

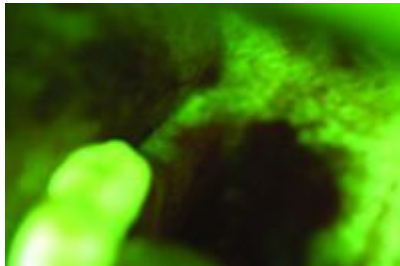
## Are You Looking But Not Seeing?

By: Howard S. Glazer, DDS, FAGD

It is well accepted that no dental examination is complete without an examination of the oral mucosa for oral cancer. The incidence of oral cancer is on the rise amongst women, younger adults, non-alcoholics, and non-smokers.<sup>1-6</sup> Oral cancer can be as fatal as melanoma (skin cancer) or cervical cancer. Since these "new-comers" do not fit the "typical" profile we were taught in school, we must be more vigilant.



When conducting the examination, I often tell my patients that I am checking for "lumps, bumps, spots, dots and patches that don't belong." In actuality, this is a preventive examination. It can take up to four years for an aplastic / dysplastic cell to penetrate the basal cell layer. And while these aforementioned types of lesions may appear to be harmless, some may be found to be pre-cancerous or even cancerous. So early detection is prevention! It is an old adage that "what you don't look for you can't see."



When dealing with oral cancer prevention, failure to look can cause irreparable harm. Oral cancer prevention examinations should and can be conducted by the dentist and/or hygienist, on each patient, at the initial examination and subsequent continuing care (recall) appointments.

To facilitate the examination, visualization of the oral cavity is key. The use of the VELscope by LED Dental is an ideal tool for such an examination. This is a wonderful tool that is best explained as a light that fluoresces the tissue to an "apple green" color and anything untoward appears a brownish-black color. As seen by the illustration of the currency note with and without use of a special light, the naked eye can not always detect abnormalities. In the illustrations of the intra-oral examination, we can see areas with the VELscope that might otherwise go un-noticed and perhaps, un-treated, with severe consequences.

If such an abnormal spot, dot, lump, bump, or patch appears this darkish color, I would advocate further investigation using the brush biopsy technique along with computer assisted analysis, available from CDx Laboratories. This is far more comfortable procedure than a scalpel biopsy. The procedure is quite simple: moisten the sterile brush with saliva and rotate with firm pressure against the suspected area and a part of the clean surrounding border.



Once this step is completed, transfer the collected sample to a microscope slide in a figure eight motion and apply the fixative (all supplied in the kit). Lastly, simply wait 15 minutes and place the slide in the protective case and place the slide case and completed paperwork into the pre-paid mailer. Results are generally faxed to you office in about 72 hours after the lab receives the specimen. With this procedure I tell my patients that while it is probably no cause for concern, I will do the brush biopsy "just to be sure."

It is unfortunate that definitive diagnosis of oral pre-cancers and early stage curable cancers are often delayed until the development of classic, advanced features of malignancy with poor prognosis.<sup>10-11</sup> Consequently, only half of all patients diagnosed with oral cancer survive more than five years. It is with this motivation that I will discuss how to conduct an oral cancer prevention examination.

The following is a review of the essentials of an oral cancer examination:

## Extraoral examination

This should include observation and palpation of the face and neck (Fig. 1). Observe any asymmetry, enlargement of lymph nodes, growths, color change and abnormality. Palpation should include the ramus, zygoma, TMJ and mandible. The lips should be observed and palpated for any nodular abnormalities, discolorations and growths.

## Intraoral Examination

The first part should include observation and palpation of the lips, labial, buccal, and lingual mucosa; commissures of the lips, gingiva, floor of the mouth, hard and soft palate, and the tongue.



The second part is conducted first with the room lights on, and then again room lights are dimmed for the examination with the VELscope. We begin with the examination of the labial and buccal mucosa, the patient should be examined in occlusion, and again with his/her mouth opened. At both times, the lips and cheeks should be retracted for maximum visibility. Examination of the gingiva should include the labial/ buccal and lingual/palatal surfaces

Examination of the tongue is best accomplished when it is protruded and held with a 2x2 gauze pad..

Once immobilized, you should inspect the dorsal and ventral surfaces as well as the lateral borders. A mouth mirror should be utilized where/ when necessary to fully visualize the area.



For the examination of the floor of the mouth, ask the patient to elevate the tongue. While placing one hand to support the external aspect of the floor of the mouth, use the other intraorally to palpate the floor for any nodularities. A mirror should be used to fully visualize the entire hard and soft palate with the patient's mouth wide open



Once the examination is complete, the patient should be informed of the findings. If any abnormalities are found, the patient should be informed that these spots are common and are found in about 10% of all patients.<sup>13-15</sup> The simple and painless brush biopsy should be used to evaluate these spots, "just to be sure" they do not require additional attention. Patients are easily reassured once they realize you are performing a procedure much in the same way a PAP smear or PSA is routinely performed for early cancer and pre-cancer detection and prevention. In short, dentistry can save lives. All that is required is seeing when looking!

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*Oral Health welcomes this original article.*

*Note: Figures E-L are images courtesy of the British Columbia Cancer Prevention Program.*

## REFERENCES

1. Schantz SP, Yu GP. Head and neck cancer incidence trends in young Americans, 1973-1997, with a special analysis for tongue cancer. *Arch Otolaryngol Head Neck Surg.* Mar 2002;128(3):268-274.

2. Shiboski CH, Shiboski SC, Silverman S, Jr. Trends in oral cancer rates in the United States, 1973-1996. *Community Dent Oral Epidemiol.* Aug 2000;28(4):249-256.
3. Llewellyn CD, Johnson NW, Warnakulasuriya KA. Risk factors for squamous cell carcinoma of the oral cavity in young people--a comprehensive literature review. *Oral Oncol.* Jul 2001;37(5):401-418.
4. Lingen M, Sturgis EM, Kies MS. Squamous cell carcinoma of the head and neck in nonsmokers: clinical and biologic characteristics and implications for management. *Curr Opin Oncol.* May 2001;13(3):176-182.
5. Corcoran TP, Whiston DA. Oral cancer in young adults. *J Am Dent Assoc.* Jun 2000;131(6):726.
6. Boyle, P, MacFarlane, G.J, Zheng, T, Maisonneuve, P, Evstifeeva, T, Scully, C. Recent advances in the epidemiology of head and neck cancer. *Current Opinion in Oncology* 1992; 4: 471-7.
7. Boyle, P, MacFarlane, G.J, Zheng, T, Maisonneuve, P, Evstifeeva, T, Scully, C. Recent advances in the epidemiology of head and neck cancer. *Current Opinion in Oncology* 1992; 4: 471-7.
8. Burzynski NJ, Firriolo FJ, Butters JM, Sorrell CL. Evaluation of oral cancer screening. *J Cancer Educ* 1997; 12:95-9.
9. Bouquot JE. Common oral lesions found during a mass screening examination. *J American Dental Association* 1986; 112:50-7.
10. Mashberg A, Feldman LJ. Clinical criteria for identifying early oral and oropharyngeal carcinoma: erythroplasia revisited. *Am J Surg.* 1988;156:273-5.
11. Svirsky, JA, Burns, JC, Page, DG, Abbey,LM. Computer-Assisted Analysis of the Oral Brush Biopsy. *Compendium* 2001;22:99-106.
12. Detecting Oral Cancer -- A Guide for Healthcare Professionals: National Institute of Dental and Craniofacial Research; Bethesda, Maryland.
13. Christian, DC: Computer-assisted analysis of oral brush biopsies at an oral cancer screening program. *J. Am Dent Assoc.* Mar 2002; 133 (3): 357-362.
14. Bouquot, JE. Common oral lesions found during mass screening examination. *J. Am Dent Assoc.* 1986; 112 (1): 50-57.
15. Burzynski, NJ; Firriolo, FJ; Butters, JM; Sorrell, CL. Evaluation of oral cancer screening. *J. Cancer Educ.* 1997: 12 (2) 95-99.