

## SUGAR AND HEALTH - KEY FACTS

### *Consumption*

**Added sugars consumption in Canada is moderate and estimated to be about 10.5% of total calories.**

- This is well below [Canada-US dietary reference intakes](#) (DRIs) which suggest a *maximum* of 25% of energy intake from added sugars
- The media often reports TOTAL sugars which includes both naturally occurring sugars (in milk, fruits, fruit juice, vegetables and legumes) as well as the sugars added to foods.
- Added sugars represent *about half* of total sugars ([Further Analysis of StatCan Health Report, 2011](#))

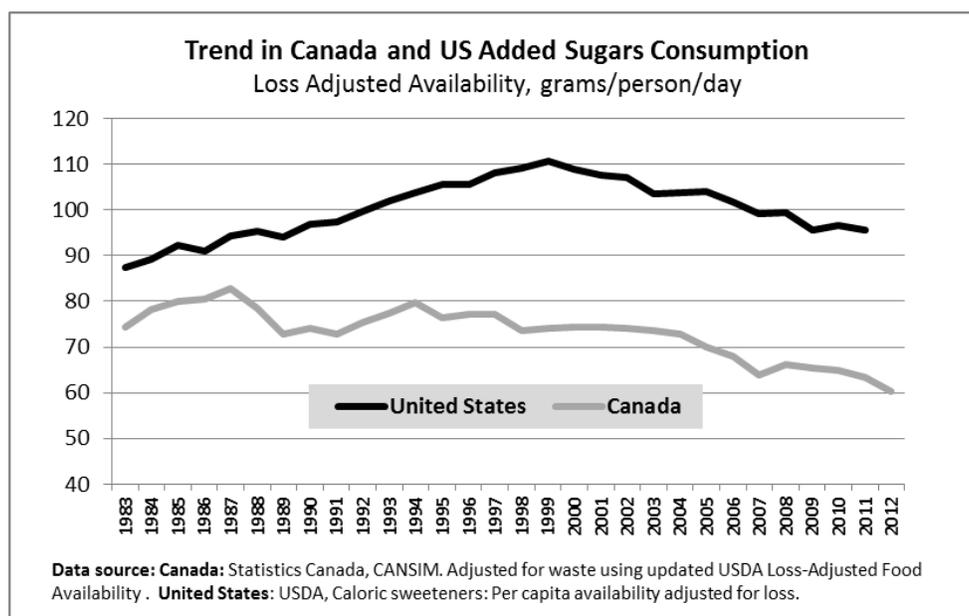
**Consumption of added sugars (i.e. sugar, HFCS and other corn sweeteners) has been declining over the past 15 years in Canada, mainly reflecting the decline in caloric soft drink consumption.**

- Soft drink consumption in Canada has declined approximately 30% since 1998 (Statistics Canada, CANSIM Table 002-0011)

**US consumption statistics are misleading because Canadian consumption of added sugars is much lower.**

- The media and most scientific papers report US consumption patterns but this does not accurately reflect Canadian intakes
- Added sugars intakes in Canada are well below US levels (about one third less) – see table
- Lower consumption of added sugars in Canada largely reflects much higher soft drink consumption in the US which is double that of Canadian consumption ([Statistics Canada Health Reports](#))

<b>Comparison of Canadian and US Consumption</b>	<b>Canada</b>	<b>US</b>
Population Average per person per day	(CCHS 2004)	(NHanes 2003-04)
Total Calories	2073 Calories	2195 Calories
Total sugars (grams) – natural and added	110 g	133 g
Added sugars (grams)	55 g	88 g
Added sugars (Calories)	220 Calories	352 Calories
Added sugars (tsp)	13 tsp	21 tsp
Added sugars (% Calories)	10.7%	15.9%



## ***Overall Health and Disease***

**A number of major Expert Committees, such as the World Health Organization, Food and Agriculture Organization, European Food Safety Authority, and the Institute of Medicine have all concluded that there is no evidence of harm attributed to current sugar consumption levels.**

- The totality of the scientific evidence concludes that sugar does not have a negative influence on behaviour, cancer, risk of obesity, diabetes or heart disease.
- Canadian sugar intakes are well below the Institute of Medicine suggested maximum intake of 25% of energy.
- The suggested 25% maximum from added sugars was recommended because of the potential risk of inadequate nutrient intakes in some people, not because of other adverse health effects.

**Research shows that the amount of sugar in the diet does not predict how healthy a diet is.**

- The Institute of Medicine report that forms the basis of Canada's nutrition advice concluded that the scientific evidence in relation to dental caries, behaviour, cancer, risk of obesity and heart disease does not support setting an upper limit for added sugars ([Dietary Reference Intakes for Sugars](#))
- This means that the scientific evidence did not find adverse health effects at the upper range of usual sugar intakes in the general population.

**It is only when added sugars intakes are abnormally high (above 25%) or low (below 5%) that there may be the risk of inadequate intakes of some nutrients in some people.**

- This is why the experts *suggested* a maximum intake of 25% of added sugars.
- Usual added sugar intakes among Canadians are well below this level, in the range of 9-14% of total energy depending on the age group. ([Further Analysis of StatCan Health Report, 2011](#))

**Sugar (sucrose) is a natural product of photosynthesis and has been a part of the human diet for centuries.**

- The sugar added to foods is the same sugar (sucrose) found naturally in all fruits and vegetables.

**Studies showing adverse health effects from fructose at excessive doses in animal experiments cannot be extrapolated to the usual human consumption of fructose and other sugars.**

- Human consumption of fructose and fructose-containing sugars is well below the extreme levels used to test for "toxicity" in animals.
- Fructose occurs naturally in fruits and vegetables and is a part of many healthy foods in the diet.

## ***Obesity***

**No one factor, including sugar, is responsible for the rise in obesity rates.**

- Obesity is a serious and complex issue which involves several factors, including genetic, environmental, lifestyle and economic factors.
- There is nothing unique about sugar calories which contribute 4 calories per gram, the same as all carbohydrates.
- Scientific evidence shows that it is higher calorie intake (and lower physical activity) that increases the risk of obesity, not the specific composition of the diet. ([Diet composition and obesity](#))
- Managing weight depends on managing total calorie intake and calorie output.
- Overall trends show that sugar consumption has been declining while obesity rates have increased. ([Estimated Intakes of Added Sugars and Body Weight Trends](#))

## ***Diabetes***

### **Sugar does not cause diabetes.**

- People with diabetes have high blood glucose, also called high blood sugar, but this is a symptom, not a cause of diabetes.
- There are a number of risk factors that can lead to type II diabetes including being overweight, which results from an imbalance between total Calorie intake and Calories used through physical activity.

### **People with diabetes can consume sugar in moderation as part of a balanced diet.**

- The [Canadian Diabetes Association](#) does not recommend the avoidance of sugar (sucrose) - up to 10% of total daily calories from added sugar is acceptable, which is close to the population average intake.
- Achieving a healthy body weight through a balanced diet based on Canada's Food Guide and regular physical activity is recommended for people with diabetes, not eliminating sugar or other specific foods.

## ***Natural***

### **The sugar added to foods is pure sucrose, the same sucrose that is found naturally in all fruits and vegetables.**

- The sugar found naturally in sugar cane and sugar beets is not altered in any way during the purification process.
- The refining process separates sugar (sucrose) from the plant material and other impurities to produce naturally white sugar crystals without any additives or preservatives

### **Added sugars and naturally occurring sugars are the same to the body.**

- All sugars are carbohydrates and are the body's main source of energy.

## ***Functional properties***

### **Sugar plays an important role in many sensory and food safety aspects of food.**

- Sugar contributes to the texture, flavour, and appearance of foods, acts as a natural preservative, enables the fermentation process to occur, and exhibits antioxidant functions. ([Functional Properties](#))

**Sugar makes healthy foods more palatable**, such as flavoured yogurt, chocolate milk, and whole grain cereals. These foods contain several nutrients that our bodies need.

- Research shows that adding sugars to otherwise healthy foods, such as flavoured milk and yogurt and sweetened cereals, improves the quality of children's and adolescents' diets.

## ***Scientific Evidence***

### **Dietary advice is based on the totality of evidence, not on any one scientific paper or opinion.**

- Many individual studies may provide interesting observations about dietary patterns but are inadequate to set dietary goals for the population.

### **In Canada, dietary advice is based on the Dietary Reference Intakes (DRIs) which form the basis of advice in Canada's Food Guide.**

- The DRIs are a set of scientifically based nutrient reference values for healthy people and were established by expert panels of Canadian and American scientists. The review process was overseen by the Institute of Medicine which is part of the National Academy of Sciences, a non-profit society of distinguished scholars with a mandate to advise on scientific and technical matters.

## ***Other Issues***

Addiction/Cravings: Although the sweet taste of sugar is pleasurable, studies do not support a specific role for sugar in increasing food cravings and sugar does not cause a physical dependence characteristic of addictive substances.

Hyperactivity: Several comprehensive scientific reviews concluded no evidence exists to link sugar intake to hyperactivity in normal children or those with Attention Deficit Hyperactivity Disorder (ADHD).

Blood sugar: In normal healthy people, blood sugar rises following a meal and then falls, but not to levels that would be considered hypoglycaemic – meaning a “crash”. Consuming sugar does not result in abnormal blood sugar levels.

Tooth decay: Proper oral hygiene and adequate fluoride use are the most effective methods of preventing tooth decay. The formation of dental caries depends on the frequency and the duration that carbohydrate is in contact with teeth, not the total amount of sugars and starches ingested.