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Restrictive Diets and Oral Health

What You Need to Know

# YOUR ORAL HEALTH ASSOCIATION



# A valuable resource for your patients.



# YOUR ORAL HEALTH.ca

Winter 2018

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#### Mission of the Ontario Dental Association

At the Ontario Dental Association we provide innovative and inspired leadership to deliver exceptional value by:

- Promoting the highest standards of dental care and supporting our diverse membership in their pursuit of professional excellence and personal fulfillment;
   Fostering a collaborative workplace environment which
- Fostering a collaborative workplace environment which promotes creativity and personal growth while celebrating achievements; and
- Advocating with a unified voice for accessible and sustainable optimal oral health for all Ontarians.

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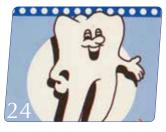
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# Welcome



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

Picture this: you're at a cocktail party, enjoying yourself with friends. Conversation turns to travel and recently visited destinations. One friend is interested in Iceland. "What is the name of the airport in Iceland?" she asks. No one knows. If your friends are anything like mine, inevitably the response will be: "I will search the web for it!" There's no doubt that the Internet has simplified the ability to find information very quickly — but in some cases, that information can be dubious or even completely erroneous. As the Medical Director of the Dental Oncology Program at the Northeast Cancer Centre/Health Sciences North in Sudbury, I am greeted by patients every day who have already done their research via the Internet and have come to our appointment armed with what they believe to be vital information about their disease, their symptoms and even their prognosis.

Every dentist working today has a similar story. It is human nature to want to find out as much as possible about a particular condition. But when it comes to your oral health, your dentist wants you to ask him or her these questions. Part of our treatment plan for each patient consists of questions and concerns the patient brings to us. Dentists are the experts and can give you much more accurate information that is tailored exclusively for you. And the next time you visit the Internet with your oral health questions, please check out our website — *YourOralHealth.ca* — which has lots of information that has already been reviewed and approved by our member dentists.

Do you have a family member who is a vegan or a vegetarian? Our cover article answers your questions about restrictive diets and oral health.

One of our articles in this issue of *YourOralHealth.ca Brought to You by the ODA* focuses on the questions that dentists wish their patients would ask. As our Consulting Editor Dr. Ian McConnachie says, "No question is inappropriate to ask in the [dental] office."

Another article in this issue touches on a program near and dear to me: the Oral and Maxillofacial Rehabilitation Program (OMRP). The OMRP was established by the Ontario government and helps anyone with an oral defect. The work done by these health-care professionals is nothing short of phenomenal. As a program lead, I work with patients at the OMRP site in Sudbury. There is a wealth of valuable information about the OMRP, as well as contact details for each Ontario OMRP location, available online at health.gov.on.ca/en/public/programs/omrp/.

In this issue, we also feature an article on immune system disorders and their effects on your oral health, as well as practical information for students who may be living away from home for the first time and may need advice on avoiding unhealthy habits. (Actually, we all need that advice!)

The ODA represents more than 9,000 members — or nine out of 10 dentists in Ontario. With each issue of *YourOralHealth.ca*, we continue the ODA's and dentists' tradition of providing the public with current, trustworthy information on oral health.

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. Contact us at yoh@oda.ca.



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Bonnie Dean is the ODA's Manager, Communication and Public Affairs. Her interests include writing, web design and creating the perfect PowerPoint presentation. She lives in downtown Toronto and is proud to report that she flosses daily.



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



Sophie Lamoureux is a research associate at the Dental Clinic in the Northeast Cancer Centre, Sudbury, and is currently completing her master's in science communication. She is from Sudbury and hopes to practise medicine in her hometown. Sophie loves dogs and kids; however, she has neither and relishes her frequent visits to her parents' house, where they have two very energetic, loving dogs.

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.

# Vitamins, Minerals and Nutrients: The Impact of Restrictive Diets on Your Oral Health

By Catherine Solmes



A restrictive diet is one in which certain foods are reduced or eliminated from the diet completely. Sometimes a restrictive diet is followed by choice, such as for ethical or religious reasons, and sometimes it's medically prescribed. Regardless of why a restrictive diet is followed, it can have unwanted effects on our oral health that should be considered. It is recommended that you advise your dentist, doctor, dietitian and other health-care professionals of any changes to your diet in order to ensure that you maintain the best possible oral and overall health.

Here we look at some common restrictive diets, their purposes and how our oral health might be affected by them. We spoke to the ODA's Vice-President, dentist Dr. Kim Hansen, and Toronto-based registered dietitian Julia Stanislavskaia for their expert advice.

### Vegetarian/vegan diet

Vegetarian and vegan diets are often chosen for ethical reasons, but they can occasionally be medically advised. At its core, a vegetarian diet is one that eliminates meat in favour of plant-based foods. Some variations to the vegetarian diet eliminate meat, but include dairy products, eggs and other animal products, and some eliminate only red meat, but include chicken, fish, dairy products, eggs and other animal products. The vegan diet, including all variations, eliminates all animal products, and those who choose to follow a vegan diet may also reduce their use of non-food products (including wool, beeswax and leather) that also

For those who eat a predominantly plant-based diet, acid erosion may be of higher concern due to increased consumption of acidic foods like fruit. According to Dr.

Hansen, acid erosion is "the irreversible loss of tooth structure and enamel due to ongoing exposure to an acidic environment." If you're concerned about possible acid erosion, the best place to go for advice is your dentist, says Dr. Hansen, who has a dental practice in Prescott, since your dentist can help "identify all the parameters that may be the cause from a medical, dental and dietary aspect." Solutions to decreasing damage from acid erosion range from drinking water after eating acidic foods to neutralize the pH in your mouth to using toothpaste that contains high amounts of fluoride to protect the damaged tooth

contain animal products.

enamel. In addition, for those with acid erosion or the risk of acid erosion, it is essential to ensure that your nighttime oral health-care routine is thorough because "saliva flow decreases immensely when we sleep, and factors like mouth-breathing and snoring only enhance a drier environment for bacteria growth," he says.

# The importance of vitamins and minerals in our diets

Vitamins B12 and B2 (or riboflavin) are two nutrients that may be lacking in vegan and vegetarian diets, as the highest sources of B2 are animal products, and B12 is found in animal products almost exclusively. Vitamin B12 is key to the normal functioning of our brains and nervous systems, and vitamin B2 helps our body cells use fat, protein and carbohydrates to produce energy. Deficiencies in vitamin B12 and vitamin B2 can cause canker sores, burning mouth syndrome and inflammation of the tongue

(glossitis), among other oral health issues. Vegans and vegetarians who avoid

animal products should look for foods fortified with vitamins B2 and B12 such as breakfast cereals, soy products and nutritional yeast.

It is important to note that "nutritional deficiencies may become more of a concern as time goes on," says Stanislavskaia. She cites the example

of a diet that is B12-deficient can lead to some serious health concerns, particularly considering that as we age we absorb less B12. Animal product-free diets in particular can lead to B12 deficiencies, she says, and blood work is necessary to identify a deficiency. See your doctor if you're concerned

about having a nutritional deficiency.

Vitamin D is produced by our bodies from the exposure of our skin to sunlight and is added to milk and other dairy products. Calcium is found in dairy products and in some dark, leafy greens, some fish with bones and other foods. Both vitamin D

and calcium could be lacking in those who follow vegetarian and vegan diets.

Vitamin D and calcium are essential for developing and maintaining healthy teeth and bones. And vitamin D controls our ability to absorb calcium and regulate cell growth. While supplements are very good options for a diet that's lacking in nutrients, it's always best to get our daily recommended intake from food sources, says Stanislavskaia. "Supplements can help manage and prevent deficiencies, but they are not equivalent to food (or in the case of vitamin D, exposure to sunlight) and should be thought of as an adjunction to your diet, rather than a solution or main source."

Some alternate vegetarian- and vegan-friendly vitamin D sources include fortified breakfast cereals, fortified soy and

almond milks, fortified tofu and mushrooms. Alternate calcium sources include fortified almond milk, fortified breads, chia seeds, almonds and cooked leafy green vegetables such as rapini, chard, beet greens, collards, hemp hearts, and spring greens, as well as soy products such as tempeh.

### **Lactose intolerance**

Lactose is a type of natural sugar found in milk and dairy products, and lactose intolerance occurs in people whose bodies cannot easily digest lactose. Some people with lactose intolerance cannot digest any milk products, and others can digest only small amounts of milk products or only certain types of milk products without any problems.



Milk and dairy products are excellent sources of vitamin D and calcium, and just as with vegans and vegetarians, those with lactose intolerance can experience a deficiency in these essential nutrients.

Non-dairy sources of calcium are cooked dark leafy

greens like collards, rapini, chard, beet greens, spinach, mustard greens and kale, soybeans, sardines, salmon and fortified beverages such as soy milk, rice milk and orange juice. According to Stanislavskaia, vitamin D is naturally present in very few foods, so it's unlikely anyone would get the optimal daily amount from consuming them. Vitamin D is often added to food products like orange juice and breakfast cereal, but the best way to get the right amount of vitamin D is by exposing our bare skin to the ultraviolet rays produced by the sun, causing our

bodies to create the vitamin. The general rule is that to

make sure you get enough time in the sun, you should aim to be outside for half the time it takes for your skin to start to burn, according to California's Vitamin D Council. In Ontario, we do not get optimal amounts of sunshine between October and May, supplements may necessary. This is good advice for any Canadian, but for those with lactose intolerance or for those following a vegan or vegetarian diet, this is especially important. Talk to your doctor or a dietitian for advice on supplements.

### **Gluten-free diet**

Celiac (or coeliac) disease is an autoimmune disease that causes a reaction to certain proteins (collectively called gluten) that are present in wheat, rye, barley and oats. Some of the manifestations of the disease may be through dental problems like tooth enamel defects such as discolouration and pitting, as well as canker sores/mouth ulcers and dry mouth. Those with celiac disease or gluten sensitivities may be advised by their doctors to eliminate gluten entirely from their diets in order to regain their health and prevent future damage. But gluten can be difficult to completely eliminate from a diet, as it can be found in many products that aren't wheat products such as salad dressing, ice cream, sausages, soup and syrups. Many processed foods that claim to be gluten-free may not be entirely gluten free at all.

These gluten-free foods may also be lower in fibre and higher in added sugar to make up for the lack of gluten. "Stick to shopping around the perimeter of the grocery store, avoiding the centre aisles as much as possible," says Stanislavskaia. "Most grocery stores will stock the fresh fruit and vegetables, meats and dairy products around the perimeter, with the processed foods in the centre aisles. Opting for simple glutenfree grains like buckwheat, amaranth, millet and quinoa, rather than focusing on processed foods, is best," she says. "Generally, when shopping for gluten-free foods, look for shorter and simpler ingredient lists."

A diet that's high in sugar, such as some glutenfree diets, can result in damage in a relatively short amount of time, says Dr. Hansen. It's important to be aware of food ingredients and to read ingredient labels to be able to moderate sugar consumption. Sports drinks, soft drinks, and coffee and tea with sugar are just a few examples of foods that are commonly consumed daily that contain added sugar, says Dr. Hansen. On top of these added sugars, many foods, such as fruit, contain natural sugars that add to our total sugar intake. While moderating sugar

consumption is important, a good oral healthcare routine that includes brushing

with fluoride toothpaste, flossing and regular dental appointments will make sure that you are maintaining optimum oral health.



### More good advice

With any restrictive diet, it is important to understand ingredients, to read product labels carefully and to supplement your diet with alternative nutritional sources, says Stanislavskaia. In general, sticking to fresh, whole foods and minimizing consumption of processed foods, which have little nutritional value, is good advice for everyone, but particularly for those who are following a restrictive diet. A general rule is that a simpler and shorter ingredients list usually means that a product is less processed, and you can understand what's actually in it. And, says Stanislavskaia,

"if you are looking for a food that is a good source of a particular nutrient, look for a greater than 15 per cent daily value (DV) per serving on the packaging. This indicates that the food is a significant source of that nutrient."

Whether your restricted diet is medically advised or is a personal choice, it is best to involve your dentist as soon as possible, so you can understand the implications it could have on your oral health. Since each patient's needs vary, treatment will be tailored to address these specific needs through ongoing communication with your dentist. If possible, it's beneficial to

include a dietitian as part of a medical team advising you on the best ways to ensure your body gets the nutrients it needs to maintain optimal overall health. Ideally, you will have a team of health-care professionals working together, ensuring you are as healthy as you can be, while being sensitive to your beliefs and needs.



Check dietitians.ca for recommended daily intake amounts and food sources of vital nutrients.

For more information about registered dietitian Julia Stanislavskaia and her company, Health By Nutrition, please visit hbnlife.com.

# Sit Tight: The Dental Chair Through the Ages

### By Catherine Morana

Can you imagine being treated in any of these dental chairs?

Today's dental chair is sleek, plush and designed with the comfort of the patient in mind. But it wasn't always that way.



A dentist pulling a prospector's tooth in Osnaburgh, ca. 1910.

Copyright primarily held by the Crown and used with permission of the Archives of Ontario, RG 2-71, CNO-3, 10004055.

During pioneer times in Upper Canada, dental extractions were done in fairly primitive conditions. Most patients were treated by a local tooth-drawer, who most commonly treated their patients in a kitchen chair so they could grip the rungs as the tooth was pulled.<sup>1</sup>

Travelling dentists often brought their skills and instruments with them as they visited towns, but few could bring a comfortable dental chair along with them. If they didn't rent a room, extractions were performed wherever they found their patient: in a wagon, at the farm or in their home.

The modern dental chair has its roots in the efforts of an American dentist, Josiah Flagg, who first added a headrest and an armrest to a Windsor household chair in 1790.<sup>2</sup> But the chair didn't recline.

Some dentists in the 18th and 19th centuries found the rocking chair more suitable for this, as the rocking chair permitted movement back and forth, and it could be propped up with a log so the patient reclined.<sup>3</sup>

Like Dr. Flagg, many in the profession crafted their own chairs. By 1832, Englishman Dr. James Snell improved on this by creating an adjustable seat and back, with a moveable headrest and footstool.



An illustration of the first moveable dental chair, made by Dr. James Snell who advised that: "No manufacturer indeed, can be expected to make a suitable chair, except under the direction of a good dentist..." 
Image from *A Practical Guide to Operations on the Teeth*, by Dr. James Snell, 1831, Creative Commons, University of Bristol, Internet Archive.

In his treatise, Dr. Snell outlines what a good dental chair must possess: It must allow a patient to sit in a variety of positions necessary to their ease and to the convenience of the dental operator. All equipment and necessary tools must be attached or handy and it must also have a firm footrest attached that is adjustable. Dr. Snell's helpful guide would spark an interest in the specialization of dental chairs.<sup>6</sup>



Dental chair (1885–95), Museum of Health Care at Kingston, Crawford Collection.

The Museum of Health Care at Kingston catalogue dates this chair to the late 19th century, as metal bases didn't come about until 1888. A splendid chair, it allowed the patient to recline against a headrest, but height adjustment isn't one of its features. Its beautiful tapestry cover likely posed a problem with staining and cleanliness.

Used with permission of the Museum of Health Care at Kingston.



In the early days, many dentists worked standing up. Often, dentists worked with their backs to the sunlight to take full advantage of the daylight shining into the patient's mouth. Without any electricity, it wasn't uncommon to ask a patient to hold up a candle when needed during an operation. Most of the earliest chairs were wooden and operated by hand-cranked levers.

By the mid-1800s, dental manufacturers began producing chairs for the profession. Unique patents appeared, allowing the dentist to raise and lower a seated patient (1860 by Whitcomb).8 By 1871, S.S. White produced the first all-metal frame chair.9

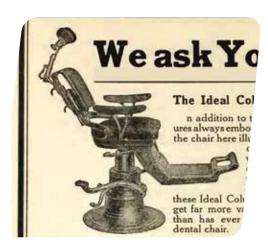


Dental chair (1890-1900), Museum of Health Care at Kingston. Accession number: 010020009 a-c. It is believed to be made by the Harvard Dental Company of Canton, Ohio.

This chair permitted dentists to adjust the height, headrest and footrest for the patient. Its sprawling legs must have made it difficult for standing dentists to manoeuvre around their patient. In 1888, the Ritter Dental Manufacturing Company produced the first dental chair with a round metal disk at its base.



A Wilkerson dental chair late 19th century. Used with permission of the National Museum of Dentistry, University of Maryland School of Dentistry.



The Ritter Dental Manufacturing Company introduced the round metal base to dental chairs, which made it easier for dentists to treat their patients. The Columbine chair would set a dentist back \$230. Image from The Hya Yaka. Toronto, Vol. 10, February 1912, p. 20. Internet Archive, University of Toronto, Harry R. Abbott Dentistry Library.

In 1877, American dentist Dr. Basil Manly Wilkerson patented his first pump hydraulic dental chair. Later models in 1886 shifted between three different heights. Dr. Wilkerson would later perfect a model that permitted a patient to lie in a fully horizontal "anesthetic position."10

Commercial dental stools began appearing in the market in 1870, yet many dentists still stood when treating patients.11 Gone were the hand-cranked models; now a specialized dental chair reflected the emerging specialization of the dental profession.<sup>12</sup>



A 1907 dental chair by S.S. White Dental Manufacturing Company.

At the turn of the century, dental manufacturers adopted clean and sleek designs, offering more comfort for their patients and a much more modern look. Dental manufacturers in Ontario included Goldsmiths Bros. Smelting and Refining Co. Limited; Claudius Ash, Sons & Co.; S.S. White Co. of Canada Limited; and National Dental Co. Limited. Image from the Virtual Dental Museum (virtualdentalmuseum.org). Used with permission of the A. W. Ward Museum, Institute of Dental History and Craniofacial Study, University of the Pacific, Arthur A. Dugoni School of Dentistry.

The Morrison dental chair, created in 1887, was popular for its extraordinary range of height movement, allowing dentists to either sit or stand.<sup>13</sup> But it wasn't until the advent of modern contoured dental chairs that most dentists took a seat.<sup>14</sup>



The modern contoured dental chair — an A-dec 500 — a top-of-the-line chair, with scientific pressure mapping.

The chair synchronizes with the motion of the patient.
Image from A-dec International Inc.

But not everyone was happy. One Canadian dentist complained about the headrests of the manufactured dental chairs, finding them small and uncomfortable: "another serious objection, which persistently tires my patients, is the hollow caused between the back of the skull and the shoulders, by the distance of the head rest from the upper part of the back rest. I am repeatedly obliged to use a small roller-cushion to fit into this space.<sup>15</sup>

The sleek, fully reclining version of the dental chair of today emerged in the 1960s.

The first reclining contoured dental chair was created by Dr. Sanford Golden in 1958, but John Naughton is responsible for the design of the reclining dental chairs used today.<sup>16</sup>

James Wynbrant's book *The Excruciating History of Dentistry: Toothsome Tales & Oral Oddities from Babylon to Braces* reveals the story: Dr. Golden's design of a contoured chair was innovative. It allowed a patient to fully recline, but only operated as a single unit without any joints.<sup>17</sup> But in 1958, Naughton, a manufacturer of vibrating chairs, would attend a dental convention. Challenged by some dentists to create a more comfortable dental chair, Naughton would eventually create a reclining chair with joints that operated on hydraulic cylinders. He would later add a dentist chair for the comfort of the operator. By the late 1960s, Naughton's Den-Tal-Ez chair would become the most popular dental chairs chosen by dentists.

Today's reclining dental chairs are based on Naughton's jointed reclining model. His design would change how dentists operated; henceforth, most dentists delivered care from a sitting position. By the end of the decade, Naughton would sell his company for \$8 million. Not bad for a former Fuller Brush Co. (turned-vibrating-chair) salesman.

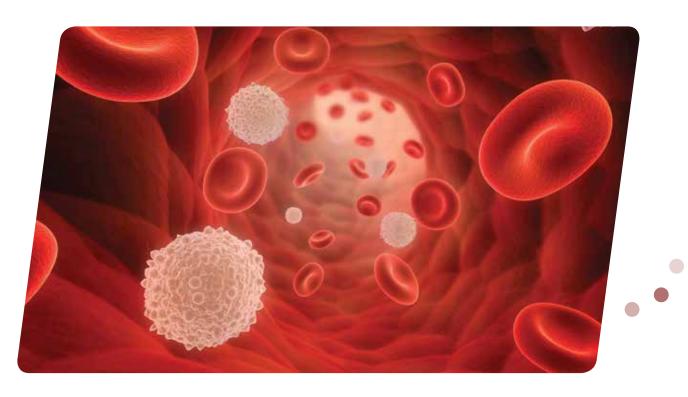
In the old days, dentists may have found it difficult to get patients to sit in the chair. Given today's comfortable dental chair, it may be hard to get them to leave it!

### **REFERENCES:**

- 1. Herrington, W. S. *Pioneer Life Among the Loyalists in Upper Canada*. Toronto: MacMillan, 1915, pp. 102–3. Project Gutenberg.
- 2. Glenner, Dr. Richard A. "The dental chair a brief pictoral history." *Journal of the American Dental Association*, Vol. 86 (1), January 1973, p. 38.
- 3. Ibid.
- 4. Ibid.
- 5. Snell, Dr. James. *A Practical Guide to Operations on the Teeth.* London: John Wilson, 1831, p. 58.
- 6. Ibid., p. 69.
- 7. Museum of Health Care at Kingston, Crawford Collection. museumofhealthcare.ca. Accession number: 0100200003 a-b.
- 8. Virtual Dental Museum. "Please Have a Seat: Evolution of the Dental Chair." virtualdentalmuseum.org. Used with permission of the A. W. Ward Museum, Institute of Dental History and Craniofacial Study, University of the Pacific, Arthur A. Dugoni School of Dentistry.
- 9. Glenner, Dr. Richard A. (1973), p. 42.
- Pierre Fauchard Academy Publications. "Basil Manly Wilkerson." fauchard.org/publications/42-basil-manlywilkerson.
- 11. Wynbrandt, James. *The Excruciating History of Dentistry: Toothsome Tales & Oral Oddities from Babylon to Braces.* New York: St. Martin's Griffin, 2000, p. 202.
- 12. Science Museum London. "Hydraulic dental chair, Europe, 1891–1910." http://broughttolife.sciencemuseum.org.uk/broughttolife/objects/display?id=4438.
- 13. Glenner, Dr. Richard A. (1973), p. 44.
- 14. Wynbrandt, James. (2000), p. 203.
- 15. "Head Rests." *The Dominion Dental Journal*, Vol. 1, July 1889, pp. 106–7.
- 16. Wynbrandt, James. (2000), pp. 204-5.
- 17. Ibid., p. 204.

# Immune System Disorders and Their Effects on Your Oral Health

By Bonnie Dean



Your body's immune system protects you from disease and infection. But if you have an immune system disorder, you are more vulnerable to health problems, such as heart disease and certain types of cancer. What is sometimes overlooked is the impact an immune system disorder may have on your oral health.

### What is an immune system disorder?

An immune system disorder is a disease or condition which is caused by a malfunction of the immune system. Your immune system is your body's own

naturaĺ defense mechanism. When a pathogen (such as a bacteria or a virus that causes disease) enters your body, your system produces white blood cells that attack it. And some parts of your immune system allow your body to recognize previous pathogens and destroy them. If your immune system is compromised, however, your health is at risk.

### Types of immune system disorders

If you have an autoimmune disease, your immune system overreacts and attacks the tissues or organs of your own body. The most common autoimmune diseases include: type 1 diabetes; rheumatoid arthritis; lupus; Crohn's disease; and Sjögren's syndrome.



If you live with an immunodeficiency disorder, you are missing one or more parts of your immune system, and your body has a hard time fighting against infections and diseases. You can be born with an immunodeficiency disorder or acquire one during your lifetime. Acquired disorders are more common and include HIV/AIDS; cancers What you can do

If you have an immune system disorder, it is very important to establish and keep a good oral hygiene routine. Prevention is key in reducing the impact on your oral health. This includes brushing and flossing your teeth twice a day and limiting foods that are high in sugar and acids.

"Close communication between the dentist and physician...can benefit the patient."

Be sure to see your dentist regularly. A dental exam can catch problems early — before you see or feel them — when they are much easier to treat. This is crucial, as having a weakened immune system may make it harder to treat infections of the mouth, like gum disease. Not only that, studies have shown that the bacteria from gum disease can travel around the body, creating new infections, which an already-compromised immune system can have trouble fighting.



of the immune system, like leukemia; and viral hepatitis. Chemotherapy, radiation and drugs, such as steroids, can also weaken your immune system.

Effects on oral health

The most common symptom affecting patients with immune system disorders is the amount of saliva that is produced. Dry mouth is a condition that occurs when the amount of saliva in your mouth dries up. Reduced saliva flow may lead to all kinds of problems, including bad breath, cavities, gum disease and mouth infections, as well as difficulty swallowing, eating or talking.

"Saliva has antibacterial and lubricating properties that keep the mouth healthy," says Dr. Medical Deborah Saunders, Director of the Dental Oncology Program at the Northeast Cancer Centre/Health Sciences North in Sudbury and the Editor-in-Chief of YourOralHealth.ca magazine. "The risk of tooth decay increases because of the change in your mouth's pH balance and the shift from healthy oral bacteria to those that are more cavity-causing."

Regular dental examinations can also reveal much more than the health of your teeth and gums. "The mouth is a window to your overall health," says Dr.

Saunders. "Ány change to your oral health can be a sign of changes in the status of your disease. Close communication between the dentist and physician in monitoring any change can benefit the patient."

You can manage the sideeffects of dry mouth by keeping the mouth moist and clean. "That is the environment that improves protection against cavities and gum disease," says Dr. Saunders. She suggests rinsing your mouth with a mixture of four cups of water, one teaspoon of salt and one teaspoon of baking soda. Other measures include taking frequent sips of water, sucking on sugar-free, non-acidic lozenges and avoiding mouth rinses that contain alcohol.



### Ask Your Dentist

### By Donna Paris

Instead of going straight to the source, many of us look to the Internet for oral health-related answers. Here's what dentists want you to ask them, instead



"The patient's dentist is in the best position to help them understand the big picture," says Dr. Stevenson. Here, he answers a few of the most common oral health concerns.

# Q: I'm really nervous about going to the dentist? Any tips?

A: "Our fears, no matter what they are, come from our own individual experiences. We can't change those experiences; we can only manage their effect. The key is to be open and honest with your dentist or dental hygienist. Their goal is to help you maintain optimal oral health. There are many ways to manage nervousness, and the only time it really becomes a problem is when fear prevents someone from seeking treatment in the first place."

We all have them — questions for our dentist. And they abound: queries about routine procedures, our kids' oral health and orthodontics. But here's the strange part: Do we actually ask our dentist? No. In fact, we often turn to the Internet. It's quick, it's easy and we don't have to be embarrassed about asking what we think may be a stupid question. But is it the best place to go?

"The answer lies in understanding limitations — the Internet has limitations, the patient has limitations and the dentist has limitations," says Dr. David Stevenson, ODA President-Elect, with a practice in Carleton Place. "The best way to minimize these limitations is for everyone involved to value the patient/dentist relationship first and foremost when making decisions about oral health."



Dentists answer questions every day. And the most important thing to keep in mind is that there are no stupid questions. "I'm happiest when patients become aware that no question is inappropriate to ask at the office," says Dr. lan McConnachie, a pediatric dentist from Ottawa.

# Q: What's cosmetic and what is necessary? How do I know if I really need a procedure?

A: "That's a difficult question because cosmetic procedures can be necessary, depending on the patient's expectations. If a patient expects to have a whiter smile, or perfect teeth, then a cosmetic procedure may be necessary to meet that expectation. I prefer to consider recommended treatment based on the following 'pillars of need,' in order of importance:

- **1. The need to treat or prevent disease.** This includes treating tooth decay with fillings, treating gingivitis with regular scaling appointments, treating localized infections through gum surgery or root canal therapy, and prevention and early detection of disease at regular recall visits, oral cancer examinations, appropriately prescribed X-rays, topical fluoride treatments and sealants.
- **2. The need to preserve tooth structure and oral function.** This would include crowns and bridgework, dentures, implants and orthodontics.
- **3.** The need to achieve esthetics appropriate to meet the patient's expectations. This can involve multiple disciplines, including whitening, bonding or veneers."



Q: If I'm in pain after a procedure, what should I take? When should I call my dentist?

A: "This depends on the procedure and the individual patient, as health or allergies options. mav limit medication should be discussed with your dentist. If discomfort is anticipated, possibly following

surgeries or root canal treatment, appropriate medication should be discussed at the time of the appointment. If unexpected discomfort occurs following a procedure, it's best to consult your dentist before taking any medication.'

### Q: How long does it take to perform procedures such as extraction, gum surgery and implants? Can I return to work right after the procedure?

A: "There is no simple answer to this question, as there are too many variables to each of these procedures. Before scheduling the appointment, ask the dentist the anticipated length of time required for the procedure. This may influence your decision to return to work. How appropriate it is to return to work will, again, depend on the nature and duration of the procedure. Remember: sometimes rest is best."

### Q: Is an oral cancer examination necessary? How often? I don't think my dentist does this.

A: "An oral cancer examination is absolutely necessary and is more than likely performed to some degree every time you see your dentist and, in particular, during an initial examination or at regularly scheduled appointments. Dental professionals are looking for signs of oral cancer by looking at a patient's face, into their mouth, feeling for abnormalities in their cheeks and neck or asking them to stick out their tongue. An oral cancer screening is part of any dental examination and isn't necessarily an independent procedure, so you may not always realize that it has been performed."

## Lots of questions about my child's oral health

We asked Dr. McConnachie our questions about taking kids to the dentist. First, however, he stresses what not to do: "Please don't make promises about what the dentist is or is not going to do. This may put the clinician in a position of not being able to deliver on those promises or not being able to complete what they had intended out of a desire to maintain or earn the child's trust."



### Q: What's the difference between a regular dentist and a pediatric dentist?

A: "A general dentist provides care for patients within a skill range that he or she feels is within their training. When the procedures or diagnosis are outside that range, then the dentist should refer the patient to another clinician with more specialized skill. A pediatric dentist is a primary care specialist for children from birth to about 18 years of age. They provide a broad range

of care for children, including those with medical issues or developmental special needs, with this care extending in some cases into adult years."

### Q: Is snacking bad for teeth? Can you give a few examples of good and bad snacks?

A: "If a food (or fluid) contains sugars of any type, it has the potential of starting the decay process. The longer it is in the mouth, the worse it is. So, sticky is bad, natural is better than processed food and fibrous texture does help clean the

tooth. Here are a few examples (and some may be a bit surprising): corn chips are better than potato chips (because the starch in potatoes will convert in the mouth to sugars as they break down); foods sweetened with xylitol (a natural sugar) can actually repair early cavities; sugar-free gum can reduce decay risk because it stimulates saliva flow."



### Q: What should I do if my child has a toothache?

A: "Do some of your own sleuthing first. When did it start? Is there anything you can see in the mouth that doesn't look right? Is there anything stuck in or between the teeth that you can floss out? Is there something that makes it worse — or better — such as hot, cold or sweet things? With this information, and if nothing has helped

thus far, you can consider giving something to manage the pain and see if this helps. If something still does not seem right, contact your dental office."

### Q: Are dental X-rays safe for kids?

A: "Dental X-rays provide a wealth of information, and modern films and machines have much lower radiation than in the past. That said, the dental profession also practises an approach called ALARA (As Low As Reasonably Achievable), meaning that we've significantly lowered the number of X-rays that we now take with children. Again, this is an issue we encourage you to discuss with your dentist: What X-rays are appropriate? Are there alternatives for finding this information? What methods does the dentist use to reduce radiation exposure for your child?"



# Q: What should we do if our child falls and knocks out a tooth?

A: "If the tooth is a 'baby' tooth, the area should be kept clean and any bleeding stopped. Call your dental

office to check whether they recommend seeing the child.



If the tooth is a permanent one, the best option is to gently clean the area where it came out, then, holding the tooth by the crown portion (the part of the tooth covered by enamel), rinse it off and gently and gradually ease the tooth back

into the socket, as far in as your child will tolerate. Once there, have the child gently bite down on a moist washcloth to keep the tooth in place while you go to the dental office. The success of this technique depends on the speed that you get the tooth back in position. The first 30 to 60 minutes give the best result by far. Once at the office, they will assess the situation and attempt to stabilize the tooth with a 'splint' to allow it to reattach. We often see excellent results with these techniques.

results.

If you don't feel comfortable repositioning the tooth in the socket or your child is too anxious to do this, then a second option is to place the tooth between the lower lip and teeth, after which you head to the dental office. The third option is placing the tooth in a container with cold milk before transporting. Both of these options, however, are not nearly as good in getting

# And finally, questions about orthodontics

Orthodontics can make a big difference in people's lives. Braces can give someone the confidence and self-esteem that come with a beautiful smile — and more. "Braces can provide people with a good fit of their teeth and a good bite, so important in the functions of speech, swallowing and chewing," says Dr. LouAnn Visconti, President of the ODA, with a practice specializing in orthodontics in Timmins. Here, she answers a few of the most common queries.

# Q: Is there an ideal window of ages when people should get braces?

A: "I treat patients of all ages, from young children — most often to break a thumb-sucking habit — to adults in their 60s. The age at which people seek or are referred for treatment may be dictated by

the problem that they have with their bite. For example: if the upper jaw is growing ahead of the lower one, it can be beneficial for treatment in the preadolescent to adolescent stages, to take advantage of an individual's growth to help align the jaws and therefore the fit of the teeth. Adults will often seek treatment to help align their bite prior to the replacement of missing teeth. In thumb-suckers, it is ideal to break the habit with treatment if they are unable to break the habit on their own, when they are about to start school."

# Q: What should patients *not* do after they get their braces? Any dietary restrictions?

A: "Patients must be careful with their diet. Limiting sugar and acids, as well as staying away from sticky and hard foods, such as toffee and peanuts that can break the braces or bend wires, are recommended. We certainly encourage eating healthy snacks such as apples and carrots; however, these should be cut into smaller pieces, so as not to break the braces or wires. Habits such as biting nails and chewing pens, which can also lead to broken braces, should be avoided."

# Q: If I am in pain after getting braces, what do you recommend I take?

A: "It is normal for your teeth to feel sore a few hours after an appointment and for the first several days, as they are in the process of moving. Tooth discomfort from orthodontic treatment is due to an inflammatory process. Because of this, ibuprofen is recommended, as it takes away the pain and is also an anti-inflammatory. Braces and wires can cause irritation of the inside of the lips and cheeks. To prevent and alleviate the discomfort caused, we provide soft orthodontic wax that can be applied over the braces, where the irritation is occurring."



Q: Do removable braces exist? If so, can they be removed to shower, sleep and exercise? A: "Yes, there are clear trays (called aligners) that can move teeth. These aligners are



provided in a series, which move the teeth gradually when worn full time. While these aligners are removable, it is recommended that they be worn 22 hours per day. The aligners are only effective in moving the teeth when they are in the mouth. If left out for long periods of time, the teeth that were in the process of straightening will move back to where they were. Ideally, the aligners should

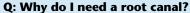
only be removed to eat and brush your teeth and the aligners themselves, as well as to drink anything other than water."

### Q: Are retainers really necessary?

A: "Retainers are absolutely essential following active orthodontic treatment. When teeth are straightened, the gum (which is attached to the teeth) may not move to the straight position of the tooth. Therefore, when the braces are removed, the pull from the gum can move the tooth back to its original position. Retainers help maintain the straight position of the teeth and prevent movement of the teeth back to their pretreatment position."

## Help! I need a root canal, and I have questions

At some point in your life, you may need a root canal, which is then capped with a crown. It's difficult to come up with umbrella answers, as every person and every case are different. "There is no one 'right way' to treat everyone, and all of these procedures and concepts are heavily influenced by the patient's unique situation," says Dr. Stevenson. "Every patient is an individual, and that's what makes caring for people's oral health such a personal service — and so much fun!" Here, he offers a basic primer.



A: "Root canal treatment may be necessary for different reasons. But whatever the reason, it is best to consider root canal treatment as a means to try and save the tooth. The nerves and blood vessels within the roots of our teeth can become infected through disease such as tooth decay, trauma from athletic injuries or as a result of long-standing large fillings. This infection will not heal by antibiotics alone. The infected material must be removed from the roots, and the space must be filled with a non-toxic biocompatible material."

#### Q: How long will the procedure take?

A: "To perform this procedure well, significant time is required. Sometimes multiple appointments are necessary, depending on the number and condition of the roots. Every situation is different, as the extent of existing infection can influence both the procedure and the recovery. The need for sedation or the desire to return to work is more dependent on the patient's comfort with the appointment, as opposed to the technical aspects of the procedure itself."

### Q: Will there be pain or discomfort?

A: "It is best to anticipate a certain degree of discomfort when chewing on the tooth for a few days following root canal treatment. So, plan for a nutritious diet that is comfortable to chew. (It is more than likely that discomfort was experienced when chewing before the root canal was performed due to the infection present.)"

### Q: Why do I need a crown?

A: "Not all teeth that have had a root canal require a crown afterward. But if the structural integrity of the tooth has been significantly compromised, a crown is often the best option to help save the tooth. Every situation is unique."

### Q: Why are a root canal and a crown performed at separate appointments?

A: "Most often, the crown procedure is accomplished at an appointment separate to the root canal. Some crowns can be provided in one longer appointment, but certain crowns require two appointments, depending on the process and materials required for optimal results."



# Dorm Dental Dangers

By Maggie Blood

# Why a toothache should never be part of the curriculum



Millions of Ontario college and university students are on their own at school, well away from the prying eyes of their parents. Some of these students are living solo for the first time, and while this new-found freedom may be fun and exciting, there's never been more reason for undergrads to maintain a healthy dental care routine.

In fact, it's a rather common occurrence for good habits to fall by the wayside, according to Dr. lan McConnachie, Consulting Editor of YourOralHealth. ca magazine, who says "university that and college students are known to reduce their frequency of getting regular dental exams. But the longer wait time in between visits to the dentist means increased risk of tooth

and gum decay." Dr. McConnachie adds that for students, the "quality and frequency of oral hygiene also tends to deteriorate, affecting teeth and gums."

Daily brushing and flossing, along with regular checkups at the dentist, are crucial to maintain because post-secondary

school life is filled with temptations that can have disastrous effects on mouths and teeth. Having spent nine and a half years at university herself, ODA President, Dr. LouAnn Visconti, says, "post-secondary school life can be fairly stressful, and it can result in developing habits that aren't always the best for not only your oral health, but also your overall health."

Some of these habits are ones that any of us can be guilty of, but with a lack of parental supervision on university and college campuses, students in particular are in danger of giving in to any of the following bad habits.



### lunk food

When cramming for tests or staying up late while researching for a paper, sugar, salt and calorie-rich convenience and fast foods can easily and usually do win out over nutritious snacks and nourishing meals. That alone can be a big factor in poor dental and overall health and well-being.



### Alcohol

There are no shortages of events on school campuses that can feature freeflowing alcohol. From the carbonation in beer to the acid and sugar in mixed drinks and wine, alcoholic beverages are not friends to your teeth. Overindulging in alcohol can cause cavities, enamel erosion or tooth sensitivity.

### **Smoking and vaping**

We all know how bad smoking and chewing tobacco are for us, and despite the popularity of vaping, there are still no conclusive, long-term studies indicating e-cigarettes are a safe or healthier alternative to smoking.



### **HPV and STIs**

For students who are sexually active, remember that safety has never been more important. Increasing research suggests the human papillomavirus (HPV) is the main cause of some mouth and throat cancers. Symptoms of other sexually transmitted infections (STIs) can also include mouth sores and other forms of oral inflammation.

Dr. Visconti says seeing your dentist regularly is so important because "your dentist can spot possible trouble long before you can see or feel it. Take advantage of the dental coverage included in tuition fees, or through your parent's work benefits and keep regular appointments with the dentist. Having a clean and healthy mouth means you can focus on your studies and social life instead!" you

### Dorm Room Snack and De-Stressing Tips

ODA President Dr. LouAnn Visconti remembers her days as a student at dental school and knows what it's like to cram for tests, grabbing whatever food is around to keep you going — whether it's healthy or not. That's why she suggests planning ahead by having healthy snacks within easy reach, day or night. "Keeping less-or non-perishable foods like bananas, oranges, nuts, seeds, peanut butter and crackers in your room is a good idea. If you have a small

fridge in your dorm, you can stock it with snacks like yogurt, cheese, berries, veggie sticks and hummus for a more nutritious and long-lasting energy boost."

Stress is also a major factor for students, and as a result, Dr. Visconti says that can lead to teeth grinding and clenching, sore jaws, headaches and even broken teeth. Getting proper sleep and having a good exercise routine are great ways to help manage stress levels throughout the semester.

### OMRP: Rehabilitation from the Inside Out

By Sophie Lamoureux



The Oral and Maxillofacial Rehabilitation Program (OMRP) was established by the Ontario government. The program provides funding for patients who need dental implants to hold an oral prosthetic device in place. Dental implants make it easier to chew, swallow and speak, and they can even improve confidence, patient independence and overall quality of life. The OMRP may help patients affected by head and neck cancer, those who have a cleft palate or patients living with facial trauma or oral defects from substance abuse.

To receive funding for implants through the OMRP, you need to be covered under the Ontario Health Insurance Plan (OHIP). Dental implant surgery is not suitable for every patient. In order to be eligible, you must also be a candidate for a maxillofacial intraoral prosthesis, funded by Ontario's Assistive Devices Program (ADP). Additionally, the OMRP is for patients who require implants in order to hold their ADP-funded prosthetic in place.

### A close-up with an OMRP specialist

Dr. Deborah Saunders is the Editor-in-Chief of YourOralHealth.ca magazine and Medical Director of Dental Oncology at the Northeast Cancer Centre/Health Sciences North in Sudbury, one of five sites that provides the OMRP services in Ontario.

Dr. Saunders is experienced in rehabilitation for oral defects and answers some common questions about the OMRP.

Which health-care professionals are involved in the care of eligible OMRP patients?

Dr. Saunders: "The treatment team that is involved with these cases is comprised of oral maxillofacial surgeons and prosthodontists, or dentists who have the expertise to plan and fabricate these prosthetics in conjunction with experienced dental lab technicians."

"Good oral health contributes positively to your physical, mental and social well-being and to the enjoyment of life's possibilities, by allowing you to speak, eat and socialize unhindered by pain, discomfort or embarrassment."



Specialized programs can have long wait times. How long does it take to be seen for this program? How long is the treatment itself?

**Dr. Saunders:** "Some sites have waiting lists of up to a year. The treatment timelines from start to finish can range from six months to more than a year, based on the complexity of the rehabilitation."

Some of the work you do is truly amazing. Patients come out of this program with a new-found confidence. How has this program positively affected the lives of your patients?

Dr. Saunders: "I have always held true to the Canadian Dental Association's definition of oral health:

'Good oral health contributes positively to your physical, mental and social well-being and to the enjoyment of life's possibilities, by allowing you to speak, eat and socialize unhindered by pain, discomfort or embarrassment.'

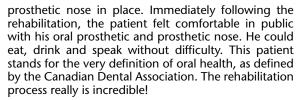
This quote speaks directly to the needs that this program serves. With this service and the expertise of my colleagues province-wide, we have the potential to uphold this definition, even under circumstances that may not seem possible."

### A changed life

Dr. Saunders shares this story that holds as an example of the Canadian Dental Association's definition of oral health.

One of her patients was diagnosed with nasal cancer that extended to the front of the jaw. He needed to have

his nose and the front of his jaw removed. After removing the tumour, the patient could not eat, drink or speak. Prosthetic rehabilitation started at the time of his cancer surgery. Implants in the upper jaw were required to hold the denture in place. An earth magnet was then used to hold the



For more information about the Oral and Maxillofacial Rehabilitation Program, visit the Ontario government's website listed here or contact an OMRP centre near you. Contact information for each Ontario OMRP location can be found online at:

health.gov.on.ca/en/public/programs/omrp/.

### **Ontario's OMRP centres:**

Health Sciences North, Sudbury London Health Sciences Centre, London Sunnybrook Health Sciences Centre, Toronto The Ottawa Hospital (Civic site), Ottawa University Health Network/Mount Sinai Hospital, Toronto 💆

### **GLOSSARY**

### Implant:

An artificial tooth root that is placed in the jaw to hold a replacement tooth or bridge. It looks, feels, fits and functions like a natural tooth.

### Oral prosthetic device or prosthesis:

An artificial device used to replace and reconstruct an oral defect, such as a missing tooth or a portion of the jaw or palate.

### Intraoral prosthesis:

A dental prosthetic device placed inside the mouth.

### **Prosthodontist:**

A dentist who specializes in dental prostheses, treating and handling dental issues that require restoration of missing teeth, a missing portion of the jaw or palate. A prosthodontist's expertise is in dental implants.

### Earth magnet:

A very strong magnet made from the Earth's elements, with a permanent hold.

### Sensitive Teeth

### By the American Dental Association

### I scream, you scream . . .

Is the taste of ice cream or a sip of hot coffee sometimes a painful experience for you? Does brushing or flossing make you wince occasionally? If so, you may have sensitive teeth.

### Possible causes include:

- Tooth decay (cavities)
- Fractured teeth
- Worn fillings
- Gum disease
- Worn tooth enamel
- Exposed tooth root

In healthy teeth, a layer of enamel protects the crowns of your teeth — the part above the gum line. Under the gum line a layer called cementum protects the tooth root. Underneath both the enamel and the cementum is dentin.

Dentin is less dense than enamel and cementum and contains microscopic tubules (small hollow tubes or canals). When dentin loses its protective covering of enamel or cementum these tubules allow heat and cold or acidic or sticky foods to reach the nerves and cells inside the tooth. Dentin may also be exposed when gums recede. The result can be hypersensitivity.

Sensitive teeth can be treated. The type of treatment will depend on what is causing the sensitivity. Your dentist may suggest one of a variety of treatments:

### • Desensitizing toothpaste.

This contains compounds that help block transmission of sensation from the tooth surface to the nerve, and usually requires several applications before the sensitivity is reduced.

### • Fluoride gel.

An in-office technique which strengthens tooth enamel and reduces the transmission of sensa-

### A crown, inlay or bonding.

These may be used to correct a flaw or decay that results in sensitivity.

### Surgical gum graft.

If gum tissue has been lost from the root, this will protect the root and reduce sensitivity.

### Root canal.

If sensitivity is severe and persistent and cannot be treated by other means, your dentist may recommend this treatment to eliminate the problem.

Proper oral hygiene is the key to preventing sensitive-tooth pain. Ask your dentist if you have any questions about your daily oral hygiene routine or concerns about tooth sensitivity.

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### **Are Your Teeth Sensitive?**

### Take our quiz on sensitive teeth to learn more!

• Everyone's teeth hurt when they bite into hot and cold foods. ☐ Fact ☐ Fiction

Not everyone suffers from hypersensitivity. In fact, it's usually a sign there's something wrong. There are many things that can cause sensitive teeth, including cavities, older fillings, gum disease, worn

tooth enamel or exposed tooth roots.

 Desensitizing toothpaste can help your teeth feel less sensitive. ☐ Fact ☐ Fiction

### A. Fact

Desensitizing toothpaste contains compounds that help block transmission of sensation from the tooth surface to the nerve, and usually requires several applications before the sensitivity is reduced. Look for those desensitizing toothpastes that carry the ADA Seal of Acceptance or the Canadian Dental Association's (CDA) approval.

• If you have sensitive teeth, you shouldn't drink coffee or eat ice cream. ☐ Fact ☐ Fiction



#### A. Fiction

If you suffer from sensitivity, make an appointment to see your dentist. Your dentist may recommend desensitizing toothpaste or an alternative treatment based on the cause of your sensitivity. Proper oral hygiene is the key to preventing sensitive-tooth pain. Ask your dentist if you have any questions about your daily oral hygiene routine or concerns about tooth sensitivity.

If you don't treat your sensitive teeth, you could be at risk for tooth loss.

□ Fact □ Fiction

It depends on the cause of your sensitivity. General sensitivity involving several teeth at the same time can be caused by gum recession which exposes the roots of the teeth. Sensitivity can also be a sign of cavities. Failure to treat a cavity can lead to an infection in the gums or jaw with pain, swelling, and risk of spreading to other areas of the head and neck in severe cases. It's best to find out the cause of the sensitivity as early as possible by visiting a dentist. As with many other health problems, early treatment is less costly and less invasive.



 There is no cure for sensitive teeth. □ Fact □ Fiction

### A. Fiction

Sensitive teeth can be treated. Your dentist may recommend desensitizing toothpaste or an alternative treatment based on the cause of your sensitivity. Proper oral hygiene is the key to preventing sensitive-tooth pain. Ask your dentist if you have any questions about your daily oral hygiene routine or concerns about tooth sensitivity.

Always remember to brush your teeth twice a day for two minutes and floss at least once a day.

Tooth sensitivity is usually a sign there's something wrong. There are many things that can cause sensitive teeth, including cavities, older fillings, gum disease, worn tooth enamel or exposed tooth roots. Sensitive teeth can be treated.

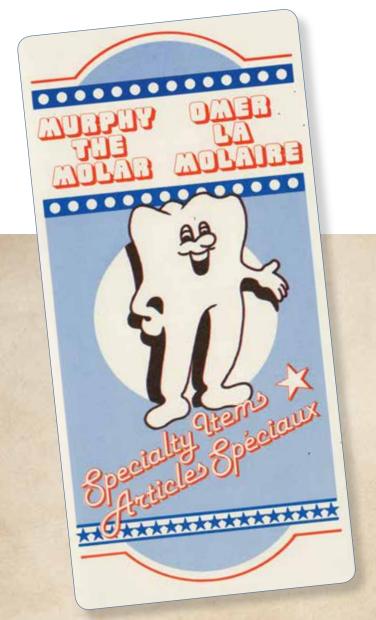
Your dentist may recommend desensitizing toothpaste or an alternative treatment based on the cause of your sensitivity. Proper oral hygiene is the key to preventing sensitive-tooth pain.

### FLASHBACK:

# Dr. Samuel Green and Murphy the Molar

By Julia Kuipers

If you attended school in Ontario in the '70s and '80s, you may remember a perky cartoon character, who resembled a tooth and proudly bore the name Murphy the Molar



Created by Toronto dentist Dr. Samuel Morris Green, the Murphy the Molar character was launched in January 1970. Many Ontario schoolchildren of the late 1970s and early 1980s will remember Murphy extolling the virtues of brushing and flossing. Murphy was the mascot for the Ontario Ministry of Health's dental programs throughout the 1970s. Through a province-wide marketing campaign that included TV commercials and dental office giveaways, the winsome Molar helped kids to develop good oral health habits.

Dr. Green passed away peacefully on September 10, 2017, at the age of 81. A well-known and personable public health dentist, Dr. Green held a number of appointments throughout his career, including Dental Director for the former cities of Etobicoke and York. He was a former President of the Ontario Association of Public Health Dentistry (an organization that provides oral health information and services for Ontario communities) and the Ontario Public Health Association (a nonprofit organization that promotes and provides leadership on health issues in Ontario). He once said in an interview that he came up with the idea to "identify good dental health habits for young children from all backgrounds and ethnicities. Murphy served preventive dentistry a very valuable service for many years."

As Murphy would say, "Don't be a tooth goof!" par

Copyright primarily held by the Crown.

Murphy the Molar Specialty Items brochure, [1973]. (Archives of Ontario, RG 10-13, transfer 84-325, box 68.)

# It's **time** to measure **your success!**



Sources: Health Canada, Canadian Cancer Society

# Did you know?

### Former smokers live longer than those who continue to smoke.

### You will notice:

- · Cleaner, fresher breath
- Fewer colds, coughs and breathing difficulties
- Your hair and clothes don't smell of smoke
- The stains on your fingers will slowly disappear
- · Less staining on your teeth
- More money in your pocket

### You will experience:

- More energy
- Less gum recession and disease
- Fewer incidences of chronic sore mouth and throat
- Fewer hacking coughs and chest infections
- · Less accumulation of tartar and plaque



Talk to your dentist about your options.

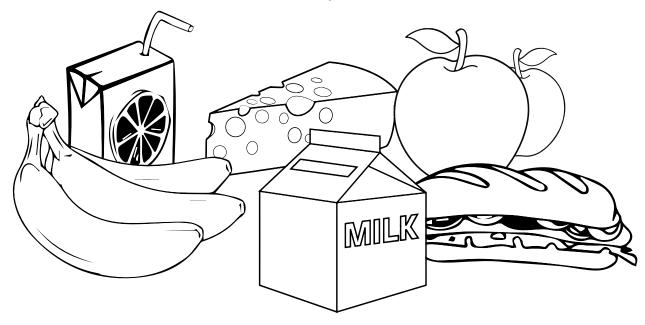
Visit www.youroralhealth.ca for more information.

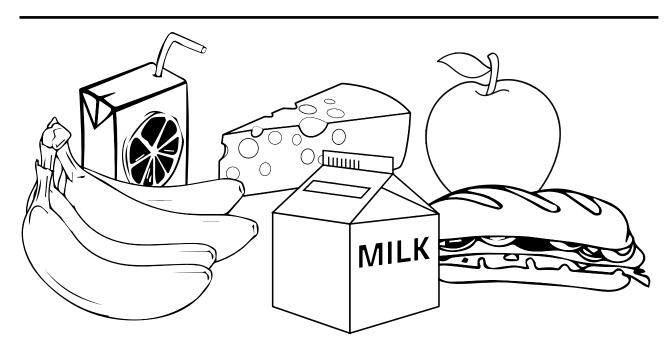


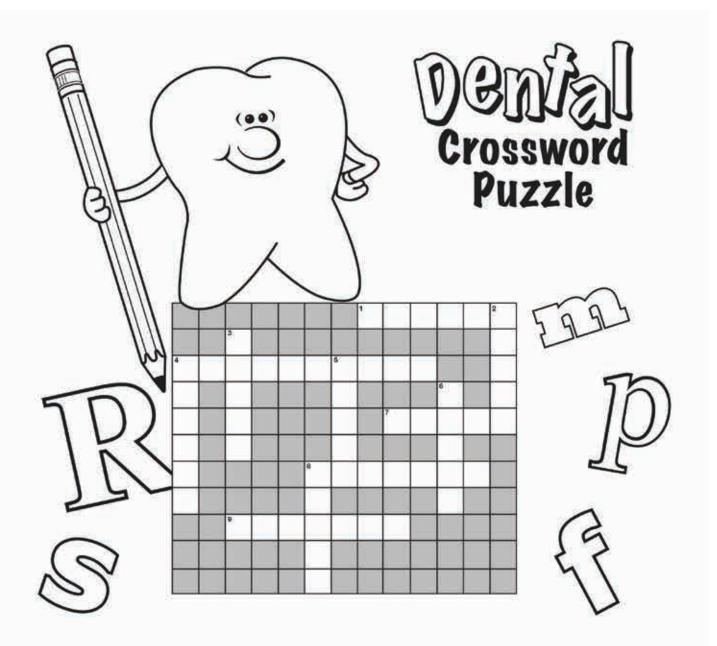




Can you find the 6 differences?







### Across

- 1. These help straighten teeth. (6)
- 4. Use this to help clean your teeth. (10)
- 7. This type of tooth is in the back of your mouth. (5)
- 8. This person helps keeps your smile healthy. (7)
- 9. You should have one every six months. (7)

### Down

- 2. Too much of this sweet stuff isn't good for your teeth. (5)
- 3. You open this up to show the dentist your teeth. (5)
- 4. After brushing your teeth, give this a brush too! (6)
- 5. After you brush your teeth, use water to do this. (5)
- This cleans between your teeth, where brushing can't get. (6)
- 8. If you don't look after your teeth, they will start to do this. (5)

### Answers:

Downs 2, sugar 3, mouth 4 tongue 5, times 6, hass 8 decay Across: 1, braces 4, toolithrush 7, moist 8, dantist 9, checkup

