FEATURE

Check Your Mouth™ Campaign: Promoting Earlier Discovery of Oral Cancer

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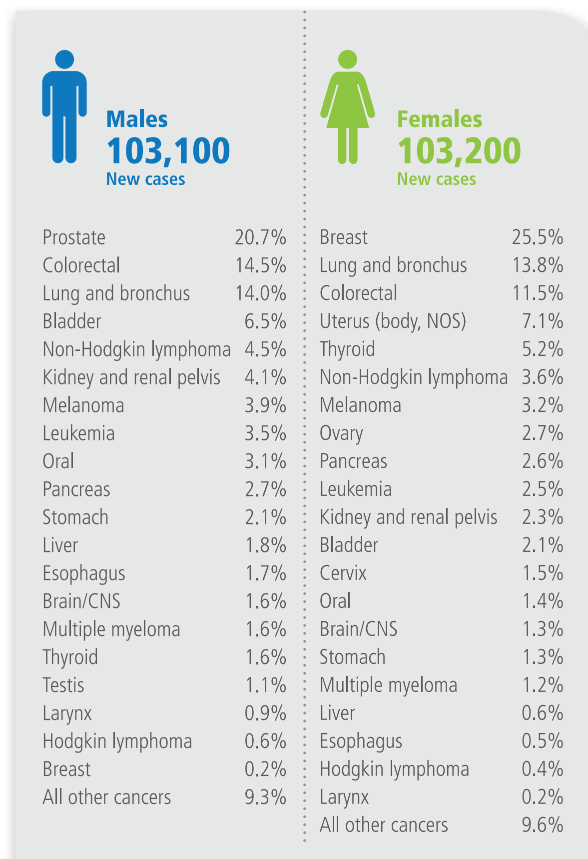
Spring brings a renewed energy, a promise of bright summer days ahead, and the pursuit of all the outdoor activities we have anxiously been awaiting. Spring also turns our attention to our professional commitments. April is Oral Cancer Awareness Month. Many of us have been touched in our professional and/or personal lives by this disease. There are no words to describe the horrors of oral cancer and the diminished quality of life that ensues for the fortunate who survive.

We are passionate about fulfilling our professional obligation to performing an oral cancer screening on each and every adult client on an annual basis. Despite our best efforts, every year we witness the dismal increase in incidence of both oral and oropharyngeal cancer.



Males 103,100 New cases		Females 103,200 New cases	
Prostate	20.7%	Breast	25.5%
Colorectal	14.5%	Lung and bronchus	13.8%
Lung and bronchus	14.0%	Colorectal	11.5%
Bladder	6.5%	Uterus (body, NOS)	7.1%
Non-Hodgkin lymphoma	4.5%	Thyroid	5.2%
Kidney and renal pelvis	4.1%	Non-Hodgkin lymphoma	3.6%
Melanoma	3.9%	Melanoma	3.2%
Leukemia	3.5%	Ovary	2.7%
Oral	3.1%	Pancreas	2.6%
Pancreas	2.7%	Leukemia	2.5%
Stomach	2.1%	Kidney and renal pelvis	2.3%
Liver	1.8%	Bladder	2.1%
Esophagus	1.7%	Cervix	1.5%
Brain/CNS	1.6%	Oral	1.4%
Multiple myeloma	1.6%	Brain/CNS	1.3%
Thyroid	1.6%	Stomach	1.3%
Testis	1.1%	Multiple myeloma	1.2%
Larynx	0.9%	Liver	0.6%
Hodgkin lymphoma	0.6%	Esophagus	0.5%
Breast	0.2%	Hodgkin lymphoma	0.4%
All other cancers	9.3%	Larynx	0.2%
		All other cancers	9.6%

Figure 1

The Canadian Cancer Society statistics for 2017[1] estimated the percent distribution of oral cancer cases to be 9th overall for males and 14th for females (Figure 1). This percent distribution surpasses other cancers that we would have assumed had a higher distribution rate, including stomach and liver cancers, and Hodgkin lymphoma which we tend to hear about more often. The statistical analysis further demonstrated that an estimated 4,700 new cases would be diagnosed in 2017 (Figure 2). The lifetime probability of developing oral cancer was estimated at 1 in 68 for males and 1 in 136 for females. The 2018 estimates were not available at the time of writing this article.

These statistics are contrasted by a notable mortality rate decline for oral cavity and pharyngeal cancer in males. The annual percent change (APC) in age-standardized mortality rates (ASMR) for selected cancers reflects a 2% decline for both liver and oral cancer in males.[1] The reduction in smoking rates, formerly the chief etiologic factor for oral cancers, has helped to improve survival rates particularly among males. However, while statistics from National Cancer Registries in the US have demonstrated a 50% decline in smoking-related oropharyngeal cancer, they have also shown a 225% increase in HPV-related oropharyngeal cancer between the years 1988 and 2004.[2] The disparity between the two predominant etiologic factors continues to increase. HPV is fueling an escalation in oropharyngeal cancers that is estimated to surpass HPV-related cervical cancer—the leading HPV-related cancer—by 2020.[2]

Reinforcing the risks of smoking and smokeless tobacco products, as well as the consumption of alcohol is still a critical component of our client education strategies when discussing oral cancer risk factors. However, we also need to make our dental hygiene clients aware of preventive strategies related to the rise in persistent HPV infection with a high-risk strain. According to Statistics Canada," many oropharyngeal cancers may be preventable through HPV vaccination, which is particularly important among males, where incidence rates are higher and rising at an even faster pace than females."[3]

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	New cases (2017 estimates)			Cases per 100,000		
	Total*	Males	Females	Total	Males	Females
All cancers	**206,200**	**103,100**	**103,200**	**515.9**	**548.4**	**495.6**
Lung and bronchus	28,600	14,400	14,200	69.9	76.5	65.3
Colorectal	26,800	14,900	11,900	66.3	79.6	54.9
Breast	26,500	230	26,300	68.1	1.2	130.3
Prostate	21,300	21,300	—	—	110.4	—
Bladder†	8,900	6,700	2,200	21.8	36.3	9.8
Non-Hodgkin lymphoma	8,300	4,600	3,700	20.8	24.6	17.6
Uterus (body, NOS)	7,300	—	7,300	—	—	35.7
Melanoma	7,200	4,000	3,300	18.5	21.3	16.3
Thyroid	7,100	1,650	5,400	19.0	8.8	29.1
Kidney and renal pelvis	6,600	4,200	2,400	16.5	22.3	11.3
Leukemia	6,200	3,600	2,600	15.5	19.6	12.0
Pancreas	5,500	2,800	2,700	13.5	14.7	12.4
Oral	4,700	3,200	1,450	11.9	17.1	7.1
Stomach	3,500	2,200	1,300	8.6	11.8	5.9
Brain/CNS	3,000	1,700	1,300	7.8	9.2	6.6
Multiple myeloma	2,900	1,700	1,200	7.1	9.1	5.6
Ovary	2,800	—	2,800	—	—	13.7
Liver	2,500	1,900	580	6.1	9.9	2.7
Esophagus	2,300	1,800	530	5.7	9.5	2.4
Cervix	1,550	—	1,550	—	—	8.3
Larynx	1,150	970	180	2.8	5.1	0.8
Testis	1,100	1,100	—	—	6.1	—
Hodgkin lymphoma	990	570	430	2.7	3.1	2.3
All other cancers	19,500	9,600	9,900	48.5	52.4	45.6

Analysis by: Surveillance and Epidemiology Division, CCDP, Public Health Agency of Canada
Data sources: Canadian Cancer Registry and National Cancer Incidence Reporting System databases at Statistics Canada

Figure 2

There is no doubt that the HPV-related oral and oropharyngeal profile has had an impact on dentistry. Something had to change in order to highlight the importance of screening more effectively to meet today's population needs. It is clear that we need to educate the public on how to perform a self-examination of their own mouth between dental visits on a regular basis. Further education must be imparted on the subtle life-saving symptoms of HPV-related oral cancer due to its posterior positioning and often lack of visual acuity. Far too many oral cancers are discovered in the later stages. The relative 5-year survival rate and overall quality of life is profoundly impacted by earlier discovery.

Following a number of successful proven models aimed at early detection of oral cancers, such as the melanoma targeted campaign "Do You Know Your ABCDEs" initiated by skincancer.org, a public oral cancer awareness education campaign was conceived thanks to a partnership between the Oral Cancer Foundation, founded by Brian Hill, an oral cancer survivor himself, and Jennifer Holland, chief executive officer of Holland Healthcare, inventor of Throat Scope™, the world's first all-in-one illuminated tongue depressor. A public education campaign with an objective to increase earlier discovery of oral cancer had been a passion of Brian Hill's for some time. There was a missing link that the Oral Cancer Foundation was searching for and that was the tool to place in the public's hands that would facilitate an effective intraoral self-examination. Throat Scope™ (www.throatscope.com) was undoubtedly the tool to facilitate this goal.

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Through generous support from the Paltrow Foundation, the Check Your Mouth™ campaign quickly moved from the conceptual to the concrete as an interactive website was designed to provide the public with the information, the tools, and ultimately the confidence to perform an effective self-examination (Figure 3). This by no means detracts from the importance of a professional oral cancer screening examination. In fact, Check Your Mouth™ elevates awareness of the importance of a professional extraoral and intraoral examination at regular intervals. The mandate is to have the public self-refer between professional visits any abnormal finding or symptom that persists beyond two weeks. The site provides an interactive platform complete with a step-by-step video outlining how to perform a self-examination, signs and symptoms to be aware of, and a gallery of oral lesions (Figure 4).

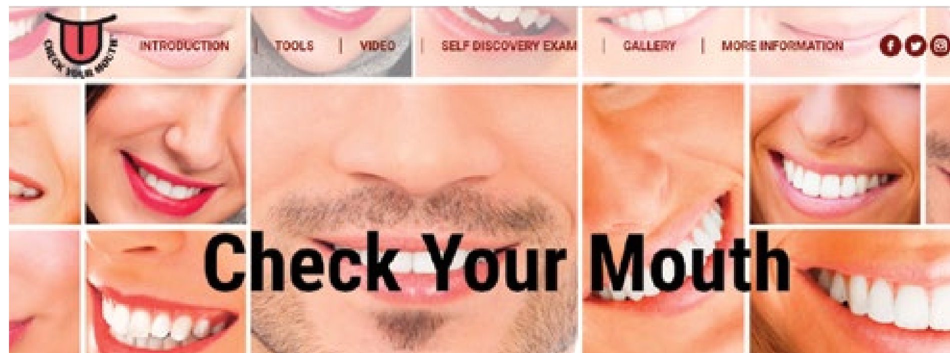

Figure 3

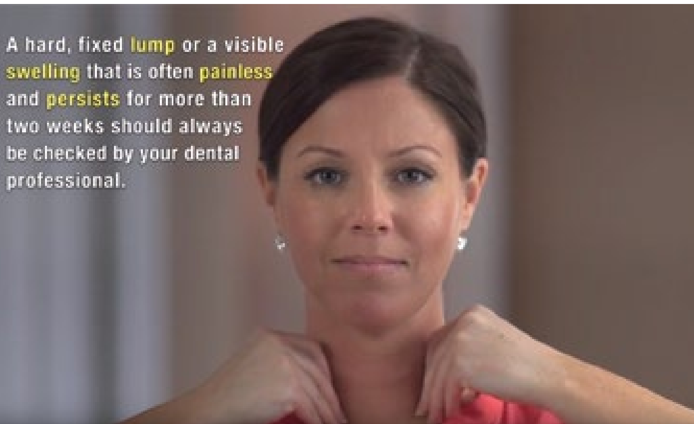

Figure 4

The involvement and support of the Canadian Dental Hygienists Association and our professional community will be the driving forces behind the success and the sustainability of this campaign. An educational postcard has been developed for the dental hygienist to provide to each adult client following their oral cancer screening examination (Figure 3). The postcard directs the public to the website (www.checkyourmouth.org) for further information. The free postcards may be ordered from the Oral Cancer Foundation store and will be mailed directly to the dental practice for distribution to your dental hygiene clients. Visit www.ocfstore.org/check_your_mouth_info_postcard_p/cym-250.htm to order your free postcards and other resources today. The tools depicted in the video are also available for purchase through the Oral Cancer Foundation at www.checkyourmouth.org (Figure 5).

We often feel helpless when confronted with a cancer diagnosis of a friend, a loved one or an unexpected discovery of a disturbing abnormality while doing a visual and tactile screening of a client in our chair. The Check Your Mouth™ campaign empowers every dental hygienist to truly make an impact on earlier discovery of oral and oropharyngeal cancer. Thank you in advance for your commitment to this North American initiative. We need each and every one of you in order to improve the long-term outcome for clients with oral cancer through early detection.

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Disclosure: *Jo-Anne Jones is an active CDHA member and contributor to the project management team for the Check Your Mouth™ campaign. Jo-Anne serves as an advisor to Throat Scope® and is involved in the North American launch of Throat Scope® into the dental community.*

Figure 5

Talking Ethics

"I Think It Was Missed Because I Was Not A Smoker"

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During our dental hygiene studies we were meticulous about assessing the submandibular, submental, and occipital lymph nodes. We palpated on either side of the sternocleidomastoid muscle and felt the differences to the temporalis and masseter muscles, and we assessed the temporomandibular joints while asking the client to open and close. We adjusted our overhead light and used our mirror to press on the tongue to view the oropharynx and the tonsillar pillars. We used gauze to hold onto the tongue and view the posterior lateral surfaces looking for changes and discrepancies. We documented the findings of the extra and intraoral examination and discussed the most common risk factors for oral cancer: tobacco, alcohol, lack of fruits and vegetable, and sun exposure.[2] After graduation, perhaps due to the constraints of time, this important aspect of the dental hygiene appointment is often left out and then forgotten as the habit of assessing is replaced by other billable procedures.

The practice standards to be adhered to by registered dental hygienists and dental hygiene students in Canada is to follow the ADPIE process: Assessment, Diagnosis, Planning, Implementation, and Evaluation. The *Entry to Practice Competencies and Standards for Canadian Dental Hygienists* indicates that "the dental hygienist as a clinical therapist collects accurate and complete data on the general, oral, and psychosocial health status of clients."[3, p20]

The demographics of clients presenting with oral cancer is changing, resulting in more people presenting with an etiology of Human papillomavirus (HPV), a common sexually transmitted infection. HPV-16, in particular, is increasing the risk of oral cancer. HPV can be spread through unprotected sex, touching, and oral sex.[2] Women who are sexually active are advised to have a pap test on a regular basis. Vaccines are available to reduce the incidence of certain strains of HPV in children, youth, and young

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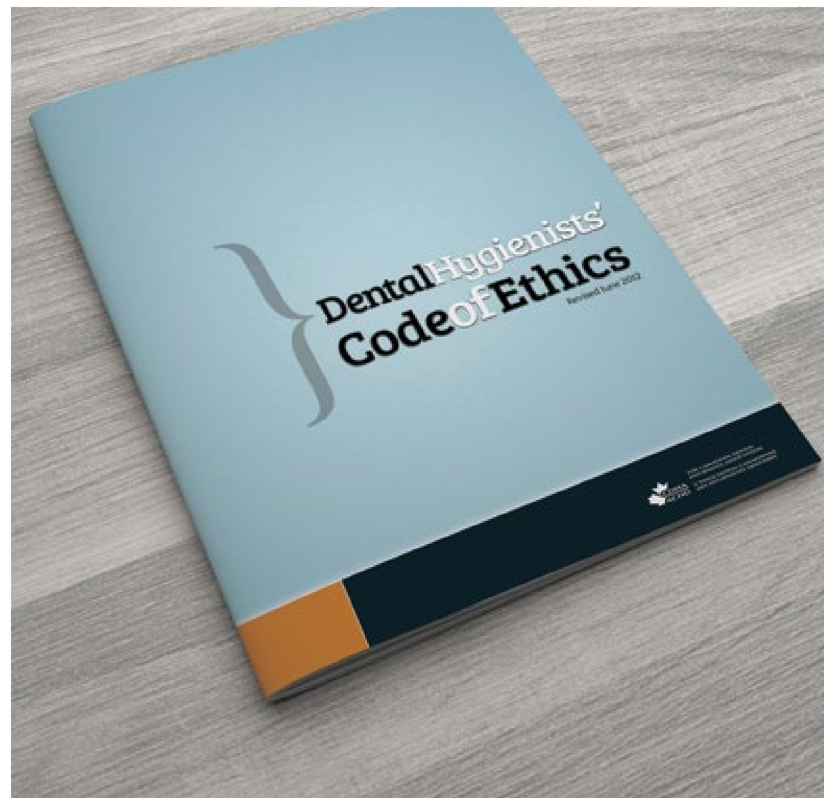
adults. The vaccine does not provide protection if one is already infected with HPV. People may be infected without symptoms which results in unintentional transmission to sexual partners.

A few weeks ago I was listening to CBC Radio One[5] and was in tears listening to a man's experience of life after his spouse had chosen medical assistance in dying (MAID). I wanted to know what was the medical diagnosis that caused so much suffering. After a brief search, I found the original article in which the client had a toothache that did not resolve and eventually SHE requested the biopsy with a diagnosis of extensive oral cancer.[1]

I believe the head and neck examination, the oral cancer screening, and the assessment of the extra and intraoral tissues are the most important aspects of our dental hygiene appointment. An assessment which takes less than 5 minutes—probably 3 minutes—to complete could possibly make a difference in a client's future. Using this opportunity to discuss the reasons why an extra and intraoral examination is important will further educate the client on risk factors and possible lifestyle changes.[4]

The *Dental Hygienists' Code of Ethics* sets out mandatory requirements for dental hygienists to ensure that they meet a high standard of ethical practice, regardless of their practice area.[6,7] Although most provincial associations have their own specific codes of ethics[6], the principles of beneficence, accountability, and integrity listed in CDHA's *Code of Ethics* [6] are common themes. Dental hygienists are to use their "knowledge and skills to assist clients to obtain optimal oral health and overall wellbeing."[6, p.5] Dental hygienists are to "uphold the principles and standards of the profession" as defined by the principle of integrity.[6, p.7] Finally, "dental hygienists accept responsibility for knowing and acting consistently with the principles, practice standards, laws and regulations under which they are accountable."[6, p.8] In essence, a dental hygienist who does not include the extra and intraoral examination as part the assessments is violating the code of ethics under which we are all governed.

For me, if a friend, family member or acquaintance has been diagnosed with oral cancer, I would ask if an oral cancer screening had been completed during their dental hygiene appointments. Are you willing to take that risk of not assessing and not documenting the findings of your extra and intraoral examination and consequently violating the principles and standards of our profession? I'm not and thus will continue to assess, discuss my findings with my client, and document. Will you too?



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