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A Role for Health Care Professionals in the Fight Against Oral Cancer
Let’s First Look at the Problem
Oral and oropharyngeal cancer will account for up to 31,000 new cancer cases and 8,000 to 9,000 deaths, representing 2% to 3% of all cancer deaths.
• Five-year relative cancer survival rates 56% for whites, 35% for blacks, and 54% for all races.
Ninety percent of oral cancers are squamous cell carcinoma. Five percent are salivary gland malignancies, 5% melanomas, sarcomas, and lymphomas.
To reduce morbidity and mortality associated with oral and oropharyngeal cancer we must focus on primary prevention and early detection.
Known risk factors for squamous cell carcinoma:

- long-term tobacco use
- alcohol use
- immunosuppression
- use of the betel (areca) quid
- long-term sun exposure
- recent studies indicate infection with human papillomavirus.
- erosive lichen-planus
- lack of comprehensive oral cancer examination
- nutrition
• 1/3 of cases are diagnosed in the early stages.
• 2/3 has already spread regionally or has metastasized.
• N.J. Data: Incidence of disease
  – black males, 23.5 per 100,000**
  – white males, 14.0 per 100,000**
  – black females, 5.1 per 100,000***
  – white females, 5.5 per 100,000**
• The national cost to treat oral and oropharyngeal cancer is approximately 1.6 billion dollars annually.

Factoring in the costs related to post-operative job loss and other post-operative burdens. The total national cost of this disease rises to almost 8 billions dollars per year.
Now Let’s Solve the Problem
Comprehensive Oral Cancer Exam
Tools and Time

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 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.
Grasping the tip of the tongue with a piece of gauze will assist full protrusion and will aid examination of the more posterior aspects of the tongue's lateral borders.
Training Ourselves to Identify Oral Manifestations of Pathology
## What to Expect in Your Practice

<table>
<thead>
<tr>
<th>Known benign entities</th>
<th>Harmless appearing, white or red spots of unknown origin</th>
<th>Highly suspicious lesions</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Presentation</strong></td>
<td><strong>Frequency in average dental practice</strong></td>
<td><strong>Action</strong></td>
</tr>
<tr>
<td>fibromas, mucoceles,</td>
<td>Several times each day</td>
<td>Observe or treat</td>
</tr>
<tr>
<td>linea alba, Fordyce</td>
<td></td>
<td>Brush biopsy</td>
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<tr>
<td>granules, aphthous</td>
<td></td>
<td>Scalpel biopsy</td>
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<td>ulcers, traumatic ulcers, herpes labialis, amalgam tattoos</td>
<td>About twice a week</td>
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<tr>
<td></td>
<td>Once or twice each year</td>
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Let’s First Address Oral Manifestations of Lesions of Local and Systemic Etiology, but not Cancer
Oral Cancer
Oral Mucosal Abnormalities of Low Suspicion

(red & white spots)
The Brush Biopsy
OralCDx Brush Biopsy Instrument

BRUSH BIOPSY
Complete Transepithelial Tissue Sample

SPECIMEN
Superficial
Intermediate
Basal
OralCDx Results

Classification

“negative”: no cellular abnormalities

Abnormal Results:

“positive”: definitive cellular evidence of epithelial dysplasia or carcinoma

“atypical”: abnormal epithelial changes warranting further investigation
A Fail-Safe Procedure

• OralScan Laboratories automatically confirms the adequacy of each brush biopsy specimen and determines if cells from all three layers of the epithelium have been sampled.

• Inadequate specimens, which most commonly result from either insufficient pressure or too few rotations of the brush, should be repeated - lab analysis repeated at no charge.