



Background: Why is Too Much Sugar an Issue? (Continued)

Dental Cavities

Sugar is one of the main causes of dental cavities.¹³ Other contributing factors are poor oral hygiene, lack of fluoride in drinking water and frequency of meals and snacks. However, the World Health Organization observed that in countries where the populations have a lower sugar intake, there is also a lower rate of cavities.¹³

Nutrition

When high sugar foods or drinks (pop, baked goods, candies and cereals with added sugar) are eaten instead of more nutritious foods, the body may not get enough vitamins, minerals and other important nutrients.¹⁴ For example, if people choose sugar sweetened pop instead of milk, they may not get enough of calcium and vitamin D. High sugar food and drinks are often called “empty calories” because they are typically high in calories and low in nutrients.¹⁴

Behaviour

Despite popular belief, there is no evidence that sugar intake is linked to hyperactivity. This belief can be partly explained by the fact that many adults mistake a child’s excitement surrounding, rather than to the event itself.¹⁴ Current evidence does not find that sugar affects behaviour or cognitive performance.¹⁴

Additionally, when high sugar foods are limited in a child’s diet they are usually replaced with healthier food choices. This results in improved nutrition overall which has a positive effect on behaviour.¹⁴

Background: Types of Sugar

Added Sugars and Naturally Occurring Sugars

Our **total sugar intake** includes sugar that is added during food processing (added sugar) and sugar that occurs naturally in food (naturally occurring sugar).¹⁴ Both added sugars and naturally occurring sugars have the same amount of calories. When consumed in large amounts, sugar may lead to weight gain and other health problems. Additionally, many foods containing added sugars usually offer little or no vitamins and minerals. Consuming a diet with large amounts of added sugars are associated with lower vitamin and mineral intakes and are therefore more likely to have a negative impact on health.^{6,14}

Naturally Occurring Sugars: include sugars that occur naturally in a variety of food or drinks found in *Eating Well with Canada's Food Guide*. For example, lactose is a natural sugar in milk, while fructose is a natural sugar in fruit.¹⁴ Although some foods and drinks contain natural sugar, like fruit and milk, they are also full of nutrients. They are recommended as part of healthy eating and can contribute to good health.

Added Sugars: are defined as all sugars and syrups that are added to foods during processing and preparation.¹⁴ Typical foods and drinks that are a major source of added sugars include:

- sugar sweetened soft drinks (pop);
- fruit drinks;
- candies and chocolates;
- cakes;
- cookies and other baked items;
- sweetened breakfast cereals.

Types of Added Sugar:

There are many sources of added sugars. Below are a few examples:

- Table sugar (sucrose) comes from raw sugar cane or the sugar beet plant. Sucrose is produced naturally in plants.¹⁴
- High-fructose corn syrup has the same chemical components as sugar (sucrose). Some people have raised concerns about high-fructose corn syrup. However, there is lack of evidence that high-fructose corn syrup is less healthy than other types of added sugars.¹⁵
- Glucose is a simple sugar that is found in table sugar (sucrose).
- Dextrose is a simple sugar found in honey.
- Fructose is a simple sugar that is naturally found in fruit.
- Molasses is a sugar by-product of processing sugar cane or sugar beet plants.
- Honey is a type of sugar that is made from bees using the nectar from flowers.
- Syrup – there are a variety of syrups used in food or drink production. Some syrups are made from the sugars above and others are made from plants such as maple or agave.

Remember to judge a drink or food by the nutrients it offers rather than simply the sugar content.

Background: Average Added Sugar Intake of Canadians

Many health research organizations have started to develop guidelines on the recommended intake of added sugar. There is strong agreement to limit overall sugar intake.^{6,10,17,18} Please see the following page for the suggested maximum intake of added sugar outlined by the World Health Organization.

The Canadian Sugar Institute estimates that Canadians currently consume approximately 13% of total energy intake from added sugars.¹⁶ This means the estimated intake of sugar in teaspoons per day for Canadians is:

Table 3: Estimated Added Sugar Intake in Canada

Age in years	Daily amount in teaspoons
4 – 8	10.5
9 – 13	13.5
14 – 18	17.0

Calculations based on energy intakes from *Eating Well with Canada's Food Guide*,¹⁷ with the average added sugar being 13% of total energy intake.¹⁸

To put the above amounts into perspective, an average can of sugar sweetened pop (355 mL) contains 10 teaspoons (50 mL) of added sugar.

What Are the Main Food or Drink Sources of Added Sugar?

Information on the main sources of added sugar in Canadian diets is limited. Food consumption surveys in the United States revealed sugar sweetened soft drinks (pop) were the leading source of added sugars (32%), followed by fruit flavoured drinks (15%), sweetened grain products (11%), sweetened dairy products (8%), and candy (7%).¹⁸ Combined, these foods and drinks accounted for 73% of added sugars intake in the United States.¹⁷



Background: What is the Suggested Maximum Intake of Added Sugar?

The World Health Organization recommends that people have no more than 10% of their total energy (calorie) intake from added sugars.^{19,20} As noted previously, “added sugars” are defined as all sugars and syrups that are added to food and drinks during processing and preparation. The Dietary Reference Intakes (DRI) report notes that individuals who consume more than 25% of their energy from added sugar have decreased intake of vitamins and minerals.⁶ More studies are needed to know how much added sugar or total sugar increases risk for specific diseases.⁶

Table 4: Recommended Maximum Intake of Added Sugar Suggested by the World Health Organization

Age in years	Daily amount in teaspoons
4 – 8	8
9 – 13	10.5
14 – 18	13

Calculations based energy intakes from *Eating Well with Canada’s Food Guide*,¹⁷ with the maximum added sugar being 10% of total calories.^{19,20}

Added sugar intake should be minimized. Many drinks with added sugar have low or no nutritional value²¹. Although sugar in fruit juice is naturally occurring, it is still recommended to limit fruit juice to a ½ cup (125 mL) serving per day²¹. Instead, encourage consumption of whole fruits and vegetables, as they contain fibre and are more satisfying.



Background: Healthy Drink Choices and Fluid Requirements

Water—Why is it Important?

Water makes up 60 – 70% of the body’s weight and it is important for many functions in the body. It helps to:²²

- carry nutrients;
- remove waste;
- cool the body (sweat);
- digest food;
- help with the repair and replacement of old tissue;
- act as a cushion for organs and joints.

Water is lost through our skin, lungs, kidneys and digestive system every day. In order for our body to function properly, we need to get water from fluids and the food we eat.²²

What Food and Drinks Provide Water?

We get about 20% of our water needs from food. Watermelon, oranges, grapes, cucumbers, tomatoes and peppers are some of the foods that have a higher water content.²² Drinks provide about 80% of the water for the body.²² Healthy drinks include water, milk and 100% juice (no more than ½ cup (125 mL) per day).²¹ For young athletes, water is the best drink choice for most activities.²³ Sports drinks are high in sugar and low in nutrients; they are only needed if a person is participating in endurance activities lasting over 60 minutes.²⁴ Caffeinated drinks such as cola and tea can also count towards total fluid intake²² however consuming large amounts of caffeine may also lead to other health problems (see *Background: Caffeinated Drinks and Energy Drinks* on Page 21).

Fluid Requirements

Fluid needs depend on someone’s age, gender, body size, and activity level.²² Under room temperature and a normal amount of physical activity, the daily recommended fluid amounts are:

Table 5: Recommended Fluid From Drinks Per Day Including Water ²²

Age in years	Approximate Fluid from all Drinks Per Day	
	cups	mL
1 – 3	about 4	900
4 – 8	about 5	1200
9 – 13	about 6 – 7	1600 – 1800
14 – 18	about 7 – 10	1800 – 2600




Fluid needs increase in hot climates, dry weather or with increases in physical activity. Thirst is not always a good indicator in guiding the body to drink adequate fluids.²²

Background: Healthy Drink Choices and Fluid Requirements

What are Healthy Drinks?

The *Alberta Nutrition Guidelines for Children and Youth* uses a food rating system as a simple way to separate healthy food and drinks from less healthy food and drinks.²¹ The food rating system includes three categories: *Choose Most Often*, *Choose Sometimes* and *Choose Least Often*. The familiar symbols “Go, Yield and Stop” are used to identify the three categories.²¹ The *Alberta Nutrition Guidelines for Children and Youth* were developed to complement Health Canada’s recommendations in *Eating Well with Canada’s Food Guide*.

Table 6: Go, Yield, Stop Drinks

Drinks	Examples	Comments
Choose Most Often 	Milk (skim, 1% or 2% milk)	These are healthy to choose every day. These drinks are all recommended as healthy choices in <i>Eating Well with Canada’s Food Guide</i> . Note: <i>Canada’s Food Guide</i> recommends having vegetables and fruit more often than juice. The <i>Alberta Nutrition Guidelines for Children and Youth</i> recommends no more than ½ cup (125 mL) juice per day. ²¹
	Fortified soy beverage	
	Plain water	
Choose Sometimes 	Flavoured milks (chocolate, strawberry, banana and vanilla)	These are healthy drinks that may have added sugar and fat.
	Flavoured fortified soy beverage	
Choose Least Often 	Sugar sweetened pop	These are drinks that are low in nutrients and high in sugar and/or fat and may contain sugar substitutes.
	Sweetened iced tea	
	Ice slush	
	Iced coffee slush	
	Sports drink	
	Fruit flavoured drink	
	Vitamin enhanced water	
Candy bar milkshake		

Note: Energy Drinks are not recommended for children and youth and should be avoided.