOURAL EXAMINATION**

♦ EACE (Figure 1) The extraooral assessment

examined first, followed by the intraooral tissues.

examined first. The extraooral and perioperative issues are

1. Any initial plausibilities (deltitudes or L-enturies) are removed before starting the

## **EXAM REVIEW**