

I WANT TO CUT BACK ON SUGAR: MISSION IMPOSSIBLE!

Sugar is not necessarily synonymous with tooth decay!

There are a number of factors at play:

- Quantity and concentration
- Frequency: on occasion or several times a day
- Consistency: liquid or sticky
- Composition: natural or added sugars
- Timing: with a meal or as a snack
- Sequence: before or after a protective food such as cheese or raw vegetables

Tooth decay is caused by a combination of factors that can vary from person to person. Other than diet and oral hygiene, these factors include:

- Enamel hardness and shape
- Bacteria in the saliva
- Time



Basics for everyone

I JUST FOUND OUT I'M GOING TO HAVE A BABY!

A baby's mouth, gums and teeth begin to form as of the second month in the womb. Mineralization starts in the fourth month in the womb and continues through to adolescence. A mother's nutritional deficiencies can cause the following conditions in her child:

- Enamel defects
- Poorly calcified and more cavity-prone enamel
- Tooth malformation
- Delayed eruption of teeth
- Malfunction of salivary glands

For your own benefit and that of your unborn child, make sure to eat a balanced diet that provides sufficient quantities of:

- protein
- calcium, phosphorous and vitamins C and D



Good Food, Great Smile!



I EAT "SUGAR-FREE" FOODS, DOES THAT MEAN I'M IN THE CLEAR?

Those kinds of foods typically contain substitutes known as artificial sweeteners, which give foods a sweet taste without changing the glycemic load and do not cause tooth decay.

They are nevertheless not recommended for pregnant women and, according to Health Canada, excessive intake can lead to side effects such as headaches or digestive upset.



I'M STILL GROWING!

Protein, vitamins and minerals are indispensable, and chewing is also very important:

- It stimulates the chewing muscles and helps keep the teeth properly aligned
- It activates the salivary glands (the saliva plays a role in cleansing and neutralizing acid in the mouth)



With more than 5,600 specialists in preventive oral healthcare, the **Ordre des hygiénistes dentaires du Québec** strives to improve the oral health of the population through partnerships with other healthcare professionals.

Everyone knows that sugar can cause tooth decay. For some time now, we've also been hearing talk of enamel erosion due to the acid in certain foods and drinks.

Yet, there are many other correlations between diet and oral health and most people still aren't aware of them!



"I'm pregnant, and since I don't have good teeth, I'm concerned my child will have the same problem as I do."

"I take very good care of my teeth and go for a cleaning every 6 months, but my gums bleed almost every day."



"I brush and floss my teeth and never eat sweets, but I get cavities every year!"



Diet can affect the quality of tooth enamel, gum health and the proper functioning of salivary glands and saliva.

I'M GOING THROUGH A ROUGH PATCH...

Stress and illness can inhibit the body's ability to regenerate, heal or fight infection.

Nutritional "fuel" (protein, fats and carbohydrates) is vital to recovery and vitamin-rich foods help speed up the process.



I'M NOT IN MY TWENTIES ANYMORE!

A person's dietary intake can be insufficient at times. This may be due to loss of appetite, poor nutrient absorption as a result of certain medications, dry mouth or difficulty chewing.

Tooth loss and poor oral health often lead people to consume a diet rich in carbohydrates and low in fruit, fibre and protein. This can lead to iron and vitamin deficiencies, higher morbidity and mortality rates and increased use of medication. It seems that maintaining at least 20 teeth is necessary for proper chewing and overall nutrition.

GUM DISEASE IS THE LEADING CAUSE OF TOOTH LOSS IN ADULTS, SO DIET MATTERS FOR THEM TOO!

Sugar feeds the bacteria found in biofilm (dental plaque) which, as soon as it calcifies, becomes tartar, one of the culprits behind inflammation of the gums and bone resorption.

Poor diet may not be the cause of gum disease but:

- it increases the speed and severity with which it progresses
- it worsens inflammation and slows the healing process



Let's focus on what has an impact on oral health!

Protein, fats and carbohydrates (all types of sugars) are all vital for the human body and its essential functions to work normally. They provide the "fuel" that keeps us going day after day. Vitamins and minerals are also important. Here are some examples.

Vitamins and minerals	How do these contribute to a healthy smile?	What are the main dietary sources?
Calcium	<ul style="list-style-type: none"> - Is an important component of our teeth and jaws - Enables wounds to heal 	<ul style="list-style-type: none"> - Milk and dairy products - Canned fish (with bones)
Iron	<ul style="list-style-type: none"> - Helps keep blood healthy and helps prevent inflammation 	<ul style="list-style-type: none"> - Meat, poultry and liver - Whole grains, legumes and green vegetables
Fluoride	<ul style="list-style-type: none"> - Stops bacterial activity and demineralization - Promotes remineralization of the enamel 	<ul style="list-style-type: none"> - Tea and fluoridated water <p>Our diets provide only trace amounts of fluoride</p>
Phosphorous	<ul style="list-style-type: none"> - Promotes healthy bones, gums and blood 	<ul style="list-style-type: none"> - Meat, poultry, fish, dairy products, eggs, nuts and grains - Legumes and cereal products
Vitamin A	<ul style="list-style-type: none"> - Promotes bone growth - Helps fight viruses and bacteria 	<ul style="list-style-type: none"> - Liver, eggs and dairy products - Leafy greens and orange vegetables - Orange fruits
B vitamins	<ul style="list-style-type: none"> - Support immune system functions - Help prevent minor lesions or pain in the lips, tongue, mucosa or palate (e.g. fissures, ulcers) and bad breath 	<ul style="list-style-type: none"> - Legumes and whole grains - Meat, poultry and fish - Milk, eggs, some vegetables and fruits
Vitamin C	<ul style="list-style-type: none"> - Helps wounds heal and helps prevent bleeding gums - Supports immune system functions and iron absorption - Helps prevent joint pain 	<ul style="list-style-type: none"> - Citrus fruits, berries and some vegetables
Vitamin D	<ul style="list-style-type: none"> - Promotes healthy bones and muscles and helps with calcium absorption 	<ul style="list-style-type: none"> - Fish and shiitake mushrooms - Enriched milk, yogurt, soy or rice drinks and juices

Your well-being matters to us!

1. FOR A HEALTHY SMILE, NO FOOD IS COMPLETELY OFF LIMITS, BUT...

What really counts is frequency. All it takes is choosing the right times and, of course, following the recommendations set out in the *Canada Food Guide*.

2. EAT A VARIETY OF FRESH PRODUCTS AND AVOID PROCESSED FOODS

The longer the list of ingredients, the more processed the food is or the more additives it may contain.

3. PIQUE YOUR CURIOSITY: START READING FOOD LABELS

The daily value column shows what percentage of the recommended daily value the food provides. For sugars, for example:

5% or less is not much
15% or more is a lot

4. GO NUTS FOR THESE 5 CAVITY-FIGHTING FOODS

They contain little to no sugar and the more calcium and phosphorous they contain, the better they are for preventing enamel erosion. What's more, milk protein (casein) may also help protect against tooth decay.

- Milk
- Yogurt
- Cheese
- Nuts and grains
- Popcorn

5. CHEW ON FIBROUS FOODS

Fresh fruits and vegetables don't clean the teeth per se, but chewing helps stimulate saliva flow.

6. AVOID STARCHES COOKED AT HIGH TEMPERATURES

Starches are complex carbohydrates that, when cooked (e.g. pasta, chips and granola bars), are easily converted into acid by the bacteria in the biofilm.

7. TAKE ADVANTAGE OF FREE INTERACTIVE TOOLS

The Internet is a gold mine for nutritional information, and many tools even offer an *iPhone* application. Check out:

- Health Canada
- Dietitians of Canada
- Dairynutrition.ca
- Extenso: *Université de Montréal's* nutritional information centre (in French only)