



# 25 Ways Sugar Is Making You Sick

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PHOTOGRAPH BY LIAM MOGAN



## 1 It hurts your heart

Researchers at Harvard University studied thousands of American adults over the course of 15 years and found those who consumed 25 per cent or more of their daily calories from sugar were, in that time, **more than twice as likely to die from heart disease** as those whose diets included less than 10 per cent of added sugar a day. (The worst offenders? Sweetened beverages, grain-based treats, fruit drinks and dairy desserts.)

## 2 “No sugar added” doesn’t mean “healthy”

If the label says “100 per cent juice,” don’t chug with abandon. Even if the drink has no added sweeteners, **its naturally occurring sugars are far more concentrated than you’d find in a piece of fruit**. And unlike an orange or apple, which are high in fibre, juice offers empty calories and is of minimal nutritional value.

## 3 Excess sugar is linked to dementia

In February, researchers at the University of Bath found **a molecular link between sugary diets and early Alzheimer’s**. The scientists discovered that glycation—a reaction through which glucose affects cells—causes damage to an important enzyme that’s involved in the reduction of abnormal protein buildup in the brain, which is characteristic of the disease.

## 4 Sugar won’t make kids hyper; it’s worse than that

A meta-analysis in the *Journal of the American Medical Association* found that sugar does not affect children’s behaviour. “It may simply be the environment where certain food is being served (i.e., parties) that causes children to be more excitable,” says Andrea D’Ambrosio, a registered dietitian in Kitchener-Waterloo, Ont. But **it does spike blood pressure and cholesterol**.

One 2016 study in the journal *Obesity* showed that reducing young subjects’ sugar consumption for just nine days led to immediate improvements in those areas, as well as blood sugar levels.



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## 5 STEALTH SUGAR STOWS AWAY IN SNACKS

These five convenience foods may appear to be healthier choices, but they often contain startlingly large amounts of the sweet stuff. Consider homemade alternatives instead.

### SMOOTHIES

On average, a medium (473-millilitre) store-bought smoothie contains between 30 and 80 grams of sugar.

### OATMEAL

Flavoured oatmeal packets may seem like a healthy strategy for busy mornings, but they can contain as many as 12 grams of sugar per serving. (Heaping on another tablespoon of brown sugar adds an extra 12 grams.)

### TRAIL MIX

Conventional wisdom suggests stashing trail mix in your car for a healthy snack on the go, but a quarter cup of a commercial variety can contain 16 or more grams of sugar.

### YOGURT

A 118-millilitre serving of fruit-flavoured yogurt can contain 13 grams of sugar. If you top it with a quarter cup of store-bought granola, you're downing another six grams.

### SALAD DRESSING

Grabbing a salad for lunch may seem like a savvy dietary choice, but it's important to know that some bottled dressings, such as French and raspberry vinaigrette, often have four or more grams of sugar per two-tablespoon serving.



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# 20 BAGS

Equivalent to **the amount of added sugar the average Canadian eats in a year**—without realizing it. The Heart and Stroke Foundation recommends that sugar comprise only 10 per cent of an adult's daily calories, which means each of us should be consuming only 48 grams—slightly more than a bag of Skittles—of added sugar per day, rather than the 100 grams we currently ingest.

## 7 Experts fear sugar will kill you sooner

**Laura A. Schmidt**, a professor at the University of California San Francisco School of Medicine, worries about all the damage sugar is doing to our bodies. That's why she became lead investigator for UCSF's Sugar-Science research site, developed as an "authoritative source for the scientific evidence about sugar and its impact on health." Here, she explains some of her concerns.

*With all the negative health news about sugar, should we switch to something else?*

The evidence is mounting against sucralose, saccharine and aspartame. Some research shows artificial sweeteners damage the microbiome in the gut. They're also

associated with weight gain and glucose intolerance, the two things people use them to prevent. Based on what we know, I wouldn't consume those products—or give them to my kids.

*How do you keep added sugar from seeping into your own diet?*

I just don't have it around the house. Take all that stuff out of your environment. Once you start cutting back, you'll lose your sweet tooth.

It's a palate phenomenon, and it doesn't take long.

You'll notice that you can suddenly taste the natural sweetness in unprocessed food, and you'll start to find processed products cloying and unpleasant.



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## 8 Sugar is as bad for your liver as alcohol

Unlike other forms of sugar, fructose, which occurs naturally in fruit, is processed in the liver. We're consuming too much of it, thanks to our penchant for foods with added sweeteners, and it's **leading to a rise in non-alcoholic fatty liver disease** (NAFLD). One visible red flag: a sugar belly (yes, like a beer belly). Why? The liver breaks down excess fructose into fat globules that travel through the bloodstream and lodge around your midsection and internal organs. And, like the liver damage caused by alcohol, NAFLD causes inflammation and scarring. "It is one of the leading causes of liver transplants," Schmidt says.

## 9 "Healthier" sweeteners are no better for you

Those trying to cut down on sugar may be drawn to studies that tout the healing power of honey or the antioxidant benefits of maple syrup. Ignore them, says

D'Ambrosio. "All sugar provides energy in the form of calories but it doesn't add a significant amount of other nutrients," she says. "**Sugar is sugar**, so it's best used in moderation no matter what form it takes."



Still sugar

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# 172 GRAMS

The **amount of total sugar consumed by the average Canadian teenage boy each day**, based on information from the Canadian Community Health Survey. (The leading culprit among kids aged 9 to 18? The added sugars in pop.) Excess sugar is linked to weight gain, Type 2 diabetes, cavities and high cholesterol in children, while obesity rates for young people have nearly tripled in the last 30 years, according to the Government of Canada.

## 11 Cancer cells are sugar fiends

New research from the University of Texas at Dallas **shows a link between sugar and squamous cell carcinoma**, which is hard to treat and accounts for a quarter of all lung cancers. The study also found that four other types of squamous cell cancer also consume a lot of sugar.





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4.6

The **number of additional years you age** if you drink a 591-millilitre sugary beverage every day. (The effect is comparable to that of being a regular smoker.)

### 13 Sugar may keep us up at night

A 2016 study in the *Journal of Clinical Sleep Medicine* shows eating more sugar (along with less fibre and more saturated fat) is associated with **lighter, more disrupted and less restorative sleep**.

### 14 We're still drinking too much liquid sugar

Good news: we're drinking less pop than we were a decade ago. Bad news: we've replaced it with options that may be just as unhealthy, says Amanda Nash, a dietitian with the Heart and Stroke Foundation in Winnipeg. A 2017 report from the University of Waterloo found sales of energy drinks increased by 638 per cent in the last 12 years, while sales of specialty coffees increased by 579 per cent.

**Energy drinks contain 84 grams of sugar, sports drinks contain about 40 grams, and your average flavoured latte comes in at around 36 grams.**

### 15 Sugar messes with our cholesterol

A 2010 study of 8,495 Americans over 18 in the *Journal of the American Medical Association* found that **as subjects' added-sugar intake went up, their levels of HDL (good cholesterol) dropped**, increasing their risk for cardiovascular disease. The study also found that women in particular who ate more added sugar had higher levels of LDL density (bad cholesterol).

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# 66%

The **proportion of packaged foods that contain added sugars**, according to a *Canadian Medical Association Journal* study from 2016, which analyzed more than 40,000 items on the shelves of one of the nation's biggest retailers.

## 17 It's bad for your BMI

Researchers from the University of Reading, the University of Cambridge and Arizona State University studied the sugar intake of 1,700 men and women aged 39 to 77 in Norfolk, U.K. According to a study published in 2015, they found that **those who ate the most sugar were 54 per cent more likely to be overweight** (that is, have a BMI over 25)—and were also more likely to have underreported how much of the substance they consumed.

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## 18 Food labels can hide sugar content

At long last, revised nutrition labels for packaged foods are coming to a shelf near you. Look for them on everything from crackers to corn flakes by the end of this year.

### WHAT'S CHANGED

All sugars are grouped together.

There's a new % daily value (DV) for total sugars (5 per cent of your DV is a little, 15 per cent is significant).

Nutrition Facts Valeur nutritive	
Per 1 cup (250 mL) pour 1 tasse (250 mL)	
<b>Calories 110</b>	% Daily Value * % valeur quotidienne *
<b>Fat / Lipides</b> 0 g	0 %
Saturated / saturés 0 g	0 %
+ Trans / trans 0 g	
<b>Carbohydrate / Glucides</b> 26 g	0 %
Fibre / Fibres 0 g	22 %
Sugars / Sucres 22 g	
<b>Protein / Protéines</b> 2 g	
<b>Cholesterol / Cholestérol</b> 0 mg	0 %
<b>Sodium</b> 0 mg	10 %
Potassium 470 mg	2 %
Calcium 26 mg	0 %
Iron / Fer 0 mg	

\* 5% or less is a little, 15% or more is a lot  
\* 5% ou moins c'est peu, 15% ou plus c'est beaucoup

### WHAT'S MISSING

The label doesn't differentiate between added sugars and naturally occurring ones, so you'll need to dig around.

### HELPFUL TIP

4 grams of sugar = 1 teaspoon (A can of Coke contains 40 grams of sugar, which is equivalent to 10 teaspoons.)





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## BEWARE: YOU MAY BE EATING INCOGNITO SUGAR

Here are **10 sneaky pseudonyms** manufacturers use to fool you into thinking their food isn't packed with the sweet stuff:

- Amazake
- Carob powder
- Corn syrup
- Dextrose
- Evaporated cane juice
- Fructose
- Fruit juice concentrate
- High-fructose corn syrup
- Honey
- Maltose

## 20 Sugar takes your breath away

Scientists have long suspected a link between sugar-sweetened beverages and asthma. After analyzing data from 146,990 adults in the U.S., they found that, sure enough, **adults who downed at least two of these drinks a day were more likely to have respiratory issues.**

## 21 Sweets are worse than salt for hypertension

Normal blood pressure falls between 90/60 and 120/80. According to a study published in the *Journal of the American Society of Nephrology* in 2010, **a high-fructose diet can push your blood pressure over the threshold of 120/80**, which is considered the upper end of normal. In a 2014 research review published in the *BMJ Open Heart* journal, medical experts argued that sugar intake may have the most dramatic effect on modulating blood pressure—and, in fact, could be more detrimental to heart health than sodium consumption.



## 22 Sugar can make you sad

Ending a bad day with a bowl of Ben & Jerry's may make you feel worse in the long run. In 2015, Columbia University Medical Center researchers found **post-menopausal women with diets high in added sugars and refined grains were at an increased risk of new-onset depression**, while the risk decreased in subjects who ate more dietary fibre, whole grains, vegetables and unprocessed fruits.



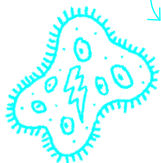
## 23 Sweet treats ruin your teeth...

Your childhood dentist was right—sugar causes cavities.

1. You sip a sweet coffee shop beverage.



2. Bacteria in your mouth thrive on sugar, which provides them with energy.



3. Those microorganisms multiply, creating a film of plaque on the surface of your teeth.



4. The plaque produces an acid that dissolves the minerals that make up the hard surface of your teeth.



5. The longer plaque builds up, the worse the damage. Tiny holes appear and expand until they become cavities.



## 24 ...and make your gums bleed

Most kids grow up learning about the connection between candy and cavities. As it turns out, **a high-sugar diet also inflames your gums and increases your risk of periodontal disease**, based on a 2014 study in the *American Journal of Clinical Nutrition*. (Signs of periodontal disease include bad breath, bleeding gums and sensitive teeth.)

## 25 You might be addicted

Though some researchers quibble with the idea that sugar is addictive, past studies, including a 2015 paper out of MIT, do show that **the sweet stuff elevates levels of the neurotransmitter dopamine, which forms a key part of the brain's reward and pleasure centres**, in a way that's remarkably similar to the effects of tobacco and morphine.

"There's growing evidence that sugar leads to cravings and withdrawal, which are the hallmarks of addictive disorders," says Schmidt. "You can see the effects on an MRI." Now, Australian researchers have discovered that drugs typically used to treat nicotine and cocaine addiction, such as varenicline, could be employed to help so-called sugar addicts kick their habits as well. **R**

