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2018

BROUGHT TO YOU BY THE ONTARIO DENTAL ASSOCIATION

A photograph of a woman with short grey hair, wearing a light blue t-shirt and white pants, sitting on a yellow plastic chair in a dental waiting area. She is looking down and to the side with a thoughtful or anxious expression. The background shows other yellow chairs and a bright window.

Overcoming Anxiety in the Dental Office

PLEASE DO NOT REMOVE FROM RECEPTION AREA.

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A valuable resource for your patients.



Summer/Fall 2018

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MISSION OF THE ONTARIO DENTAL ASSOCIATION

We are committed to providing innovative, inspired leadership and delivering exceptional value by:

- promoting the highest standards of dental care and supporting our membership in its pursuit of successful, ethical practice; professional excellence; and personal fulfillment
- advocating on behalf of ODA dentists
- promoting optimal oral health and sustainable and accessible care for all Ontarians
- fostering collaborative relationships that promote creativity, personal development and professional growth while celebrating achievements

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Welcome



**from Dr. Deborah Saunders,
Editor-in-Chief**

This Summer/Fall issue of *YOH.ca Magazine* marks the beginning of summer fun for most and back-to-school time for some in the fall. We hope that whatever you are doing, you include time to read this issue of *YOH.ca Magazine*.

And this issue also marks the departure of one of our most dedicated and influential staff members. As our readers know, every article that is considered and approved for this magazine is reviewed and assessed by me and the Consulting Editor, Dr. Ian McConnachie. I would like to dedicate my welcome message to Dr. McConnachie and his impressive commitment to our *YOH.ca Magazine*. Since this magazine's second issue, Dr. McConnachie has offered invaluable input and sage advice on what you, our patients, want and need to know when it comes to oral health care. Like many of us in our careers, Dr. McConnachie has decided the time has come to explore other pursuits. I am sure that, his experience with us will directly or indirectly affect his dedication in educating patients and peers as he tackles new challenges.

Thank you sincerely for your expertise and wisdom, Dr. McConnachie. We wish you all the best in your future endeavours!

DEBBIE SAUNDERS

As always, we're interested in hearing your feedback, so please let us know what you think of this issue and if there are other topics you'd like us to explore in upcoming issues. Please contact us at yoh@oda.ca.

Farewell from Dr. Ian McConnachie



It has been my honour to act as Consulting Editor for *YOH.ca Magazine* almost since its inception. In this digital age, you can find amazing amounts of detail about almost any subject. It is our goal at this magazine to be a trusted resource in navigating the flood of information about the path to good oral health. As a pediatric dentist, it has also been particularly important to me that we regularly include solid information to parents and caregivers, so that our kids start their journey to optimal health with the right knowledge. This team is a special group of skilled people. They set the bar high for themselves, so that you can be confident in receiving reliable, high-quality, readable articles. I expect you will continue to find reputable help through new issues of *YOH.ca Magazine*, as well as through the archived issues available at YourOralHealth.ca.

OUR CONTRIBUTORS



Lauren Atmore is the ODA's Communications Intern. After earning her English degree at Carleton University in Ottawa, she moved to Toronto, where she completed her communications diploma at Centennial College. Lauren's volunteer work with homeless youth includes helping them receive the dental services they need.



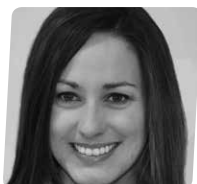
Maggie Blood is the ODA's Communications Specialist. She's had a lifelong love-hate relationship with popcorn, but came to the conclusion many years ago that floss is boss.



Cheryl Embrett has written for and edited many national magazines, including *Canadian Living* and *Today's Parent*. Her teenaged daughter and two elderly cats all floss and brush regularly.



Jennifer D. Foster is a freelance editor and writer, and her company is Planet Word. She lives in east Toronto with her husband, their teen son and retired racer greyhound, Aquaman. They're all dedicated to maintaining excellent oral health.



Shaylin Kemmerling is Dental Practice Manager at Caradoc Dentistry in Strathroy. She is also a registered dietitian and a certified diabetes educator. Shaylin does consulting work, writing, guest speaking and product development and is a dedicated brusher.



Michelle Outar works in government communications and is also a freelance writer. She loves to read and play the piano and guitar. Michelle tries to maintain positive dental hygiene to set a good example for her kids, and she's never had a cavity!



Donna Paris is a freelance writer and editor living in Toronto. She was an editor at *Canadian Living* for many years, and, because of her teeth, she considers her smile her best asset.



Julia Stanislavskaia is a Toronto-based registered dietitian who provides nutrition assessment and counselling on various medical and oral health issues. As a child, Julia loved her dental appointments, unlike most children.

For information about a variety of oral health-care topics, please visit our public website at youroralhealth.ca. You will also find patient fact sheets, brochures and posters that you can download and recent issues of *YourOralHealth.ca Magazine*.

How to Overcome Your Fear (and Your Child's Fear) of the Dentist, Once and for All

By Donna Paris

Whether it's the fear of someone poking around in your mouth, the needle or the noise of the dental drill, if it prevents you (or your child) from going to the dentist, it's a problem. We asked our dentists for expert advice and tips on how to handle specific issues — so you can brush off your fears for good!



If you find yourself feeling anxious about an upcoming visit to the dentist or even avoiding it altogether until conditions deteriorate and you're faced with a huge dental bill, don't panic.

The best thing you can do? Be honest. "It's easy if a patient tells you flat out they are scared of the dentist," says Dr. David Stevenson, President of the Ontario Dental Association (ODA), with a practice in Carleton Place. But more often, he says, he has to look for signs, such as an increased breathing rate, perspiration, avoiding eye contact or even an angry, challenging attitude.

"When a person feels anxious, they can feel a need to protect themselves in ways that prevent the establishment of trust between dentist and patient," says Dr. Stevenson. "And this needs to be worked through, so that no one takes it personally." He likes to create a calm environment for patients and find a common interest to talk about. "There are enough photos of my horses and dogs around the office to find a starting point somewhere," he says.

If you're apprehensive about going to the dentist, a good place to start is to figure out whether you're anxious or fearful, or if you have a phobia. Anxiety is a response to a possible or perceived danger. A patient is anxious about what might happen, for instance. Fear is a response to a specific thing (that is, a patient who fears getting a needle).

"Both anxiety and fear can be understood and managed," says Dr. Stevenson. But a phobia, when one's anxiety or fear is so pronounced that it leads to irrational behaviour, means a patient won't get treatment, even if they have a broken tooth, for instance, and they know it may get worse.

Dr. Stevenson likes to let patients know there are many options available, including anti-anxiety medication taken before an appointment, nitrous oxide or conscious sedation during the appointment or even general anesthesia. "The desired outcome for everyone is to have treatment done well, safely and pain-free," he adds.

Next, Dr. Stevenson addresses some of the most common dental-related fears and anxieties.



I'm embarrassed. I haven't been to a dentist in years, I don't floss and I have bad breath.

Many times the patient feels embarrassed because they feel their situation is unique or different — in a bad way. I try to assure the patient that whether their embarrassment comes from their anxiety, fear or a condition, there are so many other people in the same situation. They've come to the right place for help.

All the strange noises, like the sound of a drill, make me anxious!

Music or podcasts can be very helpful in these situations. Personally, I always offer to sing for the patient. It hasn't proven

helpful in the past, but the fact that I keep trying seems to amuse everyone, which is helpful in a way.

I feel trapped when a dentist is working on my teeth for a long time for a procedure, like a root canal, for instance.

Control is a big deal, so I find it best to give the patient some control. I tell them that if they want me to stop for any reason, they can raise their hand, and I'll stop. Sometimes this is just to swallow, take a break or just reposition themselves. Once they test it out a few times, they are more trusting, and I'm more comfortable, too.



I associate pain with dental treatments.

I don't have a high tolerance.

If there is pain I stop, and we decide on our next plan of action: more local anesthetic, sedation or perhaps even general anesthesia at a specialist's office. The most important communication is that if there is pain, and you ask me to stop, I'll stop.

I had a horrible experience as a child, and I can't seem to get over it!

It's important for patients to know that you [as a dentist] understand the impact of a bad experience, and the fact that they can't get over it is normal. Very rarely will a good experience, or even multiple good experiences, eliminate the effects of a bad one. A bad experience will always affect someone, but the goal is to manage the experiences moving forward.

How to Help Yourself

- Try a simple breathing technique: take a deep breath, hold it and then let it out very slowly. This will help to slow your heart rate and relax your muscles.
- Arrive a few minutes early, but don't go an hour early, as sitting in the waiting room for too long can increase anxiety.
- Distract yourself by listening to your favourite music or by listening to a podcast or audiobook.
- If you don't like the bright lights shining in your eyes, bring a pair of sunglasses to wear, while in the dentist chair.



How to Manage Your Child's Anxiety

It's not just adults who are anxious about going to the dentist or orthodontist. Kids get anxious, too. Again, identifying what's taking place is key. "Young children are more likely not to make eye contact [with the dentist]," says Dr. Ian McConnachie, a pediatric dentist in Ottawa. "And with older kids, right up to teenagers, you're dealing both with shy or withdrawn kids who then exhibit anxiety associated with our 'invading' their space, as well as more overtly anxious kids relating to a fear of the unknown or fear related to past experiences."

And if a child is already anxious about going to the dentist, a visit with an orthodontist really ups the ante. "Orthodontic treatments have become so common that it's easy to forget that many kids are anxious about the procedures," says Dr. LouAnn Visconti, Past President of the ODA, with a practice that specializes in orthodontics in Timmins. She often starts by talking to the child about their hobbies, then explains what will happen, addressing the child with the parent looking on, so that there are no surprises. "The child is involved in the consultation and addressed in every aspect of the examination and discussion, along with the parent," she says.

Here are some practical tips for parents to help anxious kids feel more comfortable.

• It's a good idea for parents to accompany the child into the treatment room.

"A parent in the room eases and speeds communication, so that they understand and see what I am doing," says Dr. McConnachie.



• Look for a comfortable office.

"Going to the dentist should be a positive experience," says Dr. McConnachie. "Successfully getting through a period of anxiety with a child is a great achievement for the entire team, including the patient." In fact, it can even be fun, adds Dr. Visconti, who says she sometimes sings along to pop songs on the radio, changing the lyrics to ones about braces.

• Are you an anxious parent?

If you have your own anxieties about dentistry, then you're probably not the best one to bring the child to the appointment, as the child will pick up on the anxieties, says Dr. McConnachie.

• Sure, take Toby the Bear along.

Many children bring fidget spinners or their favourite stuffed animals to appointments. "If the toy or gadget helps to relax the child, I see no issue," says Dr. Visconti. "If they bring a stuffed animal, we ask who they brought with them today and then offer to do an examination on the stuffed animal, as well."

• Sure, bring a friend.

"We welcome friends to come in with older teens, and include them in the conversations that are going on, as well," says Dr. Visconti. "We also discuss school and what they think that they may wish to do when they graduate." As well, she is always careful to explain everything that is happening and the rationale behind it.

• Kids get respect.

It's important for a dentist to take the time to talk to patients and their parents in terms that they can understand. "People may not always remember what you say to them. They may not always remember what you do for them. But they will always remember how you made them feel!" says Dr. Visconti. [yon](#)

Pick a fun quote or a mantra and repeat it over and over (in your head): Our favourites? "Teeth are always in style." (Dr. Seuss). Or, for *Star Wars* fans: "May the floss be with you!"

What Is an Eating Disorder?

Does It Affect Oral Health?

By Julia Stanislavskaja



Have you or a loved one ever had a difficult relationship with food and/or weight? And have you ever wondered how restrictive or compulsive eating patterns may affect oral health? As a registered dietitian practising in Toronto, I see patients of all ages. And I can tell you that eating disorders are no longer restricted to young females with anorexia nervosa and bulimia nervosa. I now see elderly women, male teens and kids less than 10 years of age with different types of eating disorders, which have body-wide effects, including a negative impact on gums, teeth and the mouth.

When I counselled an underweight 70-year-old female who was losing weight, it took me a few sessions to figure out that she was eating less to maintain her appearance and fight aging. She had atypical anorexia. And when a young man came to see me for weight loss, it turned out that he had a binge-eating disorder. In both cases, there was no initial suspicion of an eating

disorder, even from the patients themselves. If you or someone you know restricts their daily calories, has uncontrollable bingeing, practises self-induced vomiting or all of the above, strongly consider the possibility of an eating disorder — and seek professional advice.

Eating disorders defined

Eating disorders are a range of psychological illnesses that involve a severely distorted relationship with food, causing disturbances in eating patterns and related thoughts and emotions.¹ This preoccupation with food, and often body weight, negatively affects one's physical well-being and the ability to carry out basic life functions, such as working or socializing with friends. These conditions are associated with significant medical complications, and some have the highest mortality rates among all psychiatric illnesses.² Most of the research in this field has been done on females with anorexia and bulimia. Statistics show that between 0.3

per cent and 1 per cent of women have anorexia, while .9 per cent to 3 per cent of females develop bulimia.³ Other eating disorders include night eating syndrome and binge-eating disorder.⁴

Eating disorders and oral health issues

Dr. Mikhail Pliousnine, a general dentist with a practice in North York, has a particular interest in patients with eating disorders. He says that “all eating disorders will have negative effects on the body...and definitely lead to a negative impact on oral health.” Also, he notes, “the deficiency of vitamins, minerals and nutrients associated with these disorders can cause the body to shut down and fail to function properly.”

Dr. Pliousnine has seen increased cavity and decay risk, moderate to severe gum disease, tooth erosion defects and increased complications after dental surgery due to the compromised immune system in patients with eating disorders. Other common oral health issues may include dry mouth, enlarged salivary glands, altered taste, increased (temperature) sensitivity and changes in the colour, shape and length of teeth.⁵ Restricting, binging and purging are the nutrition-related behaviours central to eating disorders that affect oral health the most.

Tooth erosion

Tooth erosion is common in patients with both anorexia and bulimia because vomiting leads to a significant breakdown of tooth enamel. And all patients with eating disorders, including those who don't vomit, have higher rates of tooth erosion than the average healthy person.⁶

Erosion may be caused by the body's own acid from self-induced vomiting or from eating low acid foods. For example: someone with binge-eating disorder may regularly drink two litres of cola at a time, while someone restricting their food intake may be eating vast amounts of citrus fruits, but avoiding most other foods. Frequent, vigorous brushing and rinsing that often immediately follow a purge also contribute to dental erosion.⁷ Dr. Beatrice Leung, a prosthodontist in Toronto, has seen both (young) male and female patients with eating disorders in her practice. She says that tooth wear caused by erosion can lead to dental sensitivity and the loss of tooth structure, which can compromise both the look and the function of teeth in those with eating disorders.



Cavities and tooth decay

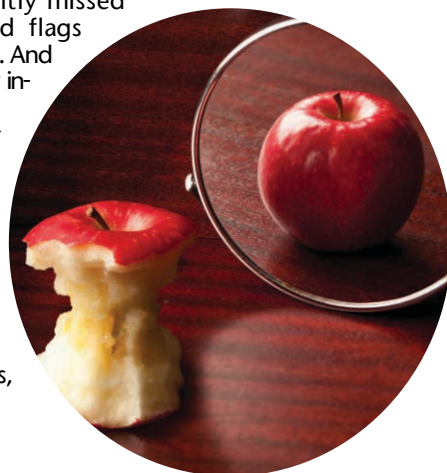
Although the incidence of cavities and tooth decay in those with eating disorders varies⁸, they are still a significant oral health problem. The risk of cavities and tooth decay depends on the dominant behaviours of the disorder and the oral hygiene practices of the individual. The reduced flow of saliva/dry mouth also increases the risk of cavities, tooth decay and other oral infections in those with eating disorders. Additionally, certain antidepressants used to help treat some eating disorders affect the production of saliva.⁹

Periodontal disease

Patients with eating disorders, especially those who significantly restrict their daily food intake, may have poor hygiene practices leading to increased plaque buildup and inflammation of the gums, known as gingivitis.¹⁰ Certain micronutrient deficiencies, such as B vitamins, calcium and vitamin C, have also been linked to gingivitis.¹¹ This is another consideration, as nutrient deficiencies are a common result of eating disorders.

Treatment

Eating disorders involve a number of factors and require a team approach for proper treatment. And dentists are often the first point of contact to recognize and address an eating disorder. Dr. Leung looks for obvious signs, such as weight loss or gain, lack of personal/oral hygiene and frequently missed appointments, as red flags for an eating disorder. And she stresses that “early intervention may simplify treatment.” Regular dental appointments are crucial for people with disordered eating. Dr. Pliousnine recommends specific treatment plans and maintenance schedules for those with eating disorders,





“which may include instruction in proper oral hygiene, a caries [cavities and tooth decay] prevention program, restorative dentistry, dry mouth management, teeth sensitivity reduction, nutrition guidance, frequent recalls and hygiene appointments.” And, he adds, “a referral to health-care specialists would be crucial for the treatment of a complex eating disorder.”

Addressing an eating disorder is incredibly difficult and takes a lot of courage. If you notice that your or a loved one’s relationship with food is taking over and

is marked by significant caloric restriction, bingeing or purging, discuss it with a health-care provider. From my personal experience as a dietitian, I suggest easing into this discussion with a person you trust and feel comfortable with. Whether that person is a family doctor, dentist or counsellor, they will give you the needed support and help required to build an expert team through referrals. [yoh](#)

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EATING DISORDER	DEFINITION
Anorexia nervosa	Restricted food intake, along with significantly low body weight; persistent behaviour that interferes with weight gain; a distorted view of one’s own body.
Bulimia nervosa	Regular episodes of binge eating followed by inappropriate purging behaviour to compensate, such as self-induced vomiting, excessive exercise or misuse of laxatives or diuretics; undue emphasis on the importance of body image.
Binge-eating disorder	Regular episodes of binge eating without the purging behaviours of bulimia nervosa; feeling out of control over what and how much is eaten and when to stop.
Avoidant/restrictive food intake disorder	Avoidance of foods, typically starting in infancy or childhood; marked by significant weight loss and/or nutrient deficiencies; if untreated, can develop into anorexia nervosa or bulimia nervosa in adolescence or adulthood.
Other specified feeding or eating disorder	Atypical anorexia nervosa, purging disorder, night eating syndrome, etc.
Unspecified feeding or eating disorder	Symptoms of a feeding or eating disorder that does not meet the criteria for anorexia nervosa, bulimia nervosa, binge-eating disorder, avoidant/restrictive food intake disorder or other specified feeding or eating disorder, but still causes distress/impairment in functioning.

Source: National Eating Disorder Information Centre. “Clinical Definitions,” 2014. <http://nedic.ca/node/806>.

Vaping Instead of Smoking: Neither Habit is Healthy

By Maggie Blood

There's never been a better time to kick the stick



Whether you use sticks, pens, mini tanks or any other kind of vapourizer, the ODA wants you to know that now is the time to kick your vaping habit — for good.



April marked Oral Health Month in Canada, and along with our usual reminder for people young and old to brush twice a day, floss daily and keep regular dental appointments, the ODA advises you to be on guard with every breath of flavoured smoke you take.

While more long-term research is needed, particularly on how



e-cigarettes directly affect dental health, the early results are not good. Current data suggests vaping devices create a variety of chemicals and metal particles that are then inhaled by users. These toxic levels may be lower than what is in tobacco smoke, but the fact remains: some of these chemicals are poisonous and known to cause cancer.

Dr. Deborah Saunders, Medical Director of the Department of Dental Oncology at the Northeast Cancer Centre in Sudbury, says there's a long list of nasty ingredients you could be breathing in. "Some of the chemicals identified in the aerosols of electronic cigarettes include propylene glycol, glycerine, formaldehyde, acetaldehyde, acrolein, toluene, nitrosamines, nickel, cadmium, aluminum, silicon and lead."

Dr. Saunders says that "propylene glycol and glycerin, the main base ingredients of e-liquids, can cause upper respiratory irritation and may affect the central nervous system. Even though studies show vaping can be an effective nicotine replacement, vapour devices may be less safe."

There was a time when vaping was thought to be a healthier alternative — or at least a less-risky option — than traditional cigarette smoking. But more and more studies are now suggesting that's just not the case. [voh](#)



Snuff the Puff

"Increasing scientific research is showing us just how damaging vaping can be. Now is the time to take better care of your health and kick the stick, especially for young people, since vaping can open the door to other harmful behaviours, like smoking cigarettes," says ODA Past President Dr. LouAnn Visconti.

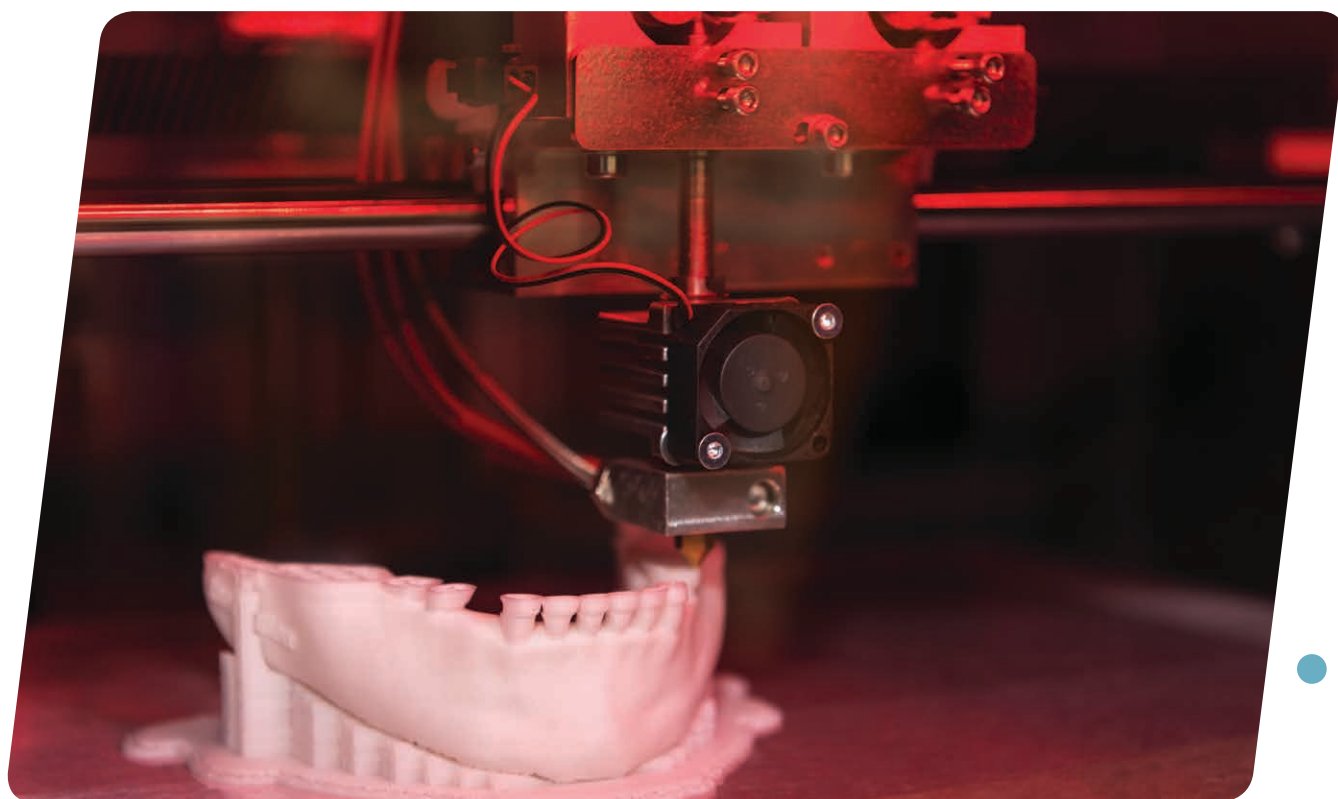
If you've been vaping to avoid cigarettes, there are healthier ways to quit both habits. Don't be afraid to start the conversation with your dentist now. They can work with you to figure out a realistic strategy on how to live and stay vape- and smoke-free.

The dentist can also give you helpful tips on how to deal with cravings. Hint: chewing sugarless gum is a great way to shift your focus and keep your mouth busy when you're hankering for a puff.

Going 3D in the Dental Office

By Donna Paris

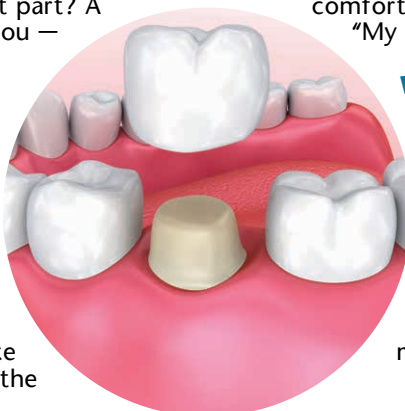
From design to production, technology is having a tremendous impact on the dental office. Dental 3D printing may still be in its infancy, but it's poised to offer solutions and applications in all areas of dentistry



Picture this: You get a root canal to save a tooth, and now you need a crown. The dentist uses a wand with a camera to take pictures inside your mouth, which are then transmitted to a computer in order to create a 3D image using a software program. The best part? A 3D dental printer prints out a crown for you — while you wait. Wait — what?

Yes, it's true. Although the technology has been around for decades, the first attempts were awkward and inefficient. But, as the technology has improved, dental 3D printing has started to become more viable. And now, just as 3D printers are starting to make medical advances by fabricating heart valves and low-cost prosthetic parts — even synthetic skin and organs — they're also starting to make an impact on dentistry. "Over the years, the

upgrades in technology have made it easier to use," says Dr. Mohammed Saigar of Collingwood Dental Centre in Collingwood. An admitted early adopter, he started working with the technology in 2000, so he's very comfortable with it now. The biggest winners? "My patients — they're amazed!" he says.



What is dental 3D printing?

Hand-held digital scanners are now being used in many dental offices to capture the data necessary to design all kinds of dental restorations that were once measured by hand and created from alginate (powdered dental material) impressions. Together with this technology, computer-aided manufacturing (CAM) is being used to make temporary and sometimes final



The biggest advantages are probably for the patient: overall, it's quicker with less discomfort. For someone with a strong gag reflex, this is so much better than conventional impressions. "A scan is much less invasive for the patient," says McFadden.

And it's a big time-saver, too, as it can allow patients to leave a dental office with a permanent crown on the same day. That's a big deal, because now, patients have to get a temporary crown placed for a few weeks, while a lab manufactures a permanent one made from the impression. "In our office, it's a one-step process: we do implants based on scans, which improve the outcome and decrease

the stress for the patient," says Dr. Saigar. "I allow myself two hours, but it usually takes less than that." It's still a learning curve, however, as dentists have to learn how to use the new technology.

dental restorations from the digital information by using 3D printers and/or milling machines. "The laboratory can fabricate crowns, bridges, custom trays, dentures and many other products from computer-aided design (CAD) files," says Crystal McFadden, the crown and bridge manager at Image Dental Laboratory in Barrie. "The biggest learning curve is getting the team to change what they've done for years and expand and push into this new digital world."

How does it work?

First, a dentist waves a wand with a camera over the patient's teeth to get images and capture the information in a data file. "This will be the next big thing in dentistry," says Kevin Wauchope, the general manager at Image Dental Laboratory. "The scanning process captures a gazillion digital 'pictures' that, when uploaded into a design program, are sewn together to create a 3D representation of the patient's [oral] anatomy."

Once the scan is completed, that information is transmitted electronically to a lab or to a design/milling station right in the dentist's office, where design and then manufacturing to exact specifications begins.

In fact, Wauchope says, it's super-accurate, and patients are attracted to it because it's easy. "The scanning process eliminates the discomfort of biting down on a goop-filled tray, as is the case when taking a traditional impression," he says.



It's still an emerging technology

It's just starting to happen, really. "I've been in the dental field for more than 20 years and the traditional processes are still very accurate and effective for making high-quality restorations and prosthetics," says McFadden.



As for what's coming down the pipeline, in April, one manufacturer announced that a new dental printer will allow labs to produce more than 400 clear orthodontic aligner moulds in a day. And researchers at the King Abdullah University of Science and Technology in Saudi Arabia are developing smart 3D printed braces equipped with LED lights to align and straighten the teeth quickly. The semi-translucent 3D printed braces put a battery on each tooth to power the light (which is invisible to the naked eye), and the energy helps the teeth to move faster.

And there are things we can't even imagine yet. Think about this: just a few decades ago, orthodontic appliances, veneers and implants were limited. And whitening wasn't even a thing yet. No one knew then all of the possibilities that dentistry would offer. yoh

Butt Out! Your Dentist Can Help You Quit Smoking — for Good

By Michelle Outar



Whether you've made the decision to quit smoking or are considering it, there are many ways to find support throughout this journey. Did you know you can get tobacco cessation advice from your doctor, pharmacist and also your dentist? Dentists are a great resource, who can tell you about smoking and its detrimental effects on your teeth, and your oral and overall general health.



Nicotine is a chemical compound found in tobacco products. The human body begins to crave nicotine after frequent use over time, and the urge to smoke becomes a severe addiction. According to Statistics Canada, in 2011 one in five — or about 5.8 million Canadians — was classified as a smoker.¹

Many people who smoke are now looking to quit because of the known negative effects on overall health. Individuals who smoke have an increased risk of heart disease and lung cancer, and those who smoke the most stand to lose about nine years of their life expectancy.² In other words, according to Statistics Canada, average life expectancy is reduced from 82 years to 73 years for adults who smoke.³



Once you quit smoking, your body begins to heal itself immediately. After 20 minutes, your blood pressure drops to a level similar to what it was before your last cigarette. After eight hours, the level of carbon monoxide (a toxic gas) in your blood drops to normal. After 24 hours, your risk of having a heart attack starts to drop. And after a year, your added risk of coronary heart disease is half that of a smoker's.⁴

Not to mention the cost savings. The average person who smokes spends \$20 a day on cigarettes, which equates to \$600 a month.⁵ Think about what you could do for yourself and your family with an extra \$7,200 a year — take a vacation, help pay off your mortgage or enjoy extra-curricular activities that you couldn't afford previously.

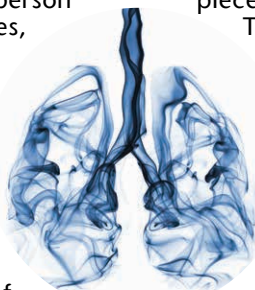
In a spring 2012 story published in the ODA's journal for members, *Ontario Dentist*, Dr. Deborah Saunders, Editor-in-Chief of *YourOralHealth.ca Magazine*, Medical Director of the Department of Dental Oncology at Sudbury's Northeast Cancer Centre and program lead for Tobacco Intervention Services at the centre, helped one of her long-time patients, Lise Perreault in Mattawa — who was a heavy smoker — quit for good. Perreault will be nine years smoke-free in October.

Perreault went to visit Dr. Saunders for a routine checkup on her dental implants and mentioned a desire to quit smoking cigarettes because of her nicotine addiction. Dr. Saunders asked Perreault if she wanted to quit smoking forever, to which she answered yes. And that life-changing question helped Perreault start her journey to overcome her tobacco addiction. Dr. Saunders and Perreault devised a structured plan, which included using varenicline for several months and gradually cutting down Perreault's tobacco use to the point where she wasn't craving a cigarette anymore. Varenicline comes in capsule form and is used to reduce cravings and withdrawal symptoms. It also decreases the pleasure that people get from smoking.⁶ This medication

should be used by adults in combination with smoking-cessation education and counselling.

Now a non-smoker, Perreault has seen many health benefits, such as having more energy, feeling more rested, being able to breathe better and being able to walk on a treadmill for more than five minutes. Perreault feels Dr. Saunders was her strongest supporter who helped her kick a lifelong bad habit. Perreault's main piece of advice to people who want to quit smoking?

Try using some form of prescription medication for at least two to three months. She says not to get discouraged easily, even if you experience side-effects, such as unusual dreams or headaches, because it's all worth it once you reach that ultimate goal of becoming a non-smoker.



Dr. Saunders always gives her patients who want to quit smoking three pieces of advice. Get support from health-care professionals who are certified to provide advice in tobacco prevention and cessation. If you're unsure how to locate these certified professionals, consult your doctor, pharmacist or dentist. Accept nicotine replacement therapy and/or use of prescription medications to increase your chance of success. Reduce the amount of tobacco used and have confidence in yourself and the control you can create to curb your cravings. Attempting to quit on your own without support (cold turkey) is admirable, but it has a 95 to 97 per cent relapse rate within six to 12 months.⁷ Her last piece of advice is to ensure you seek help from a variety of health-care providers, including your dentist, and lean on them for support. Take advantage of helplines, such as smokershelpline.ca⁸ or call the pan-Canadian, toll-free quitline at 1-866-366-3667⁹ in order to get the specialized care you need to quit — for good.

If you have a setback, don't be discouraged. It's all part of the process to become smoke-free. On average, it can take more than seven attempts to finally quit.¹⁰ Setbacks offer a chance to renew goals, evaluate the process and — most importantly — try again!

yoh

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Quit Smoking and Improve Your Health — Today

Smoking can create many more health problems than just yellow teeth and bad breath. Quitting smoking is the first step to a better tomorrow

GATEWAY TO DISEASE

- SMOKING IS ONE OF THE LEADING PREVENTABLE CAUSES OF DEATH WORLDWIDE.
- 37,000 SMOKING-ATTRIBUTABLE DEATHS PER YEAR IN CANADA.
- 1 IN 2 SMOKERS DIES PREMATURELY FROM A SMOKING-RELATED ILLNESS IN ENGLAND.
- PERSONS WITH MENTAL ILLNESS CONSUME APPROXIMATELY 44% OF ALL CIGARETTES SMOKED IN THE U.S.



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SMOKING & CANCER

A REVIEW OF INTERNATIONAL, ENGLISH-LANGUAGE STUDIES ON SMOKING AND CANCER OBSERVED THAT SMOKING RATES ARE HIGH EVEN IN PATIENTS WITH CANCERS STRONGLY RELATED TO SMOKING, INCLUDING 13–20% IN PEOPLE WITH LUNG CANCER AND 23–35% IN PEOPLE WITH HEAD AND NECK CANCERS. ADDITIONALLY, AN AMERICAN STUDY SHOWS THAT SMOKING ACCOUNTS FOR 87% OF LUNG CANCER AND 30% OF ALL CANCER DEATHS.



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5.8M
SMOKERS

- ONE IN FIVE, OR ABOUT 5.8 MILLION CANADIANS, SMOKES.
- MORE MEN SMOKE THAN WOMEN: 22.3% VERSUS 17.5%.
- SMOKING RATES IN CANADA ARE DECREASING, DOWN 6% FROM 2001'S NUMBERS TO 19.9% IN 2011.
- CANADIAN SMOKERS COULD LOSE ABOUT 9 YEARS OF LIFE EXPECTANCY OVERALL.

ORAL HEALTH IMPLICATIONS

THE MOUTH IS GROUND ZERO FOR THE DAMAGE DONE BY SMOKING. IN ADDITION TO BAD BREATH AND YELLOWING TEETH, SMOKERS ARE OFTEN AFFLICTED BY A HOST OF CONDITIONS AND PROBLEMS, SUCH AS:

- CHRONIC PERIODONTITIS*
- DAMAGE TO MICROFLORA⁺
- COMPROMISE OF THE WAY OUR BODIES RESPOND TO HEALTH THREATS
- TOOTH LOSS
- FAILURE OF IMPLANTS TO REMAIN SECURE AND COMFORTABLE IN THE MOUTH
- TOOTH DECAY AND CAVITIES
- IRREVERSIBLE DAMAGE TO THE PERIODONTIUM, THE SPECIALIZED TISSUES THAT BOTH SURROUND AND SUPPORT YOUR TEETH
- DESTRUCTIVE LEVELS OF DENTAL PLAQUE

*A SERIOUS GUM INFECTION THAT DAMAGES THE SOFT TISSUE AND DESTROYS THE BONE THAT SUPPORTS YOUR TEETH.

⁺THE COLLECTIVE BACTERIA AND OTHER MICRO-ORGANISMS VITAL TO HEALTHY ORGANS.

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Can an A+ Smile = A+ Grades?

By Cheryl Embrett

New research shows that children with good oral health are more likely to do better in school



Most of us know that daily brushing, flossing and regular trips to the dentist can help keep our children's teeth cavity-free. What we may not know is that our children's oral health can affect their school performance — for better or for worse.

Research conducted at the Ostrow School of Dentistry at the University of Southern California found that poor oral health, dental disease and tooth pain can put children at a serious disadvantage in school. Researchers examined nearly 1,500 socioeconomically disadvantaged elementary and high-school students in the Los Angeles School District, matching their oral health status to their academic achievement and attendance records. Children who reported having recent tooth pain were four times more likely to have a lower grade-point average than children without oral pain. Dental problems also caused more absences from school for kids and more missed work for their parents.

"I know of children who have missed many days of school due to oral pain and infection, and some of them have

even been sent home from school because of tooth pain," says Dr. Sanjukta Mohanta, a dentist who works at a community health centre in Brampton. "Some of them do not smile, talk or engage with others. Not only do they miss school, but poor oral health also affects their self-worth, which decreases their motivation to learn and socialize."

Poor oral health has also been linked to sleeping problems, as well as behavioural and developmental problems in children, according to the Government of Canada's report *The Effects of Oral Health on Overall Health*. It can also affect a child's ability to chew and digest food properly, which can affect growth and development. Dr. Mohanta says she has seen many children who have experienced problems eating and sleeping, which has affected their ability to learn and thrive. "Their mouths hurt so much that they are up all night in pain and they stop eating. They don't eat their lunch because their mouths hurt."

Parents need to know that oral health has effects beyond the mouth, adds Dr. Mohanta. "It affects quality of life and overall health. When children's oral health suffers, so does their ability to learn. Poor oral health in children ultimately affects their success later in life."

One-third of all surgeries performed in Canada on children between the ages of one and five are related to tooth decay.¹

Top tips for achieving success

Prevention is always easier than treatment. Here's how you can help your young scholars keep a healthy smile and perform to the best of their ability in school:

Make oral health a priority

"When parents are getting their children ready for back-to-school in September, they should add one more thing to the list besides buying school supplies and school snacks — making an appointment with the dentist," advises Dr. Mohanta. "They will start off the school year with an A+ smile."

Start early and keep it up

The Canadian Dental Association and the ODA both recommend that children see a dentist within six months of eruption of the first tooth or by one year of age. "This is an important visit, as the dental team will educate the parent(s) or caregiver(s) about proper oral hygiene, healthy eating and prevention of oral disease," says Dr. Mohanta. Why all the fuss over baby teeth, when they're just going to fall out, anyway? "If baby teeth aren't cared for properly, they can decay, cause pain and infection,

and that can affect the spacing of permanent teeth,” says Dr. Ian McConnachie, a pediatric dentist in Ottawa and an ODA Past President. Parents should also book regular follow-up visits to catch and treat problems in the early stages and to prevent problems. Dental teams may recommend sealants to prevent tooth decay and sports mouth guards to prevent dental trauma, as well as apply fluoride to strengthen tooth enamel. “Routine

dental visits decrease oral disease, which will decrease days missed from school due to dental problems,” says Dr. Mohanta.

Be vigilant about the sweet stuff

Major causes of tooth decay are sugary, sticky foods and beverages, says Dr. McConnachie. Limiting how much and how often your child consumes foods and beverages that contain sugar will

help prevent cavities. Choose water over fruit juices or carbonated beverages, and try to keep the sugar out of snacks, too. While granola bars and raisins may sound healthy, they’re not great foods for growing teeth, since they’re high in sugar and stick to the teeth. Instead, choose tooth-friendly snacks like cheese cubes and raw fruits and veggies the majority of the time. (For more information on how sugar affects the teeth, see page 22.)

Don’t underestimate the basics

Brush and floss, brush and floss, brush and floss. That’s basically the drill in order to avoid the drill. Make sure your child brushes at least two minutes a day, twice a day, and as

In Canada, dental-related issues are the most common reason children miss school. This accounts for more than 2.26 million school days a year.²

In 2000, the Centers for Disease Control and Prevention in the United States reported that dental caries (cavities and decay) is the most common chronic childhood disease, five times more common than asthma in children aged five years through to 17 years of age.³

soon as at least two teeth are touching each other, help your child floss on a daily basis. In a study of 51 pairs of twins between 12 and 21 years of age conducted over two weeks, the New York University College of Dentistry found that tooth and tongue brushing plus flossing significantly reduced gum disease- and cavity-causing bacteria, compared to just tooth and tongue brushing.

The fallout

The following effects of poor oral health can have a significant impact on a child’s school performance:

- Pain and discomfort
- Difficulty focusing and concentrating
- Difficulty sleeping
- Difficulties chewing, which can affect growth and development
- Poor self-esteem and social isolation
- Speech development problems.

Be proactive

Parents should not wait until their children exhibit pain to take them to the dentist, says Dr. Mohanta. “By the time there is pain, the disease is severe, and often the offending tooth must be extracted.” And sometimes children can’t articulate that they have dental pain. “Some have had dental pain for so long that they think it’s normal to feel that way,” says Dr. Mohanta. “However, even though they’re not complaining, they may become irritable or display poor behaviour. Parents who brush their child’s teeth may see problems before the child complains.

This is another good reason for parents to brush their child’s teeth and for parents to take their children to the dentist regularly.” [yoh](#)

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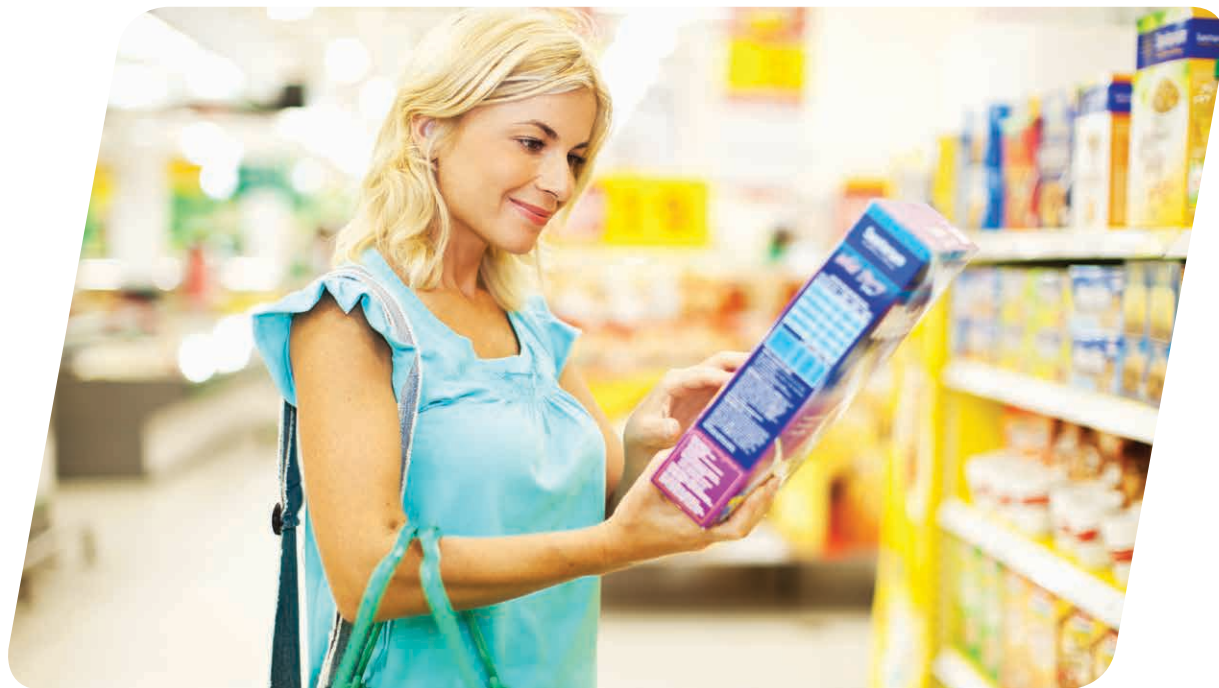
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The Health Halo Effect

By Shaylin Kemmerling

Are “natural” sugars better for my oral health?



You're in the grocery store, looking at a box of cereal. You're already running late. You see the word “natural” on the label and immediately choose this cereal over another without a second thought. Consumers often think that a product labelled as natural contains only natural ingredients. Not so! The use of the word natural on a food label casts what researchers call a “health halo” effect on the product.¹ A product that states it is natural means it does not contain any added ingredients and is in its original form.² A product that states it contains natural ingredients means that only some — not all — ingredients are natural, and it may be accompanied by some artificial ingredients.³

But what do all these definitions mean for your oral health? Dr. David Stevenson, President of the ODA, says that “some people consider honey or maple syrup healthy sugar substitutes as they are ‘natural,’ but they, too, contribute to tooth decay and gum disease.” Here, we look at the different types of sugars, replacing sugar with artificial sweeteners, taking care of our teeth after eating sugar and identifying sugar on a nutrition facts label.

Granulated white sugar

Granulated white sugar is a popular option, and it's the least expensive sugar with the longest shelf life. Its texture and chemical structure make it the choice sugar for baking leavened products, such as breads, cakes and muffins. Despite what many may think, white granulated sugar is not chemically altered or bleached during processing.⁴ However, white granulated sugar contains no vitamins, minerals or antioxidants, and for this reason, it is often described as having “empty calories.” A growing body of evidence is revealing that sugar consumption can induce a reward and craving response that is highly addictive.⁵

That's not good news for anyone trying to watch their weight or their oral health.

Honey

Eating honey dates back to the earliest civilizations. Honey is one of the most applauded natural sweeteners available because, aside from pasteurization, honey is sold to the consumer in its original form. And while honey does have more calories per tablespoon than sugar, since honey is naturally sweeter, you don't need to use as much. It's important to keep in mind,





however, that in Canada, honey is the only food linked to infant botulism, a rare but serious food poisoning caused by bacteria from *Clostridium botulinum* spores. Honey (including pasteurized honey and honey used in cooking) should not be fed to babies who are less than one year old.⁶

Some research states that honey has anti-bacterial, antiviral, antioxidant, anti-inflammatory and anti-tumour properties.⁷ A recent clinical trial on the use of honey to treat chemotherapy-induced mouth ulcers showed that using honey results in faster healing.⁸ Always be sure to speak with your health-care professionals before starting a new treatment of any kind. Many believe that honey, when purchased from local producers, contains the natural seasonal pollens from that geographic area, and that individuals with seasonal allergies who consume honey have reduced symptoms. Unfortunately, there is limited research to support this theory.⁹

Maple syrup

Maple syrup is a natural sweetener commonly found in many Canadian fridges, and it is considered a delicacy in other parts of the world. Maple syrup's claim to fame is that it contains certain vitamins, minerals and antioxidants. Be sure to look for dark syrup, as the antioxidant content of maple syrup is greater the darker it is. However, you would need to consume a large portion of maple syrup for it to be a significant source of vitamins and minerals in your diet. For instance, a four-tablespoon serving of maple syrup gives you



more than 100 per cent of the daily recommended intake of manganese, but only 37 per cent of riboflavin, 18 per cent of zinc, 7 per cent of magnesium, 5 per cent of calcium and 5 per cent of potassium.¹⁰ That same serving size is 208 calories and would be so intensely sweet that it would be hard to eat!

ASK THE DENTIST: What about replacing white granulated sugar with artificial sweeteners?

Health-conscious patients may be drawn to artificial sweeteners as an alternative to sugar in an effort to prevent tooth decay and gum disease. Dr. Stevenson stresses that "artificial and natural sweeteners, such as aspartame, saccharin, stevia and xylitol, may not contribute to tooth decay, but there may be other health risks associated with these products." Says Dr. Stevenson: "Xylitol has been shown to actually prevent tooth decay. Stevia is a very potent sweetener and may actually promote our desire for sweeter foods. Artificial sweeteners may stimulate, rather than satisfy, out craving for sweet foods."



How should I care for my teeth after eating sugar?

Dr. Madona Chockkeh, a dentist in Strathroy with a general practice, admits to enjoying a sugar-sweetened beverage on occasion. However, she says that "when it comes to consuming regular sugar-sweetened pop, coffee, tea or juice, limit the frequency. The acid produced by the bacteria decalcifies and demineralizes tooth enamel, resulting in tooth decay." And, she adds, "if you brush your teeth immediately after consuming a sugar-sweetened beverage, you are helping the acid brush away the enamel of the tooth."

How do I know how much sugar I am actually eating?

Today, the average person eats about 22.5 teaspoons of added sugar each day.¹¹ The World Health Organization recommends "adults and children reduce their daily intake of free sugars to less than 10 per cent of their total energy intake" (approximately six to 12 teaspoons) per day.¹² Most of this added sugar is hidden in premade and packaged foods. Currently, it is nearly impossible to distinguish between added sugars and naturally occurring sugars on a nutrition label. Anyone trying to limit added sugar in their diet should watch out for ingredients that end in "ose," which indicates the likelihood that sugar has been added to a food product. Dividing the grams of sugar on the nutrition label by four will identify the number of teaspoons of sugar in the product. (There are four grams of sugar in one teaspoon.) If this math calculation makes your head spin, don't forget to also factor in the serving size on the nutrition label in comparison to the amount you are actually eating!

Thankfully, the government of Canada is making its first major update to the nutrition facts label in years, in an effort to make nutrition labels more useful to Canadians and allow them to make well-informed food choices. One of the most significant changes includes a daily percentage value for sugar (see the labels below). A product with a 5

per cent or less daily value would be considered low in sugar. A product with a 15 per cent or more daily value would be considered high in sugar. All food manufacturers may follow the current label requirements or the new requirements until December 14, 2021, when the new nutrition facts label requirements must be applied.¹³

yoh

ORIGINAL		NEW	
Nutrition Facts Valeur nutritive		Nutrition Facts Valeur nutritive	
Per 250 mL / par 250 mL		Per 1 cup (250 mL) pour 1 tasse (250 mL)	
Amount Teneur	% Daily Value		% Daily Value*
	% valeur quotidienne		% valeur quotidienne*
Calories / Calories 110		Calories 110	
Fat / Lipides 0 g	0 %	Fat / Lipides 0 g	0 %
Saturated / saturés 0 g + Trans / trans 0 g	0 %	Saturated / saturés 0 g + Trans / trans 0 g	0 %
Cholesterol / Cholestérol 0 mg		Carbohydrate / Glucides 26 g	
Sodium / Sodium 0 mg	0 %	Fibre / Fibres 0 g	0 %
Carbohydrate / Glucides 26 g	9 %	Sugars / Sucres 22 g	22 %
Fibre / Fibres 0 g	0 %	Protein / Protéines 2 g	
Sugars / Sucres 22 g		Cholesterol / Cholestérol 0 mg	
Protein / Protéines 2 g		Sodium 0 mg	0 %
Vitamin A / Vitamine A	0 %	Potassium 450 mg	10 %
Vitamin C / Vitamine C	120 %	Calcium 30 mg	2 %
Calcium / Calcium	2 %	Iron / Fer 0 mg	0 %
Iron / Fer	0 %		
		*5% or less is a little, 15% or more is a lot *5% ou moins c'est peu, 15% ou plus c'est beaucoup	

A comparison of nutrition facts labels. The new version is on the right.¹⁴ Image from Health Canada, July 2017.



Xylitol

Xylitol is a sugar-alcohol (it's not alcoholic, though, as it doesn't contain ethanol, which is in alcoholic beverages) found naturally in fruits and vegetables, and it is artificially made from the fibrous parts of plant materials, such as birch and beechwood.¹⁵ Not only does xylitol reduce bacteria in the mouth from secreting acid, which protects tooth enamel, but xylitol also prevents bacteria from sticking to teeth, which reduces plaque buildup. Xylitol also promotes tooth enamel mineralization and decreases the existence of cavities by increasing your flow of saliva when used as chewing gum or large lozenges. It also decreases xerostomia (dry mouth), gum inflammation and tooth erosion.¹⁶ Talk about a superhero for your oral health!

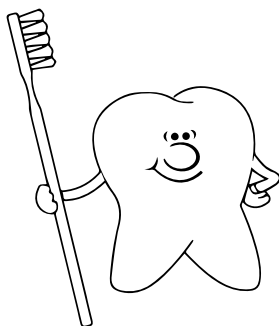
Diet Soft Drinks

Most people know that sugary drinks are bad for your teeth, but many people may be surprised to learn that diet soft drinks are, too. Although diet soft drinks don't contain sugar, they are acidic. Phosphoric acid is added to soft drinks to give them that characteristic "bite" or tartness. Unfortunately, this acid can erode enamel and make teeth more susceptible to cavities. The safest substitute for sugary drinks is non-carbonated, unsweetened water.

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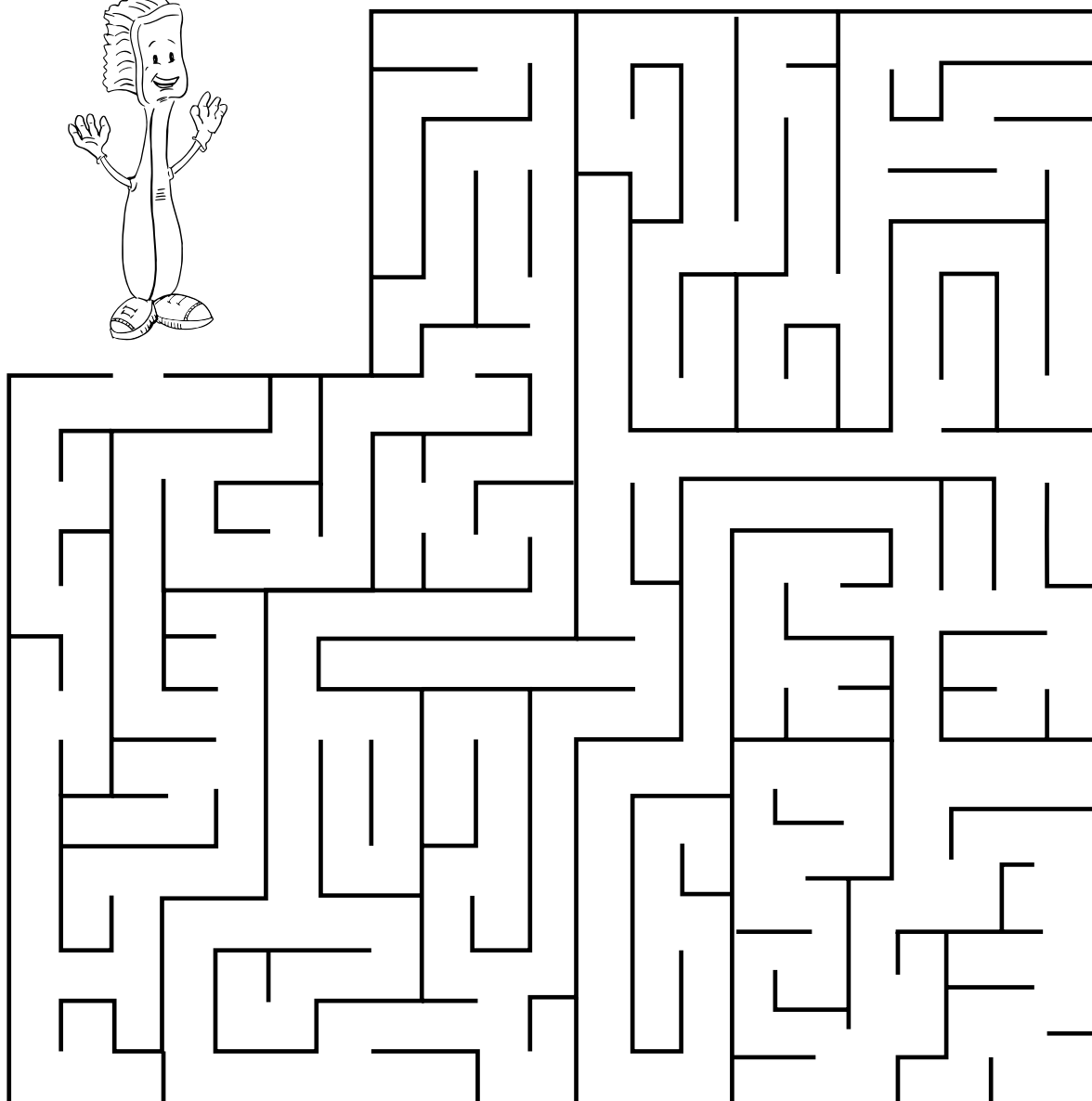




Dental

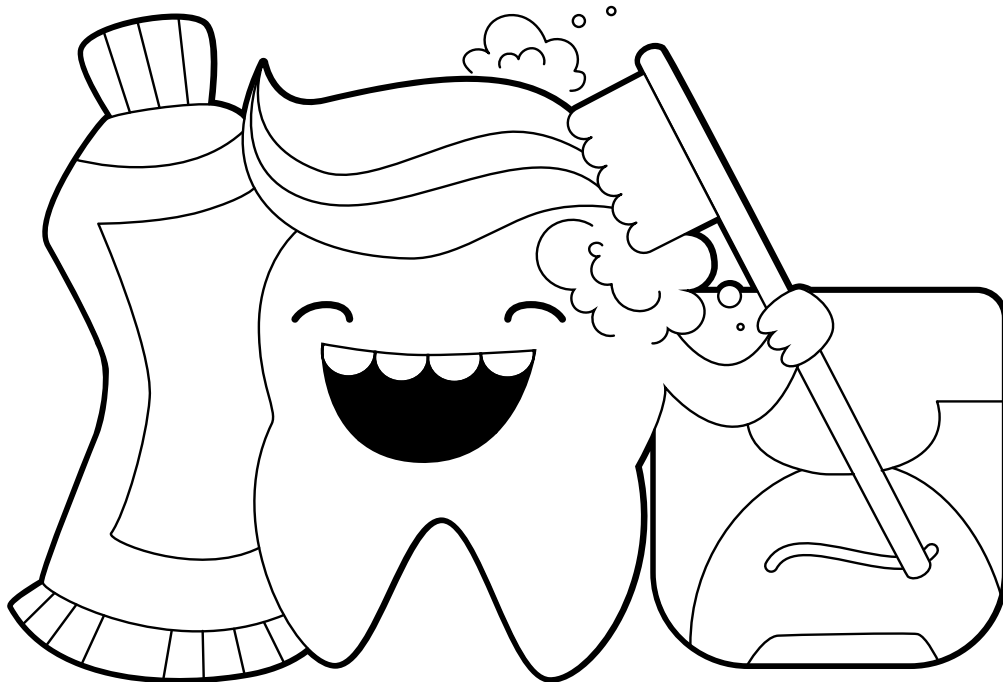
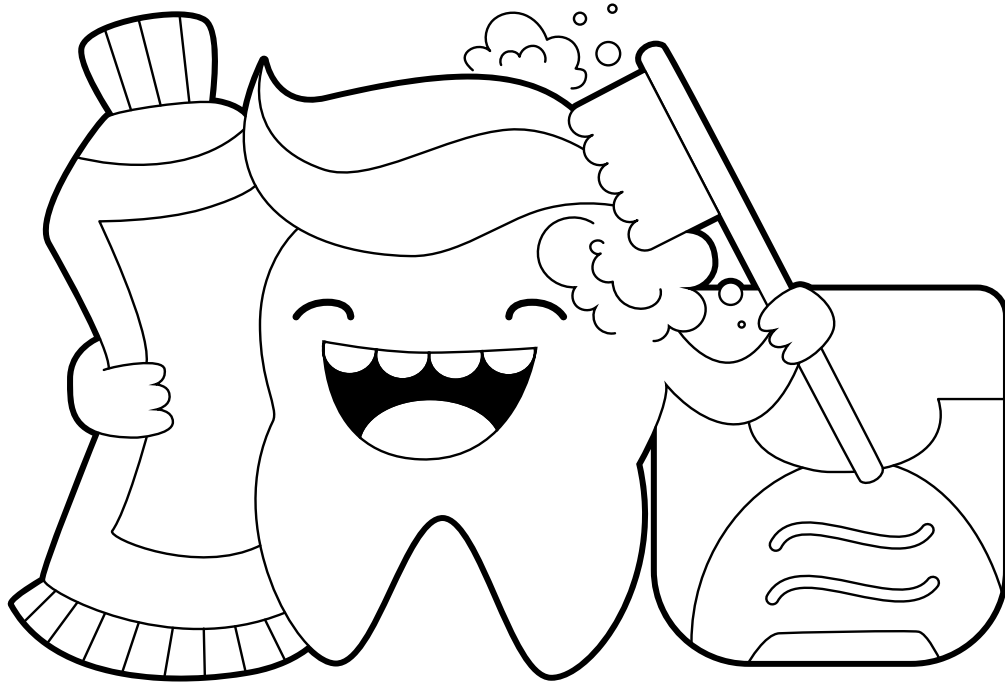
Find Your Way!

Help the toothbrush get to the other side!





Dental Spot the Differences!





**BRUSHING YOUR TEETH IS
ONLY HALF OF THE ROUTINE.**

REGULAR DENTAL APPOINTMENTS MAKE UP THE OTHER HALF.

Congratulations! You made it to the dentist. But then there's everyone else...people you love who haven't been to the dentist in far too long. Help them keep their teeth looking and feeling as good as yours!

Remind them to book a dental appointment today.

*Your Teeth
Are Worth it.*