

UNCOVER THE TRUTH ABOUT SUGAR: **CONSUMPTION**

Myth: Canadians are eating more and more sugar

TRUTH:
On average, Canadians consume 11% of energy from added sugars, and consumption has been declining

Three Facts about Added Sugars Consumption in Canada:

1. While many headlines suggest that Canadian intakes of added sugars are increasing, trends in availability of added sugars suggest that consumption in Canada has been declining over the past two decades [1].

Consumption of added sugars in Canada has been declining over the past two decades

2. In 2004, Canadian consumption of added sugars was about 11% of daily energy intake (53 g or 13 tsp per day), according to an analysis of dietary intake data from the Canadian Community Health Survey (CCHS) [1]. Average intake ranged from 9.9% of energy in adults aged 19 years and above to 14.1% of energy in adolescents aged 9-18 years; however, averages do not account for the variation in intakes between individuals.
3. Added sugars consumption in Canada is about 1/3 less than US consumption when comparing dietary survey data from a similar time frame [1]. Much of this difference can be explained by the fact that Canadian consumption of soft drinks is about half that of the US.

Did You Know?

- Declining trends in added sugars consumption have also been seen in countries such as Australia [2].
- “Added sugars” includes all sugars added to foods at home and by food manufacturers (e.g. table sugar, honey, maple syrup) and sugars in beverages (e.g. high fructose corn syrup).
- When available, sugars data from CCHS 2015 will provide an estimate of dietary changes since 2004.
- On average, added sugars account for approximately half of total sugars consumed.

Estimated Added Sugars Consumption in Canada



References:

1. Brisbois TD, Marsden SL, Anderson GH, Sievenpiper JL. Estimated intakes and sources of total and added sugars in the Canadian diet. *Nutrients*. 2014; 6(5):1899-912.
2. Brand-Miller J.C. & Barclay A.W. Declining consumption of added sugars and sugar-sweetened beverages in Australia: a challenge for obesity prevention. *Am J Clin Nutr* 2017 doi:10.3945/ajcn.116.145318
3. Data source: Statistics Canada. CANSIM. Adjusted for waste using updated USDA Loss-Adjusted Food Availability ([http://www.ers.usda.gov/data-products/food-availability-\(per-capita\)-data-system/](http://www.ers.usda.gov/data-products/food-availability-(per-capita)-data-system/) aspx#26705). Includes refined sugar, maple sugar, honey and sugars in soft drinks. Note: Variability in sugars and syrups reflects substitution with high fructose corn syrup in soft drinks so total sugars, syrups and soft drinks is an overestimate in some years. Sugars in soft drinks is an overestimate as soft drink data includes non-caloric soft drinks.

UNCOVER THE TRUTH ABOUT SUGAR: **OBESITY**

Myth: Sugar makes you fat and is the leading cause of obesity

TRUTH:
Sugar does not cause obesity; too many calories from all foods, including sugars, can lead to weight gain



Three Facts about Weight Gain and Obesity:

1. Obesity is complex. There are many different risk factors for obesity, including your dietary patterns, level of physical activity, gut (microflora) health, environmental factors, sleep patterns, stress, and genetics.
2. You're at increased risk of gaining weight when the energy (Calories) you ingest from food is greater than the energy you use to perform normal bodily functions like breathing, digestion, pumping blood, reading, daily movement, and physical activity.
3. Research suggests eating too many calories from all sources - sugars, starches, fats, proteins, alcohol - can contribute to weight gain as the excess calories are instead stored as fat [4].

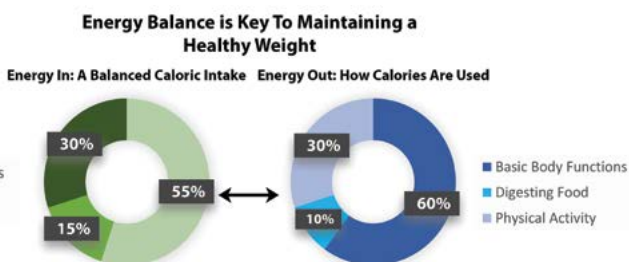
Sugar (sucrose) is a type of carbohydrate. Other carbohydrates include starches, fibres and other sugars.

All sugars provide 4 Calories of energy per gram, which is the same as all starches and proteins.

Fat provides 9 Calories of energy per gram; alcohol provides 7 Calories per gram; and fibre, 2 Calories per gram.

Key Pillars to a Healthy Weight:

- Trying to lose weight? Reduce the total Calories you eat and drink from all parts of your diet by choosing a variety of nutrient-dense foods from the four food groups and moderating portion sizes.
- Getting enough sleep and incorporating physical activity into your daily routine can also help maintain a healthy weight.
- A healthy eating pattern is one that has the right amount of Calories from a balanced ratio of carbohydrates, fats, and proteins, as well as enough of the essential vitamins, minerals, fibre and other nutrients our bodies need.



Reference:
4. Te Morenga L et al. Dietary sugars and body weight: systematic review and meta-analyses of randomised controlled trials and cohort studies. BMJ.2012;346:e7492

UNCOVER THE TRUTH ABOUT SUGAR: **SOURCES OF SUCROSE**

Myth: Our bodies use added sugars differently than other sources of sugars



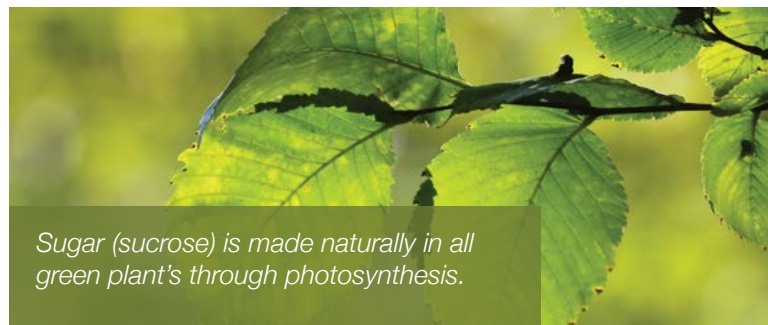
TRUTH:
Added and naturally
occurring sucrose is used in
the same way by the body,
as a source of energy

Added Sugars vs. Naturally Occurring Sugars:

- Glucose, fructose, and sucrose are made naturally in all green plants through photosynthesis, a process that converts energy from sunlight into food energy in the form of sugars and starches.
- Sucrose is found in your home's table sugar and can be added to foods. This is the same sucrose that is found naturally in fruits and vegetables, along with the other simple sugars, glucose and fructose.
- Fruits and vegetables also come packed with many important nutrients (e.g. vitamins, minerals, fibre) that our bodies need and benefit from.
- A small amount of sugar can improve the flavour of many nutritious foods like whole grains, breakfast cereals, and flavoured yogurts.
- Whether it is naturally occurring (from fruits or vegetables) or added to foods, our bodies use sucrose as a carbohydrate energy source for the body. Any excess carbohydrate or sugars consumed is stored for future use as glycogen or fat.

Key Facts about Sugar (Sucrose):

- The sucrose found in your home's table sugar and added to foods comes from one of two natural sources – sugar cane or sugar beets.
- Sucrose added to foods could be extracted from fruits such as bananas and mangos. However, sugar cane and sugar beets are the most economical source because of their high sucrose concentrations.
- Most sugar in Canada is purified at refineries from raw cane sugar, which is not safe to consume. This process removes impurities from the raw sugar, to reveal naturally white sucrose crystals. Nothing is added to the natural sucrose.
- Canadian regulations require that, whether purified from sugar cane or sugar beet, the resulting granulated sugar is at least 99.8% pure sucrose.



Sugar (sucrose) is made naturally in all green plant's through photosynthesis.

UNCOVER THE TRUTH ABOUT SUGAR: **CHRONIC DISEASE**

Myth: Sugar causes chronic diseases such as diabetes and heart disease

TRUTH:
Excess Calories from all foods and beverages, including sugars, increase risk of obesity, a risk factor for other chronic diseases



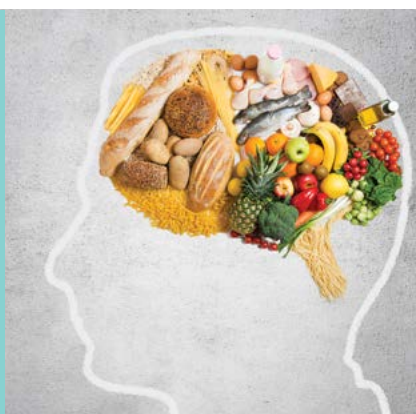
Reducing Your Risk for Chronic Diseases:

- Consuming excess Calories from all sources, including sugars, fats, other carbohydrates, protein, and alcohol, can increase your risk of obesity, a risk factor for chronic diseases such as cardiovascular disease, diabetes and several types of cancer [5]. Your level of daily physical activity along with a number of other lifestyle and genetic factors also influence your risk for obesity.
- Foods and beverages higher in sugars and fats can be key sources of excess calories. Individuals who want to reduce total calories would benefit from reducing the frequency of intake or portions of these foods, and increasing consumption of nutrient-dense whole foods like fruits and vegetables.
- Eating a healthy diet, maintaining a healthy weight, and managing blood pressure can help reduce the risk of developing cardiovascular disease and diabetes [6].
- More high-quality research is needed to determine whether sugar contributes to chronic disease beyond its contribution to Calories.

How the Body Uses Sugars for Energy:

- All carbohydrates (sugars and starches) are eventually converted by the body to glucose, the body's main energy source.
- Organs like the brain and red blood cells rely primarily on glucose to function.
- Glucose is also the preferred energy supply to support intensive physical activity.
- If you eat excess Calories from sugars and starches, your body stores the extra energy as glycogen or fat for use at a later time. Excess Calories from fat and protein can also be stored as fat in the body.

The body has several mechanisms to ensure an adequate and constant glucose supply to the brain to support mental work



References:

5. Institute of Medicine. Dietary Reference Intake for energy, carbohydrates, fiber, fat, protein and amino acids. National Academic Press. Washington. 2005.
6. Public Health Agency of Canada. Healthy living can prevent disease. http://www.phac-aspc.gc.ca/cd-mc/healthy_living-vie_saine-eng.php

UNCOVER THE TRUTH ABOUT SUGAR: **FUNCTIONAL ROLES**

Myth: Sugar is hidden in foods and provides empty Calories



TRUTH:
Sugar plays many roles
in foods, beyond just
sweetness and Calories

Six Roles Sugar Plays in Foods:

- **Helps to balance flavour:** A little bit of sugar balances the acidity of tomato- and vinegar-based products, such as dressings and sauces.
- **Helps improve taste of high-fibre foods:** A small amount of sugar can improve the flavour of high fibre sources, such as bran cereals and plain oatmeal.
- **Helps add colour to baked goods:** When heated, sugar caramelizes, browning the surface of cakes, breads and cookies while giving off a lovely aroma.
- **Helps create texture and mouthfeel:** Sugar helps provide the soft structure in baked goods and the smoothness in frozen dairy products.
- **Helps naturally preserve jams:** Sugar absorbs extra moisture to prevent bacteria from growing in jams and preserves.
- **Helps bread rise:** Sugar feeds yeasts in fermented foods, which is an essential step in making bread and other baked goods.



Sugar helps balance the flavour of tomato-based sauces.

Some functions are unique to granulated sugar while others can be achieved with other sweeteners. This can make it difficult to reduce or remove the amount of sugar in certain recipes, such as baked goods. If trying to reduce the amount of sugar in a recipe, it is best to experiment by reducing the amount used by small increments and see if the taste, texture, and colour remain to your preference.

Finding Information on Sugars Content of Foods and Beverages:

- The Nutrition Facts table lists “Sugars” as part of Carbohydrate (which includes sugars, starches, fibre).
- “Sugars” refers to all naturally occurring sugars (such as in milk products, fruits and vegetables) as well as sugars added to foods (e.g. table sugar, honey, maple syrup) and sugars in beverages (e.g. high fructose corn syrup, the main sweetener in soft drinks).
- The ingredient list tells you what ingredients are in a food or beverage. They are listed by weight, from most to least. Examples of ingredients you may see that refer to different types of sugars include:

Sugars listed in the ingredient list	Source of sugar
Sucrose, sugar, liquid sugar, invert sugar, brown sugar, icing sugar, golden syrup, turbinado sugar, molasses	Sugar cane or sugar beets
Glucose-fructose (high fructose corn syrup), dextrose, glucose, corn syrup solids, high maltose corn syrup	Corn starch
Agave syrup, coconut sugar, fruit juice concentrate, honey, maple syrup, rice syrup, sorghum syrup	Other

Nutrition Facts			
Per ½ cup (125 mL)			
Amount		% Daily Value	
Calories 90			
Fat 4.5 g		7 %	
Saturated 2.5 g + Trans 0 g		13 %	
Cholesterol 0 mg			
Sodium 280 mg		12 %	
Carbohydrate 12 g		4 %	
Fibre 1 g		4 %	
Sugars 0 g			
Protein 3 g			
Vitamin A	0 %	Vitamin C	0 %
Calcium	2 %	Iron	8 %