

A close-up photograph of a person's hands holding a red cupcake liner with a golden-brown cupcake inside. The cupcake is surrounded by several croissants and chocolate-covered nuts. The background is dark and out of focus.

EPOCH *Health*

The Ultimate Guide to

# Kicking Sugar

© 2022 The Epoch Times

The Epoch Times is the fastest-growing independent news media in America. We are nonpartisan and dedicated to truthful reporting.

The Epoch Times was founded in the United States in the year 2000 in response to communist repression and censorship in China. Our founders, Chinese-Americans who themselves had fled communism, sought to create an independent media to bring the world uncensored and truthful information.

The Epoch Times' media network currently covers 21 languages and 33 countries.

229 W 28th St, 7th Floor New York, NY 10001 Phone:  
833-699-1888 Fax: 646-213-1219  
[www.TheEpochTimes.com](http://www.TheEpochTimes.com)

Subscribe online by clicking here. Manage Your  
Subscription: <https://admin4.theepochtimes.com/profile>  
Help.TheEpochTimes.Com [Inquiries@EpochTimes.com](mailto:Inquiries@EpochTimes.com)

Too much sugar leads to dozens of health problems. But it shows up almost anywhere and we crave it. It's even hiding in "healthy" foods.

The good news is that you can enjoy sweet treats and avoid sugar's pitfalls. But you need the right information to make the best choices.

Our Ultimate Guide to Kicking Sugar it's packed with expert information you need to bring your healthy eating goals to the next level. "Hidden Sugars in 10 Common Foods" and "Sugar Industry Attempts to Manipulate the Science" are two of the 15 hard-hitting articles that are waiting for you.

# Table of Contents

<b>The Good and Bad of Sugars</b>	<b>8</b>
What Exactly Is Sugar?	8
Is Sugar More Addictive Than Drugs?	11
Worst Food for the Immune System	12
Eating Less Sugar Is Anti-Aging	13
Best Way to Cut Sugar	15
<b>Healthy, Delicious Sugar Alternatives</b>	<b>17</b>
Why Sugar Isn't Sugar Anymore	18
What About Zero-Calorie Sweeteners?	19
Nature Has the Solutions	20
<b>Hidden Sugar in 10 Common Foods</b>	<b>27</b>
1. Breakfast Cereals	29
2. Sushi	29
3. Commercial Sauces & Soups	30
4. Frozen Yoghurt	30
5. Smoothies	30
6. All Kinds of Bread	31
7. Condiments and Salad Dressing	31
8. Tinned Baked Beans	31
9. Muffins	32
10. Reduced Fat Yogurt	32
<b>Flashback Friday: Sugar Industry Attempts to Manipulate the Science</b>	<b>33</b>
<b>Say Goodbye to Sugar If You Want to Beat Cancer</b>	<b>37</b>
Hiding in Plain Sight	38

How Much Sugar Are You Eating?	38
Don't Be Fooled — Know the Names of Sugar	39
Cancer is Fueled by Sugar	39
<b>Kick the Sugar Habit—Without Going Crazy</b>	<b>42</b>
Tips to Kick the Sugar Habit	43
For Acute Cravings, Try One of These	46
<b>Why Drinking Diet Soda Makes You Crave Sugar</b>	<b>47</b>
Artificial Sweeteners Versus the Brain	49
Ending Sugar Addiction	51
<b>9 Surprising Foods with More Sugar Than a Krispy Kreme Doughnut</b>	<b>53</b>
9 Foods with More Sugar Than a Doughnut	54
Added Sugars Represent 17 Percent of the Average US Diet	55
Is There a Human Sugar Threshold?	56
Why Calories from Fructose May Be Especially Detrimental – The Fat Switch	57
Where Else Is Sugar Hiding?	58
Breaking Your Sugar Habit (Addiction)	58
<b>Healthier Sugar Swaps to Satisfy Your Craving</b>	<b>61</b>
<b>The Right Way to Cut Carbs and Sugar</b>	<b>64</b>
Fruit Versus Sugar	65
Sugar Toxicity	67
Detoxing From Sugar	68
<b>Low Sugar Diets Are Better for Your Gut</b>	<b>69</b>
How Sugar Damages Your Intestines	70
My Recommendations	71

**Why Kids Shouldn't Eat Added Sugar Before They Turn 2** **73**

- 1. Look on the Food Label 75
- 2. Switch to Healthier Drinks 76
- 3. Ditch Sugar During Food Prep 76
- 4. Know the Different Names for Sugar 76
- 5. Watch for Sugar Lurking in Packaged or Store-Made Foods 76
- 6. Try Again and Often 76

**Why Sugar Is so Much Worse for Teenagers' Brains** **78**

- The Teenage Brain Is a Work in Progress 80
- Teenage Brains Love Rewards 80
- Teenage Brains Are More Plastic 81

**10 Things That Happen to Your Body When You Eat Too Much Sugar—It's Very Similar to Cocaine Addiction** **82**

- 1. Constant Hunger 83
- 2. Foods Don't Taste as Sweet as Before 83
- 3. More Lines and Wrinkles 83
- 4. Constant Tiredness 84
- 5. Weight Gain 84
- 6. Easily Getting Thirsty 84
- 7. Frequent Trips to the Bathroom 85
- 8. You Can't Concentrate 85
- 9. Mood Swings 85
- 10. Muscle and Joint Pain 86

**What Do You Do When You're Craving Sugar?** **87**





We already know that sugar is not a healthy option for most people, but new information suggests there are those industries who want to hide its negative health effects. (Shutterstock)

## **THE GOOD AND BAD OF SUGARS**

*Sugar can be addictive as cocaine, even though it's one of the most critical substances to human life*

**By Yuhong Dong**

Known as “the sweetest killer” and “a poison more addictive than drugs,” sugar is consumed by virtually everyone. According to Dr. Heather Moday, a U.S. immunologist, during the COVID-19 pandemic, sugar is the worst food for your immune system.

### **What Exactly Is Sugar?**

Sugar is a food that everyone is very familiar with, and it's ubiquitous in our lives. We need sugars to maintain our



health, and they can also bring us relaxation and pleasure. However, sugar is like a double-edged sword that can also damage our health if left unchecked. So, what exactly is sugar?

Sugar is an umbrella term for a large group of carbohydrates. They're naturally occurring in many foods, but are added in substantial quantities in many processed foods.

## **Glucose**

Glucose is one of the body's two key energy sources. The other is fat. Glucose is sometimes known as blood sugar when it's measured inside the body. It's an energy-supplying substance that the human body and brain can directly utilize. Excess glucose is stored in the body in different ways. It can be converted into liver glycogen and muscle glycogen and then released into the blood to supply energy when needed. It can also be converted to fat.

Glucose is relatively rare in nature. Honey, for example, has a high amount of glucose and fructose. For the most part, glucose is created inside the body when we digest carbohydrates or starch.

## **Fructose**

Fructose is a sugar that's abundantly present in fruits, honey, and sweet vegetables, such as beets, potatoes, carrots, and onions. It's the "sweetest" of all sugars. It's 1.7 times sweeter than sucrose.

Fructose can't be directly used for energy in the body, and excess fructose can't be converted to glycogen storage like glucose, so it's mainly converted to fat. Fatty livers, obesity, and some other problems are mainly related to fructose. In addition, fructose reduces the body's sensitivity to insulin

and its ability to process fat, thus increasing the risk of diseases, such as heart disease and fatty liver disease.

However, eating fruits in appropriate moderation is beneficial and harmless to the human body, because the sugar in fruit isn't like free sugars, such as granulated sugar, but it's encapsulated inside the cells, as the cell walls of plants prevent fructose from being absorbed by the body too quickly.

What we need to be more vigilant about isn't the natural sugars in fruits and vegetables, but the added sugars, especially high-fructose corn syrup. These “free sugars” can make blood sugar levels rise rapidly.

## **Sucrose**

Sucrose is derived from sugar canes. Common sugars used in the food industry, such as white sugar, brown sugar, and rock sugar are all basically composed of sucrose.

## **Lactose**

Lactose, mainly derived from milk, is beneficial to the health of the intestines. However, some people lack lactase in their intestines and can't digest lactose. For them, after drinking milk, they'll develop lactose intolerance, and this may cause diarrhea.

## **Polysaccharides**

Polysaccharides are sugar chains composed of many glucose molecules. Starch and cellulose in rice and noodles are examples of polysaccharides. Cellulose comes from grains, fruits, and vegetables, and is very important to the human body's health.

# Is Sugar More Addictive Than Drugs?

Sugar is necessary to maintain our health, but we need to rationally face some of the health problems it also brings.

As mentioned, although fructose is high in sweetness, a moderate intake of fruits and vegetables is beneficial to the human body. What we really need to be wary of is artificially added free sugars, such as sweet chocolates, cakes, and other sweets that many people love.

We all know that children love to eat sugar. This is because children need a lot of energy when they're growing up. Sugar can also activate the "pleasure centers" of our brain and trigger the release of dopamine, which brings a sense of pleasure.

However, this can lead to addiction. There's even a saying that sugar is more addictive than drugs.

In 2007, a study by researchers at the University of Bordeaux in France conducted a particular reward experiment with rats. In this experiment, two levers were placed in front of the rats for them to choose freely. Choosing Lever C would give them the "reward" of cocaine (an addictive drug); choosing S would give them some water with saccharin, which has no calories—just a sweet taste. The rats chose sweetness over cocaine, even when the dose of cocaine was increased. They did another experiment with sucrose and found the same results.

"Our findings clearly demonstrate that intense sweetness can surpass cocaine reward, even in drug-sensitized and -addicted individuals. We speculate that the addictive potential of intense sweetness results from an inborn hypersensitivity to sweet tastants," the researchers wrote.

Other scientists looking at previous research found that sugar had potent effects on the brains of rats.

"Sugar is noteworthy as a substance that releases opioids and dopamine and thus might be expected to have addictive potential," researchers wrote in a 2008 review published in *Neuroscience & Behavioral Reviews*.

"Neural adaptations include changes in dopamine and opioid receptor binding, enkephalin mRNA expression and dopamine and acetylcholine release in the nucleus accumbens. The evidence supports the hypothesis that under certain circumstances rats can become sugar dependent. This may translate to some human conditions as suggested by the literature on eating disorders and obesity."

Another later research review came to similar conclusions.

"At the neurobiological level, the neural substrates of sugar and sweet reward appear to be more robust than those of cocaine (i.e., more resistant to functional failures), possibly reflecting past selective evolutionary pressures for seeking and taking foods high in sugar and calories," a 2013 review published in *Current Opinion in Clinical Nutrition and Metabolic Care* reads.

## **Worst Food for the Immune System**

Compared with other addictive substances, sugar addiction affects our body in a more subtle way, like a chronic poison.

Moday pointed out that during the COVID-19 pandemic, sugar is the worst food we can eat for the health and effectiveness of the immune system.

The *American Journal of Clinical Nutrition* conducted an experiment. After a group of subjects fasted overnight, they took 100 grams of free sugar orally on an empty stomach. As

a comparison, another group of subjects took the same amount of starch orally on an empty stomach. The experiment found ingesting free sugars cut the “combat power” of phagocytes by nearly half. Phagocytes are important immunity cells that protect us by ingesting harmful foreign particles, bacteria, and dead or dying cells.

The maximum reduction occurred between one and two hours after ingesting sugar. Even after five hours, immunity was still affected.

In contrast, the control group that ingested starch didn't show a decline in immunity. Therefore, eating a moderate amount of rice, noodles, and steamed bread won't harm the immune system the way that sugar will.

However, the negative effect of excessive intake of sugar on the immune system isn't limited to inhibiting the functions of phagocytes.

A high-sugar environment can also cause chronic inflammation and inhibit all aspects of the immune system, including white blood cells, natural killer cells, macrophages, and T cells, resulting in a decrease in the comprehensive ability of the human body to recognize and kill germs. Also, another study found that 50 percent of patients hospitalized with COVID-19 in the United States have diabetes or obesity.

Therefore, to improve our bodies' natural immunity, we must pay more attention to eating less added sugar.

## **Eating Less Sugar Is Anti-Aging**

Eating too much sugar is known to have several common health effects, such as tooth decay, weight gain, obesity, and diabetes. The increase in blood sugar caused by consuming sugar will also soak the body's cells in a high-sugar

environment, which will produce advanced glycation end products (AGEs).

AGEs are normally produced by the body's metabolism, and the ability to remove AGEs decreases with age. It has been shown that AGEs contribute to increased oxidative stress and inflammatory responses. They also accelerate aging and lead to many chronic degenerative diseases, such as diabetes, atherosclerosis, osteoporosis, kidney diseases, neurodegenerative diseases, cancer, and skin degeneration.

You can also ingest AGEs through dry heat cooking meats or baked goods. Beef and other red meats contain more AGEs than white meats. Therefore, for our own health, we can try to eat less roasted, fried beef and eat more beef stew instead, and the amount of AGEs will significantly decrease.

Back to the issue of sugar, a good question may be how much sugar we should eat every day?

Although an excessive intake of sugar is unhealthy, sugar is also essential for maintaining our bodies.

"Sugar is such an important element that scientists refer to it as the third building block of life—after DNA and protein," a 2021 article in Science Daily reads.

So, what amount of sugar should we consume daily?

According to the World Health Organization's latest dietary guidelines released in 2015, the amount of free sugar should be reduced to less than 5 percent of the total daily calorie intake and no more than 25 grams (six teaspoons) in order to avoid obesity, tooth decay, diabetes, heart disease, vascular diseases, and even cancer.

# Best Way to Cut Sugar

In order to improve health and the effectiveness of our immune system, people who are accustomed to eating sweets can consider reducing sugar. To reduce sugar, we must learn to read nutrition labels on food packaging. Sugar can go by many names, including agave nectar, brown sugar, cane crystal, cane sugar, corn sweetener, corn syrup, crystalline fructose, dextrose, evaporated cane juice, organic evaporated cane juice, fructose, fruit juice concentrates, glucose, high-fructose corn syrup, honey, invert sugar, lactose, maltose, malt syrup, molasses, raw sugar, sucrose, and syrup.

Check the sugar content of every item in your pantry. Also, eat fewer processed foods and more carbohydrates in the form of vegetables, beans, fruits, nuts, or seeds.

We often eat sugar for emotional reasons rather than for the needs of the body. Part of the reason they're so addictive is because they temporarily satisfy an emotional desire. They do this, we've learned, by increasing dopamine levels in a similar way to drugs, such as cocaine. If you refrain from consuming too much sugar, the desire to eat sugar will weaken; but if you indulge in eating sugar, then the desire will increase, and the next time will be even more difficult.

Part of the problem with the dopamine-triggering effects of sugar is how it compels us to overeat.

Scientists conducted an experiment in which one group of rats was fed to be 100 percent full, whereas another group was 70 fed to be percent full. Guess which group of rats lived longer? The rats that were fed to 70 percent full lived 20 percent longer than the first group.

Sugary foods provide an overpowering flavor that can denature our taste preferences. A normal flavor profile can satisfy us with good food that we don't feel compelled to overeat. Instead, we can savor and enjoy its taste. To be a person with good taste, literally and figuratively, we might as well start with how we eat and savor nuanced flavors while we hold excessive desires in check. This will also bring many benefits to our health.

***Yuhong Dong*** holds a M.D. from Beijing Medical University and a doctorate in infectious diseases from Beijing University. Dong has 17 years of working experience in viral infectious disease clinical treatment and antiviral drug research. Dong worked as a doctor in the First Affiliated Hospital of Beijing Medical University and then later as a Medical Scientific Expert specialized in antiviral drug clinical research in Novartis R&D. She currently works as a Chief Scientific Officer at a Swiss biotech company.





Honey contains over 181 health-promoting substances and turns the healthy vitality of plants into an energizing food perfect for humans. (grafvision/Shutterstock)

## HEALTHY, DELICIOUS SUGAR ALTERNATIVES

*As our consumption of GMO corn-based sweeteners grows, so does health risk*

**By Sayer Ji**

You may think that staying slim and eating healthfully means no sweets, but guess what? There are natural and delicious sweeteners that won't wreck your diet, and even have therapeutic "side effects."

No arena of health and wellness is more debatable than what we should be eating. Looking back through time, the foods that constitute a healthy diet have changed so dramatically, you can literally mark the passage of time by the coming and going of dietary fads.

- Weight-loss clubs and popping diet pills in the 1970s
- Cabbage soup and liquid diets in the '80s
- The Zone and blood-type diets (along with lawsuits related to diet pills!) in the '90s
- In the aughts, Atkins and gluten-free
- In the 2010s, it was Paleo, raw, and local

Despite this obsessive focus on what to eat, Americans are fatter—and in many ways—unhealthier than ever before<sup>[1]</sup>. In 2016, two-thirds of the adult population were considered overweight or obese, according to a U.S. Dept. of Health and Human Services study<sup>[2]</sup>. This health epidemic spans ethnic and cultural boundaries and is affecting more adults and children every year.

One factor that is contributing to America's growing weight problem is our obsession with sugar. You probably don't need to see the results of a clinical study to believe that the more sugary calories you consume, the greater your risks of obesity<sup>[3]</sup>. What you may not know, is that what passes for sugar these days is actually a hyper-sweetened extract of one of the cheapest, most heavily-sprayed, GMO-pervasive crops on the planet.

## **Why Sugar Isn't Sugar Anymore**

Despite a marked decrease in consumption of refined cane and beet sugars over the last generation, we are taking in more dietary sugar overall, thanks to the prevalence of corn-based sweeteners like high-fructose corn syrup, in nearly everything on grocery store shelves<sup>[4]</sup>.

Switching to corn-based sweeteners is a case of jumping from the funnel cake grease into the fire! Corn syrup has

become the go-to sweetening agent for processed foods due to its low cost and high concentration (at least 1.5 times that of cane sugar). Thanks to government subsidies, corn is alluringly cheap for food and beverage companies that need a steady supply of sweetness.

Corn is also a top GMO crop with at least 92 percent of the nation's corn supply being genetically modified to withstand large doses of herbicides<sup>[5]</sup>. Setting aside the shocking effects of GMO consumption, this intense concentration of simple sugar is wreaking havoc on the collective metabolism. Studies abound correlating intake of high-fructose sweeteners to increased risks of obesity, cardiovascular disease, hypertension, fatty liver disease, diabetes, and more<sup>[6]</sup>.

## **What About Zero-Calorie Sweeteners?**

Aspartame, Equal, sucralose, Splenda, saccharin: they go by many names but do any of them sound truly sweet? Not when you read the over 100 scientific abstracts Greenmedinfo has collected on the perils of artificial sweeteners. Chemical facsimiles of sugar, these unnatural compounds can be far worse than the real thing.

Linked to increased risks of kidney disease, metabolic dysfunction, diabetes, and obesity, these calorie-free sugar substitutes trick consumers into thinking that previously unhealthy foods can get "a sugar-free pass." But fake sugars are far from harmless. Studies show consuming synthetic sweeteners generates excessive cravings for the sweet taste, leading to weight gain and other negative effects linked to excessive sugar consumption<sup>[7]</sup>.

While it might be tempting to think that these sugar imposters can help you bypass the weight and still eat the

treats, if you value your health, steer clear of these dietary destroyers!

## **Nature Has the Solutions**

Wondering what options this leaves you when only something sweet will do? Fortunately, nature has got you covered. Here are four solutions for satisfying your sweet tooth that won't rot your teeth, create blood sugar imbalance, or cause weight gain. In fact, these natural wonders pack some amazing health benefits!

### **Xylitol**

Xylitol is a sugar alcohol derived from xylose—a crystalline sugar found in birch bark<sup>[8]</sup>. Sweet like sugar but with only 40 percent of the calories, xylitol is fast becoming the preferred sweetener of health-conscious consumers.

Low-carb dieters will find xylitol appealing, with less than a quarter of the carbohydrates found in cane sugar. It also stands apart from synthetic sweeteners thanks to its natural origins. Besides birch trees, xylitol is found in the cellular structure of fruits like raspberries, and in vegetables like the corn-cob. Even our bodies produce xylitol (between 5-15 grams per day) during normal metabolic processes.

With a glycemic rating of 13, xylitol is metabolized around eight times slower than regular sugar, making it a safer choice for diabetics. Unlike sugar, which provokes the release of insulin in response to its consumption, xylitol is metabolized independently of insulin in the gut. It metabolizes slower and steadier than sugar, making it a much safer sweetener for hypoglycemics and the sugar-sensitive.

And there's good news for sufferers of cavities or Candida: Xylitol actually discourages the bacterial growth that feeds these conditions. The bacteria that cause candida, dental caries, and even *Streptococcus mutans*, thrive in acid-based environments, with sugar as their food of choice. Xylitol is non-fermentable, creating an alkaline reaction in the body that bacteria find inhospitable. Xylitol consumption has been shown to dramatically decrease cavities and ear and throat infections, among other infectious organisms.

The dental health community are one of the biggest supporters of Xylitol. Studies have shown that plaque build-up and dental caries can be reduced by 80 percent with the introduction of moderate amounts of xylitol (up to half an ounce per day). Research also indicates that consuming xylitol may increase bone strength and bone density.

\*Important Notes: Xylitol can have a laxative effect, so start slowly. It is best to obtain Xylitol from a manufacturer who uses birch rather than corn. Finally, Xylitol is extremely toxic to dogs, so please keep it away from Fido! Xylitol is sometimes made from corn, which includes GMO corn. Look for the higher quality, non-GMO certified, and best of all: birch tree derived form.

## **Stevia**

Stevia is 300 times sweeter than sugar and without caloric content. The stevia plant has been used by native people to sweeten food and drink for centuries and its popularity as a modern sugar substitute grew in the 1990's.

Now there is new research that confirms what tribal cultures knew: this plant provides a safe, affordable and tasty alternative to expensive and potentially dangerous sweeteners.

The study<sup>[9]</sup>, published in August 2017, calls stevia "a suitable calorie-free sweetener," with both "pharmacological and therapeutic properties, including antioxidant, antimicrobial, antihypertensive, antidiabetic, and anticancer." Researchers further heralded stevia's positive effects on those metabolic conditions aggravated by excess sugar consumption, namely obesity, hypertension, and diabetes.

Stevia reduces blood sugar, reduces blood pressure, combats infections, and reduces risks of diabetes. One study even found that consuming stevia was as effective as a popular oral antidiabetic drug, but with fewer side effects.

If you haven't tried Stevia in a while, you will be pleasantly surprised by new formulations. What began as a strong-tasting plant extract only available in health food stores, is now widely available in crystallized-sugar form, as a finely distilled concentrate, and in formulations that approximate the less-sweet taste of cane sugar, but without the negative effects.

## **Raw Honey**

Identified as containing more than 181 health-promoting substances<sup>[10]</sup>, honey converts the vital, healing energy of plants into a medium that is perfect for human consumption. Rich in phytonutrients (nutrients absorbed from plants), raw honey is renowned worldwide for having powerful anti-oxidative and anti-inflammatory properties<sup>[11]</sup>.

Raw, unfiltered honey is very different from the pasteurized product you find on most grocery store shelves. Nearly all commercially-produced honey is heated to kill potentially harmful bacteria, reduce crystallization, and improve product flow. Unfortunately, this process also kills the vital, living enzymes and good bacteria which make raw honey one of the world's oldest-known superfoods.

The bacteria in raw honey serves as a prebiotic: a substance containing helpful microorganisms that aid in the process of digestion. When consumed raw, honey's natural enzymes aid in the breakdown and assimilation of the many nutrients it contains.

Raw honey is also rich in powerful antioxidants called phenolic compounds, known to play an important role in cancer prevention<sup>[12]</sup>. These compounds found in honey have also shown promise in reducing arterial blockages and lowering overall risks associated with cardiovascular disease<sup>[13]</sup>.

Perhaps most profound of all is that raw honey contains probiotic strains that are so ancient that one form of *Lactobacillus* present with certain varieties is believed to be of a lineage 80 million years old. In some ways, eating honey is a form of microbial time travel.

## **Molasses**

Blackstrap molasses, known to sugar-refiners as "final molasses," refers to the thick, brown syrup that is the end result of boiling sugar cane during the production of table sugar. What sets molasses apart from cane sugar, besides the obvious appearance, is its high nutritional value. Unlike its nutritionally bankrupt cousin, a 3.5 oz serving of blackstrap molasses contains more than a quarter of your daily supply of vital minerals such as iron, magnesium, potassium, manganese, and B vitamins<sup>[14]</sup>. Molasses delivers this nutritional punch with much less sugar, thanks to being at the end of the line of the crystalline-sugar extraction process<sup>[15]</sup>.

Molasses has long been a popular folk remedy, treating everything from menstrual cramps to constipation<sup>[16]</sup>. An old wives' tale credits an elixir of molasses and milk with having

the power to maintain endless youth and beauty. There may be some truth to this, thanks to molasses' high antioxidant content[17]. Polyphenols, the plant compounds that imbue antioxidant properties, are abundant in molasses, and have been recognized for having anti-cancer properties[18] in clinical studies.

A 2011 study showed that adding molasses to a high-fat diet had the effect of reducing body weight and body fat percentages, thanks to decreased calorie absorption. Researchers concluded that "supplementing food with molasses extract might be a way to address the escalating rates of overweight and obesity." [19]

Rich in copper, iron, and calcium, molasses can play a vital role in maintaining healthy blood and bones. This makes molasses a great alternative to non-nutritive sweeteners for pregnant or nursing women, or women who are trying to become pregnant. It also makes a great dietary supplement for women at risk of developing osteoporosis.

These four, healthful alternatives to sugar prove that craving a taste of sweetness doesn't have to cause cavities, promote weight gain, or lead to blood sugar imbalances. On the contrary, when we look to nature, we find natural foods which actually sweeten our health, as well as our palates.

**Sayer Ji** is the founder of *Greenmedinfo.com*, a reviewer at the *International Journal of Human Nutrition and Functional Medicine*, co-founder and CEO of *Systeme Biomed*, and adviser to the *National Health Federation*. This article was originally published on *GreenMedinfo.com*

## References

[1] [https://www.cdc.gov/nchs/data/nhis/earlyrelease/Earlyrelease201705\\_06.pdf](https://www.cdc.gov/nchs/data/nhis/earlyrelease/Earlyrelease201705_06.pdf)



- [2] <https://www.niddk.nih.gov/health-information/health-statistics/overweight-obesity>
- [3] <https://www.ncbi.nlm.nih.gov/pubmed/23321486>
- [4] [https://www.pewresearch.org/fact-tank/2016/12/13/whats-on-your-table-how-americas-diet-has-changed-over-the-decades/ft\\_16-12-09\\_food\\_more\\_less/](https://www.pewresearch.org/fact-tank/2016/12/13/whats-on-your-table-how-americas-diet-has-changed-over-the-decades/ft_16-12-09_food_more_less/)
- [5] <https://www.centerforfoodsafety.org/issues/311/ge-foods/about-ge-foods#>
- [6] <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4477723/>
- [7] <https://care.diabetesjournals.org/content/32/4/688>
- [8] <https://www.merriam-webster.com/dictionary/xylitol>
- [9] <https://www.ncbi.nlm.nih.gov/pubmed/28792778>
- [10] White JW. Composition of honey. In: Crane E, editor. *Honey, a comprehensive survey*. London: Bee research Association and Chalfont St Peter; 1975. pp. 157–206.
- [11] <https://www.livescience.com/52541-phytonutrients.html>
- [12] <https://www.ncbi.nlm.nih.gov/pubmed/20043255>
- [13] <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3005390/?tool=pubmed>
- [14] <https://en.wikipedia.org/wiki/Molasses>
- [15] <https://www.sciencedirect.com/topics/medicine-and-dentistry/sugarcane-juice>
- [16] [https://journals.lww.com/pec-online/Abstract/2011/12000/Safety\\_and\\_Efficacy\\_of\\_Milk\\_and\\_Molasses\\_Enemas.3.aspx](https://journals.lww.com/pec-online/Abstract/2011/12000/Safety_and_Efficacy_of_Milk_and_Molasses_Enemas.3.aspx)
- [17] <https://www.ncbi.nlm.nih.gov/pubmed/19103324>

[18] <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC305362/#B31>

[19] <https://www.sciencedaily.com/releases/2011/07/110712094038.htm>



(Ryan Pouncy/Unsplash)

## **HIDDEN SUGAR IN 10 COMMON FOODS**

**By Neesha Gill**

Ever wondered why you're packing on loads of weight, even though you think you're eating healthfully? The truth is, many foods we perceive to be healthy (thanks to clever marketing, usually) may be far from it! Some contain hidden ingredients like trans fats, which the body has a hard time breaking down, as well as artificial colourings and preservatives. But added sugar is, arguably, the most common culprit—it's put into foods to increase their flavour, especially in reduced fat foods.

But just because there's a nutrition-oriented statement on the package (like "contains whole grain," "excellent source

of calcium," "fat-free," "100% juice" or "25% less sugar") doesn't mean it *doesn't* contain a shocking amount of sugar. And just because the brand name or product name sounds like it's good for weight loss (Weight Watchers, Skinny Cow, etc.), don't assume the food is lower in sugar.

So how much exactly is a gram of sugar? One teaspoon of granulated sugar equals 4 grams. In other words, 16 grams of sugar in a product is equal to about 4 teaspoons of granulated sugar. Women's recommended daily sugar intake is around 25 grams, and men's 36, but it's very easy to exceed that without even knowing it, thanks to hidden added sugars in commercial products. No wonder there's an obesity epidemic!

Whilst it was once thought that sugar was only bad for our teeth, people are waking up to the fact that sugar is incredibly harmful to our health overall. Researchers now say that it's implicated in the rise of Type 2 diabetes, heart disease, stroke, depression and even cancer.

Yet as consumers try to avoid sugar in food, companies have gotten wise to that and have started to disguise the sugar in their products, so it's not as apparent how much sugar you are consuming—but don't be fooled. 'Sugar' is seen on the label as a long list in many different forms you should be aware of, including:

- Agave nectar, Brown sugar, Cane crystal, Cane sugar, Corn sweetener, Corn syrup
- Crystalline fructose, Dextrose, Evaporated cane juice, Organic evaporated cane juice
- Fructose, Fruit juice concentrates, Glucose, High- fructose corn syrup, Honey, Invert sugar
- Lactose, Maltose, Malt syrup, Molasses, Raw sugar, Sucrose, Syrup

Basically, if it has -ose at the end of it, avoid it. But don't think going 'sugar free' is any better: commercial brands that use this label often substitute sugar with something far deadlier: artificial sweeteners. These have been linked to metabolic disorders, liver problems, cancer, and ironically, weight gain.

It may seem like a quagmire, but there are easy ways to reduce your sugar intake—education is the first step! Learn about the hidden sugars in 10 common foods and either avoid them, or substitute them for healthier options, as explained below.

## 1. Breakfast Cereals

Whilst it's pretty obvious that cereals like 'Froot Loops' or 'Honey Nut Cheerios' and just about anything aimed at children are packed with sugar, even more 'adult' options like granola are certainly not as nutritious as they may appear. A single bowl of Quaker Oat Granola, for example, can have 23 grams of sugar—almost a woman's entire daily intake. Add dried fruit and the GI is off the charts.

**What to eat instead:** Muselli is usually lower in both fat and sugar. You can also make your own sugar free granola instead. Try this Wildish Grain-Free Granola recipe [here](#).

## 2. Sushi

Whilst rice and vegetables may seem healthy, the reality is that sushi (especially the cheap supermarket kind) is high in low fibre carbs, salt and calories and low in just about anything else, including protein. And yes, did you know that sushi rice wouldn't be sushi rice without some added sugar?

**What to eat instead:** Home made brown rice sushi is great! Otherwise, when going out, try sashimi. This is low sugar,

low cal, 100 percent protein, and is usually very low in sodium (depending on how much soy sauce you add).

### 3. Commercial Sauces & Soups

Whether it's a spicy curry sauce, savory BBQ sauce or a basic tomato sauce for your spaghetti, almost anything in a jar will come with loads of added sugar—and that includes soup.

**What to eat instead:** Check the labels—there's really no need for added sugar in something like chicken soup, right? But for some sauces, like BBQ or Sweet'n'Sour, there will be sugar—just check to see which brand has the lowest, if you must use one of those sauces. The best option? Make your own!

### 4. Frozen Yoghurt

You can pile on as many fresh fruit toppings as you like, but frozen yoghurt itself is as just as bad as eating ice-cream in terms of sugar content. Consider this as a dessert, not a healthy snack.

**What to eat instead:** Try making your own frozen desserts with fruits and vegetables!

### 5. Smoothies

Smoothies are definitely having a moment right now, and can certainly be a healthy option, so long as you consider them part of a meal rather than a drink (they have calories, of course, unlike coffee, tea or water) and choose the right kind. But commercial ones are usually packed full of sugar or high in calories thanks to highly concentrated fruit juice—some even contain more sugar than fizzy drinks!

**What to eat instead:** If you're getting one in a restaurant, ask whether they're using concentrated fruit juice. Many do. As for anything pre-made in a bottle, well—better just to make your own.

## 6. All Kinds of Bread

It should go without saying that white bread is full of sugar—it's a highly processed 'food' after all! But don't be fooled by multigrain and wheat breads—many are only 'brown' thanks to caramel coloring, and surprisingly, many also contain much added sugar. Make sure you read the label first, as some breads can contain up to 16g of sugar for a single slice! Sometimes, 'refined grains' are often also added, which up the GI and reduce the nutritional value.

**What to eat instead:** Try rye bread, which has a lower GI, or even better, get some spelt bread, which is full of B vitamins.

## 7. Condiments and Salad Dressing

Ketchup has long been known to be packed with sugar—around 4g per tablespoon, in fact. But other condiments, like Thousand Island salad dressing, Honey Mustard salad dressing, relish and even spicy salsa can even contain more sugar—one salsa brand has 7 grams of sugar per serving!

**What to eat instead:** Add flavor to your food with basic oil, balsamic vinegar and lemon, or read the labels and choose the condiment with the lowest sugar.

## 8. Tinned Baked Beans

Whilst baked beans are high in fibre, most branded tins contain lots of sugar, colourants and additives.

**What to eat instead:** Make your own! Buy plain white, navy or black beans and add your own tomato sauce, either organic from a jar, or home made.

## 9. Muffins

Just because it has 'apple' in the name, some brand sprinkled inside or a few oats and seeds on top doesn't mean a muffin is healthy! Many found in coffee shops are just basically cakes, packed full of sugar, chemicals and trans fats.

**What to eat instead:** If you want cake, eat cake. It's probably got fewer artificial ingredients than a commercial muffin. Otherwise, make your own from recipes like these from the Minimalist Baker.

## 10. Reduced Fat Yogurt

Reduced fat yogurt actually contains around the same amount of calories as the normal kind, thanks to a higher sugar content. And don't think diet yogurts are any better: they usually use carcinogenic sweeteners. Ew!

**What to eat instead:** Buy some plain, organic Greek style yogurt and add your own fruit and a touch of natural sweetener, like Stevia or coconut sugar. We also like vegan friendly soya yogurt, though watch the label for added sugars, too!

*This article was originally published on [www.eluxemagazine.com](http://www.eluxemagazine.com).*





(Marcos Mesa Sam Wordley/Shutterstock)

## **FLASHBACK FRIDAY: SUGAR INDUSTRY ATTEMPTS TO MANIPULATE THE SCIENCE**

**By NutritionFacts.org**

“Corporations are legally required to maximize shareholder profits and therefore have to oppose public health policies that could threaten profits.” It’s just how the system is set up. “Unequivocal, longstanding evidence shows that to achieve this, diverse industries with products that can damage health have worked systematically to subvert the scientific process.”

Take the sugar industry, for example. Internal documents showed they were concerned that health food “faddists” were becoming “an active menace to the... industry.” Sugar was under attack, “and many of the poor unfortunate public swallow the misinformation broadcast by the propagandists.” What were books like Yudkin’s *Pure, White and Deadly* saying? “All the propaganda [is] to the effect that sugar is a non-essential food.” Gasp! No! How dare they say sugar is a non-essential food? Next, they’ll be saying it’s not really food at all. And, that was the sugar industry’s line: “sugar is a cheap, safe food”—and this coming from the founder and chair of Harvard’s nutrition department, Fredrick Stare, long known as “Harvard’s sugar-pushing nutritionist.”

Watch video [here](#).

Not only did the sugar industry try to influence the direction of dental research, but heart disease research as well, paying Stare and colleagues to write this review to help downplay any risk from sugar. Now, to be fair, this was five years before we even realized triglycerides were also an independent risk factor beyond just cholesterol. The main reason attention stayed focused on saturated fat is not because of the might of the sugar industry; there was just not as much data to support it.

In fact, “the [even] more powerful meat and dairy industries” *loved* the anti-sugar message. Who do you think sponsored Yudkin? In fact, on like the first page of *Pure, White and Deadly*, he thanks all the food and drug companies that had provided him with such “constant generous support.” Who paid for Yudkin’s speaking tour? The *egg* industry, of course—to try to take some heat off cholesterol.

Hegsted, one of the co-authors of the funded review, wasn’t exactly an industry cheerleader. He recommended people cut down on all the risky stuff: “less meat, less saturated fat,

less cholesterol, [and] less sugar, less salt.” It wasn’t the sugar industry that got him fired for speaking truth to power; it was the beef industry.

The sugar industry was able to conceal its funding, because the *New England Journal of Medicine* didn’t require disclosure of conflicts of interest until 17 years later. These muckraking researchers suggest policymakers “should consider giving less weight to food industry-funded studies.” But why is the food industry funding studies at all? When it comes to the “corporate manipulation of research,” ultimately conflicts of interest don’t just need to be disclosed and “managed,” but ideally “eliminated.”

Things may not change until public health researchers start “refus[ing] to take money from the [junk food] industry,” period. “It worked for tobacco.” Many prestigious medical and public health institutions “have...instituted bans on tobacco industry funding.”

But wait; can’t scientists remain “objective [and] impartial” even in the face of all that cash? Apparently not, as “[i]ndustry funded research” has been shown to be up to 88 times more likely to produce funder-favorable outcomes. What do we think corporations are in the business of just handing out money for free?

The classic example is the American Academy of Pediatric Dentistry, who “accepted \$1 million [grant] from Coca-Cola.” Before the grant, their official position was that “frequent consumption of [sugary beverages] can be a significant factor in the... initiation and progression of dental [cavities],” which—*after* the grant—changed to “scientific evidence is *certainly* not clear on the exact role that soft drinks play.”

As CSPI’s Integrity in Science Project put it, “What a difference a million dollars makes!”

Also worth watching is Professor Robert H. Lustig's seminal talk, "Sugar: The Bitter Truth."

Watch video [here](#).

*This story was originally published on the NutritionFacts.org site.*



Sugar is in many processed foods, and Americans are eating an average of about 150 or more pounds of sugar a year. (Shutterstock)

## **SAY GOODBYE TO SUGAR IF YOU WANT TO BEAT CANCER**

**By James Templeton**

*Breaking up Is Hard to Do, but When You Realize Your Life Is at Stake, Suddenly the Choice Becomes Crystal Clear.*

There may be no greater contributor to the #2 cause of deaths across the United States (cancer) than the sweet but far-from-innocent ingredient that has found its way into most of the pre-packaged foods that line our grocery aisles and are stashed away in our kitchen cabinets.

## Hiding in Plain Sight

Before you pat yourself on the back for avoiding the obvious culprits (cookies, cakes, and pies), take a long look at the hidden forms of this enemy that robs us of our health and steals years from our life.

Don't kid yourself. Sugar is not just present in those cookies, candies, and desserts that are easily recognizable as villains. Sugar is also present in a whopping 74% of a variety of savory packaged goods like breads, pasta sauce, and even so-called "healthy foods" like yogurt or those handy breakfast bars made with not-so-real fruit and whole grains.

Just a glance at the ingredients of many of these common foods that unaware shoppers consider "healthy" — reveals a staggering *unhealthy* amount of sugar. And for cancer patients, this is a deadly decision.

## How Much Sugar Are You Eating?

A lot has changed, and not for the better. Over 200 years ago, the average American consumed an average of 2 lbs. of sugar per year. Now, the average American consumes an average of 152 lbs. of sugar in one year—or 3 lbs. of sugar *in one week!*

And while we may kid ourselves that we're avoiding added sugar by foregoing that teaspoon or two of white granulated sugar into our coffee or tea, we're often sabotaging our own efforts by not recognizing the hidden sugar content in a variety of common foods.

For example:

- 12 oz. sodas contain upwards of 11 teaspoons of sugar

- Quaker Chewy Yogurt Granola Bars contain 10 grams of added sugar per bar
- Dannon Strawberry Fruit on the Bottom yogurt contains 15 grams of added sugar per 5.3 oz. container
- Monster Energy drinks contain 54 grams of sugar per 16 oz. can
- Honey Nut Cheerios contain 12 grams of added sugar per cup
- Yogurt-covered raisins contain 64 grams of total sugar per 100 gram serving
- A 20-ounce bottle of Heinz tomato ketchup contains about 2/3 cup sugar
- Jack Daniel's barbecue sauce contains approximately 1 cup sugar in each 19 oz. bottle
- One cup of regular baked beans contains about 5 teaspoons of sugar

## **Don't Be Fooled — Know the Names of Sugar**

Always check the ingredients on the packaged foods and drinks you buy. Look for and avoid sugar in all its forms: glucose, maltose, sucrose, lactose, dextrose, fructose (basically anything that ends in -ose), raw sugar, brown sugar, powdered sugar, fruit juice concentrate, high-fructose corn syrup, sorghum syrup, corn sweetener, molasses, alcohol, and synthetic sugars such as sorbitol, mannitol, xylitol, NutraSweet, and Equal.

## **Cancer is Fueled by Sugar**

If you've read my book, *I Used to Have Cancer*, then you know that I learned quickly that cancer feeds on sugar of all kinds. Not only does sugar have a negative effect on the body's pH, scientists have discovered that proteins linked to cancer can be activated by glucose (remember, that is a form of sugar).

Once you've got sugar out of your system, you won't miss it! Your taste buds will begin to "re-set" and your sugar cravings will become a thing of the past. You'll discover the sweetness of vegetables, and your body will thank you.

Learn more about how saying goodbye to sugar can be a powerful deterrent to cancer. Check out *I Used to Have Cancer*, available online and at your favorite bookstore. Learn how to avoid common pitfalls when dealing with cancer, as well as how to substantially increase your odds of beating this disease!

Also see my latest video interview with cancer survivor and former World Champion extreme skier Alison Gannett. Her battle with cancer included her discovery of the role glucose played in the formation of a very large brain tumor. I think you'll find the interview fascinating.

And remember, if we can beat cancer (and we did), YOU can, too!

**James Templeton** founded Uni Key Health Systems in 1992 and now the Templeton Wellness Foundation as a way of giving back and helping others achieve the health and wellness they are seeking. This story was originally published on the Templeton Wellness Foundation Blog.

## References:

"Hidden in Plain Sight," University of California San Francisco, *Sugar Science*. <https://sugarscience.ucsf.edu/hidden-in-plain-sight>.

"How Much Sugar Do You Eat? You May Be Surprised!," NH DHHS-DPHS-Health Promotion in Motion. <https://www.dhhs.nh.gov/dphs/nhp/documents/sugar.pdf>.



*“14 ‘Health Foods’ That May Not Be as Nutritious as You Thought,” Healthline. <https://www.healthline.com/nutrition/junk-health-foods>.*

*“17 Foods and Drinks That Are Surprisingly High in Sugar,” Healthline. <https://www.healthline.com/nutrition/18-surprising-foods-high-in-sugar>.*

*Hollis Johnson and Talia Lakritz, “Photos show the surprising amount of sugar in 14 of America’s favorite condiments,” Insider.com. <https://www.insider.com/sugar-in-condiments-nutrition-facts-2019-8>.*

*T. Nakagawa, M.A. Lanaspa, I. San Millan, et. al., “Fructose Contributes to the Warburg Effect for Cancer Growth,” *Cancer Metab* (2020);8,16. <https://doi.org/10.1186/s40170-020-00222-9>.*



Retrain your taste buds for healthy sweetness with delicious real fruit.  
(FamVeld/Shutterstock)

## **KICK THE SUGAR HABIT—WITHOUT GOING CRAZY**

*These 20 tips can help you gain control over your urges for the sweet stuff*

**By Frank Lipman**

As the saying goes—everyone is talking about sugar, but what are they doing about it? It's my fervent wish that they are working on quitting the stuff.

Why?

The short answer is that sugar is an extraordinarily destructive substance that most people eat far too much of. The longer answer is that virtually every day, more studies

are proving what we in the optimal health community have always believed: that sugar plays a pivotal role in the development of many of the devastating illnesses we fear most, namely heart disease, cancer, diabetes, and Alzheimer's, to name a few. Granted, the body does need trace amounts of sugar to function, but the average American is eating sugar by the pound, not the molecule.

Some estimates put the average adult intake at close to 130 pounds of sugar per year—an astonishing amount of any substance, much less one which has such disastrous health implications. So what do we do now? In a nutshell: kick sugar to the curb—your life absolutely depends on it.

## Tips to Kick the Sugar Habit

Here are a few thoughts on how to break free from sugar so you can live the sweet life for years to come.

**1. Eat regularly.** Eat three meals and two snacks or five small meals a day. For many people, if they don't eat regularly, their blood sugar levels drop, they feel hungry, and are more likely to crave sweet sugary snacks.

**2. Choose whole foods.** The closer a food is to its original form, the less processed sugar it will contain. Food in its natural form, including fruits and vegetables, usually presents no metabolic problems for a normal body, especially when consumed in variety.

**3. Have a breakfast of protein, fat, and phytonutrients to start your day off right.** Breakfast smoothies are ideal for this. The typical breakfast is full of carbs and sugary or starchy foods. This is the worst option, since you'll trigger sugar cravings for the rest of the day. Eating a good breakfast is essential to prevent sugar cravings.

**4. Try to incorporate protein and/or fat with each meal.** This helps control blood sugar levels. Make sure they are healthy sources of each.

**5. Add spices.** Coriander, cinnamon, nutmeg, cloves, and cardamom will naturally sweeten your foods and reduce cravings.

**6. Take a good-quality multivitamin and mineral supplement, omega 3 fatty acids, and vitamin D3.** Nutrient deficiencies can make cravings worse, and the fewer nutrient deficiencies, the fewer cravings. Certain nutrients seem to improve blood sugar control, including chromium, vitamin B3, and magnesium.

**7. Move your body.** Exercise, dance, do some yoga, or rake some leaves. Whatever movement you enjoy will help reduce tension, boost your energy, and decrease your need for a sugar lift.

**8. Get enough sleep.** When we are tired, we often use sugar for energy to counteract the exhaustion.

**9. Do a detox.** My experience has been that when people do a detox, not only does it reset their appetites, but it often decreases their sugar cravings. After the initial sugar cravings pass, our bodies adjust and we won't even want the sugar anymore.

**10. Be open to explore the emotional issues around your sugar addiction.** Many times our craving for sugar is more for an emotional need that isn't being met.

**11. Keep sugary snacks out of your house and office.** It's difficult to snack on things that aren't there. You'll reduce impromptu indulgences if they require a trip to the store.

**12. Don't substitute artificial sweeteners for sugar.** This will do little to alter your desire for sweets. If you do need a sweetener, try Stevia, it's the healthiest.

**13. Learn to read labels.** Educate yourself about what you're putting into your body—though I would encourage you to eat as few foods as possible that have labels. The longer the list of ingredients, the more likely sugar is going to be included on that list.

Check the grams of sugar, and choose products with the least sugar per serving (1 teaspoon of sugar is roughly equivalent to 4 grams). Become familiar with sugar terminology and recognize that all of these are sweeteners: agave, corn syrup, corn sugar, high fructose corn syrup, sucrose, dextrose, honey, cane sugar, cane crystals, fruit juice concentrates, molasses, lactose, dextrin, and many more.

**14. Avoid sugar in disguise.** Remember that most of the “complex” carbohydrates we consume like bread (including whole wheat), bagels, and pasta aren't really complex at all. They are usually highly refined or act just like sugars in the body and are to be avoided.

**15. Scare yourself straight.** Our national love affair with sugar isn't all in the mind, since there is a strong physical component to sugar addiction. That said, one way to kick off your sugar-free journey is to reframe the way you think about sugar. Treat it like an illicit drug, a kind of legal form of heroin, a dark force to be avoided, and a substance whose use leads to physical ruin. Next, take a look at CBS's 60 Minutes “Is Sugar Toxic?” story—it's a potentially life-changing report for anyone who needs just a bit more inspiration to help them kick sugar.

## For Acute Cravings, Try One of These

**16. Take L-Glutamine, 1000-2000 mg every couple of hours as necessary.** This **amino acid** is found naturally in the body. It often relieves sugar cravings as the brain uses it for fuel.

**17. Take a “breathing break.”** Find a quiet spot, get comfortable, and sit for a few minutes and focus on your breath. After a few minutes of this, the craving will pass.

**18. Distract yourself. Go for a walk, if possible, in nature.** Cravings usually last for 10 to 20 minutes maximum. If you can distract yourself with something else, it often passes. The more you do this, the easier it gets and the cravings get easier to deal with.

**19. Drink lots of water.** Sometimes drinking water or seltzer water can help with sugar cravings. Also, sometimes what we perceive as a food craving is really thirst.

**20. Have a piece of fruit.** If you give in to your cravings, have a piece of fruit; it should satisfy a sweet craving and is much healthier.

*Dr. Frank Lipman is the founder and director of the Eleven Eleven Wellness Center in New York City.*



That diet soda isn't going to satisfy your sweet tooth. In fact, research indicates it will make it worse. (Krakenimages.com/Shutterstock)

## WHY DRINKING DIET SODA MAKES YOU CRAVE SUGAR

*Your tongue might be fooled, but your body and brain pay a price for sweet cravings*

**By Michael Greger**

Recommendations on limiting sugar consumption vary around the world, with guidelines ranging from one sweet dessert every other day to keeping sugar consumption to four or less occasions per day.

In the United States, the American Heart Association calls for “dramatic reductions in the consumption of soft drinks and other sweetened products” and recommends fewer than 5

percent of our daily calories come from added sugars, which can be less than a single can of soda.

Why is the American Heart Association so concerned about sugar?

“Overconsumption of added sugars has long been associated with an increased risk of cardiovascular disease,” warns researcher Laura A. Schmidt in a study published in JAMA Internal Medicine.

We used to think added sugars were just a marker for an unhealthy diet. At fast-food restaurants, for example, people may be more likely to order a cheeseburger with their super-sized soda than a salad. However, the new thinking is that the added sugars in processed foods and drinks may be independent risk factors in and of themselves. Indeed, worse than just empty calories, they may be disease-promoting calories.

The data show that only about 1 percent of Americans meet the American Heart Association recommendation to keep added sugar intake down to 5 or 6 percent of daily caloric intake. Most people are up around 15 percent, which is where cardiovascular disease risk starts to take off. There is a doubling of risk at about 25 percent of calories and a quadrupling of risk for those getting one-third of their daily caloric intake from added sugar.

Two hundred years ago, we ate an estimated seven pounds of sugar annually. According to the Diabetes Council, that figure rose to 17.5 pounds by 1915. As of today, Americans consume around 66 pounds of added sugar, which doesn't include naturally occurring sugars in fruit and milk.

We're hardwired to like sweet foods because we have always been surrounded by fruit, not Froot Loops, but this



adaptation has been hijacked by the food industry for our pleasure and their profits.

“Why are we consuming so much sugar despite knowing too much can harm us?” asks a 2015 study published in JAMA Internal Medicine. Yes, it may have an addictive quality and there’s the hardwiring, but the processed food industry isn’t helping. Seventy-five percent of packaged foods and beverages in the United States contain added sweeteners, mostly coming from sugar-sweetened beverages like soda, which are thought responsible for more than 100,000 deaths worldwide and millions of years of healthy life lost.

Can we switch to diet sodas? Unfortunately, no.

## **Artificial Sweeteners Versus the Brain**

It seems switching to diet soda makes little difference.

“Routine consumption of diet soft drinks is linked to increases in the same risks that many seek to avoid by using artificial sweeteners—namely type 2 diabetes, metabolic syndrome heart disease, and stroke,” warns Susan E. Swithers in her 2015 study, "Not so Sweet Revenge: Unanticipated Consequences of High-Intensity Sweeteners."

“In other words, the belief that artificially sweetened diet beverages reduce long-term health risks is not supported by scientific evidence, and instead, scientific data indicate that diet soft drink consumption may contribute to the very health risks people have been seeking to avoid,” writes Swithers.

But, why? It makes sense that drinking all that sugar in a regular soft drink might increase stroke risk, due to the extra inflammation and triglycerides, but why does a can of diet soda appear to increase stroke risk the same amount?

It's possible that the caramel coloring in brown sodas like colas plays a role, but another possibility is that "artificial sweeteners may increase the desire for sugar-sweetened, energy-dense beverages/foods," finds a 2014 study published in the *Journal of General Internal Medicine*.

The problem with artificial sweeteners "is that a disconnect ultimately develops between the amount of sweetness the brain tastes and how much glucose [blood sugar] ends up coming to the brain," writes influential cell biologist Lewis Cantley in a 2013 study. The brain feels cheated and "figures you have to eat more and more and more sweetness in order to get any calories out of it."

"As a consequence, at the end of the day, your brain says, 'OK, at some point I need some glucose [blood sugar] here.' And then you eat an entire cake because nobody can hold out in the end," he writes.

How strangely fake sweeteners affected eating habits was explored in a 2014 study by the Department of Psychology at Texas Christian University.

If people are given Sprite, Sprite Zero (a zero-calorie soda), or unsweetened, carbonated, lemon-lime water, but aren't told which drink they're getting or what the study is about, when they're later offered a choice of M&M's, spring water, or sugar-free gum, who do you think picks the M&M's? Those who drank the artificially sweetened soda were nearly three times more likely to take the candy than those who consumed either the sugar-sweetened or unsweetened drinks.

So, it wasn't a matter of sweet versus non-sweet or calories versus no-calories. There's something about non-caloric sweeteners that somehow tricks the brain.

Researchers did another study in which everyone was given Oreos and were then asked how satisfied the cookies made them feel. Once again, those who drank the artificially sweetened Sprite Zero reported feeling less satisfied than those who drank the regular Sprite or the sparkling water.

## **Ending Sugar Addiction**

Just like addictive drugs, sugar isn't something you can dabble in.

“The only way really to prevent this problem—to break the addiction—is to go completely cold turkey and go off all sweeteners—artificial as well as fructose. Eventually, the brain resets itself and you don't crave it as much,” advises Cantley.

We've always assumed consuming sweetened foods, whether that be artificially sweetened or not, changes our palates, and research appears to back that up.

Carole Bartolotto, formerly with a major health care consortium in Southern California, did a study that had 20 people agree to cut out all added sugars and artificial sweeteners for two weeks. Afterward, 95 percent said sweet foods and drinks tasted "sweeter or too sweet." They also said they would use less sugar or no sugar in the future.

What's more, most stopped craving sugar within the first week—after only six days. This suggests a two-week sugar challenge, or even a one-week challenge, may “help to reset taste preferences and make consuming less or no sugar easier,” she writes. Perhaps, concludes Bartolotto, we should recommend it to our patients.

“Eating fewer processed foods and choosing more real, whole, and plant-based foods make it easy to consume less sugar,” she advises.

Watch the video [here](#).

**Michael Greger, MD, FACLM**, is a physician, New York Times bestselling author, and internationally recognized professional speaker on a number of important public health issues. He has lectured at the Conference on World Affairs, the National Institutes of Health, and the International Bird Flu Summit, testified before Congress, appeared on “The Dr. Oz Show” and “The Colbert Report,” and was invited as an expert witness in defense of Oprah Winfrey at the infamous “meat defamation” trial. This article was originally published on [NutritionFacts.org](http://NutritionFacts.org).



(grThirteen/iStock)

## **9 SURPRISING FOODS WITH MORE SUGAR THAN A KRISPY KREME DOUGHNUT**

**By Joseph Mercola**

A major new report by Credit Suisse Research Institute explores the impact of sugar and sweeteners on humans' diets, with some shocking revelations and statistics.

Worldwide, the average person consumes 70 grams of sugar and high-fructose corn syrup per day (that's 17 teaspoons), up 46 percent from three decades ago.

Yet, in countries like the US, Brazil, Australia and Mexico, sugar consumption is actually much higher, averaging 40

teaspoons per person per day for Americans (compared to just seven for those living in China).

And when children younger than 4 are removed from the mix, sugar consumption in the US rises by another 5-10 percent! It's a shocking amount of sugar, but what is even more startling is the potential damage it can do to your health.

## 9 Foods with More Sugar Than a Doughnut

While you may consider yourself savvy when it comes to spotting sugar-laden foods, the report revealed some real sugar shockers. Before we get into just how troublesome all of this excess sugar may be, let's first look at how *stealthily* it is hidden in some seemingly healthful foods.

The following nine foods all have more sugar than a Krispy Kreme doughnut (which, for comparison, contains 10 grams of sugar):

1. Luna bar: 11 grams of sugar
2. Grande Starbucks latte: 17 grams
3. Subway 6" sweet onion teriyaki chicken sandwich: 17 grams
4. Tropicana orange juice, 8 ounces: 22 grams
5. Yoplait original yogurt: 27 grams
6. Vitamin Water, 20 ounces: 33 grams
7. Sprinkles red velvet cupcake: 45 grams
8. California Pizza Kitchen Thai chicken salad: 45 grams
9. Odwalla superfood smoothie, 12 ounces: 50 grams

# Added Sugars Represent 17 Percent of the Average US Diet

...but when all forms of sugars are included, the data suggests that sugar makes up 38 percent of the typical US diet.

Among added sugars, 43 percent come from sweetened beverages, which is concerning since it's now known that calories in liquid form are processed differently by your body than those consumed in solid form. The report noted:

*"Mattes et al demonstrated that ingesting a beverage did not impact the amount of calories that were ingested during a subsequent meal or in the 24-hour period after the beverage was consumed.*

*When a solid food was given, however, the number of calories that were ingested in the following meal and in the following 24-hour period was reduced, suggesting the solid calories that had been ingested were processed in a different way, either in the intestine or in the central nervous system, so that the body appropriately adjusted its subsequent calorie intake.*

*With calories from liquids, however, the body does not seem to compensate and the calories are 'added on' to what the person would have ingested anyway."*

In all, the major sources of added sugars in the typical US diet are as follows:

- Regular soft drinks (33 percent)
- Sugars and candy (16.1 percent)
- Cakes, cookies, and pies (12.9 percent)
- Fruit drinks (9.7 percent)

- Dairy desserts and milk products (ice cream, sweetened yogurt and sweetened milk) (8.6 percent)
- Other grain-based products (cinnamon toast and honey-nut waffles) (5.8 percent)

## Is There a Human Sugar Threshold?

Health conditions such as obesity, diabetes and metabolic syndrome have all been rising with rates of sugar consumption, leading many to assume that there is a dose-response relationship, i.e. the more sugar you consume, the greater your risk of health problems becomes.

The report noted an interesting alternative theory, which is that the linear dose-response model may be too simplistic. Instead, there may be a threshold level in the body for sugar below which it causes little or no harm... but once you pass it, health problems may emerge. Consuming *small* amounts of sugar may not be a problem, but consuming sugar *by the pound* certainly is.

*"While medical research is yet to prove conclusively that sugar is the leading cause of obesity, diabetes type II and metabolic syndrome, the balance of recent medical research studies are coalescing around this conclusion.*

*Advances in understanding the negative effects of refined carbohydrates on blood sugar regulation and cholesterol, and the metabolic impacts of fructose, are undermining the traditional view that all calories are the same,"* the report stated.

Indeed, the notion that "a calorie is a calorie" has been firmly debunked by science. Not all calories count equally. And the "calories in, calories out" hypothesis for maintaining weight has equally been shown to be incorrect. It is in fact FAR more important to look at the *source* of the calories than counting them if you're trying to lose weight.



In short, you do not get fat because you eat too many calories and don't exercise enough. You get fat because you eat the *wrong kind* of calories. At the end of the day, your consumption of carbohydrates, whether in the form of grains and sugars (especially fructose), will determine whether or not you're able to manage your weight and maintain optimal health. This is because these types of carbs (sugar, fructose and grains) affect the hormone insulin, which is a very potent fat regulator. Fats and proteins affect insulin to a far lesser degree.

## **Why Calories from Fructose May Be Especially Detrimental – The Fat Switch**

Fructose is in fact far worse than other carbs because the vast majority of it converts directly to FAT, both in your fatty tissues and in your liver. And this is why counting calories does not work... As long as you keep eating fructose and grains, you're programming your body to create and store fat.

Research by Dr. Richard Johnson, chief of the Division of Renal Diseases and Hypertension at the University of Colorado and author of *The Sugar Fix* and *The Fat Switch*, demonstrates that large portions of food and too little exercise are NOT solely responsible for why you are gaining weight. Rather it's fructose-containing sugars that cause obesity – not by calories, but by turning on your "fat switch," a powerful biological adaptation that causes cells to accumulate fat in anticipation of scarcity (or hibernation). According to Dr. Johnson, based on his decades of research:

*"Those of us who are obese eat more because of a faulty 'switch' and exercise less because of a low energy state. If you can learn how to control the specific 'switch' located in*

*the powerhouse of each of your cells – the mitochondria – you hold the key to fighting obesity."*

## **Where Else Is Sugar Hiding?**

You probably already know that table sugar, fruit juice and candy are high in sugar. But did you know that the following foods are also quite high in sugar also?

- Tomato sauce
- Granola bars
- Salad dressing
- Canned fruit
- Dried fruit

Manufacturers often label their products deceptively, claiming they are fat-free to distract you from a high sugar content, for instance. Check out the infographic here for even more shocking amounts of sugars in common foods.

## **Breaking Your Sugar Habit (Addiction)**

When you eat sugar it triggers the production of your brain's natural opioids – a key initiator of the addiction process. Your brain essentially becomes addicted to stimulating the release of its own opioids. The intensity of this effect is experienced on the same level as morphine or heroin, and preliminary research in animals indicates that the pharmacological effects of sugar include dopaminergic properties, as it has recently been shown to be more addictive than intravenous cocaine.

Researchers have speculated that the sweet receptors (two protein receptors located on your tongue), which evolved in ancestral times when the diet was very low in sugar, have

not adapted to the seemingly unlimited access to a cheap and omnipresent sugar supply in the modern diet. Therefore, the abnormally high stimulation of these receptors by our sugar-rich diets generates excessive reward signals in your brain, which have the potential to override normal self-control mechanisms, create tolerance and withdrawal symptoms, thus leading to addiction.

According to Dr. Robert Lustig, it is virtually impossible to exert enough cognitive willpower to overcome this 24/7 biochemical drive! That said, limiting or eliminating your sugar intake is the most effective way to break free from this disease-causing cycle. If you still want to use a sweetener occasionally, the sweet herb stevia makes a good, non-addictive sugar substitute. (It is important to avoid ALL artificial sweeteners, which can damage your health even more quickly than sugar.)

If you currently eat sugar, there's a good chance you're struggling with sugar addiction. So I highly recommend trying an energy psychology technique called Turbo Tapping, which has helped many "soda addicts" kick their sweet habit, and it should work for any type of sweet craving you may have. Remember that in order to minimize your sugar intake, you need to avoid most processed foods, as most contain added sugar. As mentioned, even savory foods like salad dressing, soup, and bread often contain sugar.

For optimal health, eat natural whole foods primarily, and limit your fructose consumption to below 25 grams per day, including that from fresh fruit. A couple of other tricks to try to kick your sugar cravings:

- **Exercise:** Anyone who exercises intensely on a regular basis will know that significant amounts of cardiovascular exercise is one of the best "cures" for food cravings. It always amazes me how my appetite, especially for sweets,

dramatically decreases after a good workout. I believe the mechanism is related to the dramatic reduction in insulin levels that occurs after exercise. Additionally, if you do eat sugars or fruits around the time of the exercise, your sugar levels will not rise as it will be metabolized for fuel.

- **Organic, black coffee:** Coffee is a potent opioid receptor antagonist, and contains compounds such as cafestrol – found plentifully in both caffeinated and decaffeinated coffee – which can bind to your opioid receptors, occupy them and essentially block your addiction to other opioid-releasing foods.

This may profoundly reduce the addictive power of other substances, such as sugar.

***Dr. Joseph Mercola** is the founder of [Mercola.com](http://Mercola.com). An osteopathic physician, best-selling author, and recipient of multiple awards in the field of natural health, his primary vision is to change the modern health paradigm by providing people with a valuable resource to help them take control of their health.*



Herbal and fruit teas sweetened with vanilla or cinnamon offer a safe and satisfying refreshment. (OlegKovalevichh/Shutterstock)

## HEALTHIER SUGAR SWAPS TO SATISFY YOUR CRAVING

*Avoid the risks of constant blood sugar spikes with these tasty alternatives*

**By Mohan Garikiparithi**

It's never easy to cut back on sugar. Even the strongest can struggle against the pull of sweetness.

But for people who seek to control blood sugar, succumbing to a sweet tooth can have devastating consequences.

Limiting sugar intake is all about finding effective ways to satisfy sweet cravings by eating as little sugar as possible.

Some of the easiest ways to cut back on sugar involve spices and naturally sweet foods to give your taste buds what they need without stimulating a spike in blood sugar.

The biggest sugar bombs in most people's diets come from sweetened beverages, desserts, and toppings like sauces and syrups. Here are some healthy and tasty ways to enjoy typically high-sugar snacks:

**Soft Drinks and Sports Drinks:** These items are very high in sugar and make up the bulk of the added sugars most Americans consume each day. Instead of these beverages, try making unsweetened fruit tea, sparkling water, or fruit/herb-infused filtered or sparkling water.

**Sweetened Coffee or Tea:** It's easy to scoop a spoonful or two of sugar into your coffee or tea. But to get a little more flavor, skip the sugar and opt for cinnamon, vanilla, coconut, or even pure cocoa powder.

**Desserts:** Many people like a little something sweet after a savory meal. Thankfully, there are plenty of ways to settle the tongue that don't involve a heaping serving of sugar.

Fresh fruit can easily fit into a dessert and offer plenty of high-fiber and healthy sweetness. Here are a few ideas:

- Cinnamon-sprinkled apples
- Grilled peaches
- Apple cinnamon porridge
- DIY ice cream
- Dipped fresh berries in dark chocolate

- Cocoa-sprinkled berries

**Syrups:** You can supplement sugary sauces and syrups with mashed fruits. You can also make a fruit compote with water.

These quick sugar alternatives can satisfy cravings when they hit. Remember that if you've been eating a lot of sugar, these options might not provide the sweetness you desire. Be patient. As your tastebuds adjust, these options will become much sweeter.

***Mohan Garikiparithi** holds a degree in medicine from Osmania University (University of Health Sciences). He practiced clinical medicine for over a decade. During a three-year communications program in Germany, he developed an interest in German medicine (homeopathy) and other alternative systems of medicine. This article was originally published on Bel Marra Health.*



A misunderstanding about diabetes, carbs, and sugar has some people dropping fruit from their diet, and that's a big mistake. (kitzcorner/Shutterstock)

## THE RIGHT WAY TO CUT CARBS AND SUGAR

*A doctor explains why you should keep fruit on the menu—  
even if you're diabetic*

**By Jennifer Rooke**

One of my patients—who had been struggling with obesity, uncontrolled diabetes, and the cost of her medications—agreed in June 2019 to adopt a more whole-food, plant-based diet.

Excited by the challenge, she did a remarkable job. She increased her fresh fruit and vegetable intake; stopped eating candy, cookies, and cakes; and cut down on foods from animal sources. Over six months, she lost 19 pounds



and her HbA1c—a measure of average blood sugar—dropped from 11.5 percent to 7.6 percent.

She was doing so well, I expected that her HbA1c would continue to drop, and she would be one of our plant-based successes who had reversed diabetes.

Her three-month follow-up visit in March 2020 was canceled because of the COVID-19 lockdowns. When I eventually saw her again in May 2021, she had regained some of the weight and her HbA1c had climbed to 10.4 percent. She said her diabetes doctor and a diabetes nurse educator had told her that she was eating too much “sugar” on the plant-based diet.

She had been advised to limit carbohydrates by cutting back on fruits and starchy vegetables and eating more fish and chicken. Sugar-free candy, cakes, cookies, and artificial sweeteners were encouraged. In the face of conflicting medical advice, she fell back on the conventional wisdom that “sugar” is bad and should be avoided whenever possible, especially if you have diabetes.

I’m a physician, board-certified in preventive medicine with a lifestyle medicine clinic at Morehouse Healthcare in Atlanta. This emerging medical specialty focuses on helping patients make healthy lifestyle behavior modifications. Patients who adopt whole-food plant-based diets increase carbohydrate intake and often see a reversal of chronic diseases including diabetes and hypertension. In my clinical experience, myths about “sugar” and carbohydrates are common among patients and health professionals.

## **Fruit Versus Sugar**

Your body runs on glucose. It's the simple sugar that cells use for energy.

Glucose is a molecular building block of carbohydrates, one of the three essential macronutrients. The other two macronutrients are fat and protein. Starches are long, branching chains of glucose.

Naturally occurring carbohydrates are found in nutrient-dense foods such as fruits, vegetables, whole grains, nuts, and seeds.

Humans have adapted to crave sweet tastes to get the nutrients needed to survive. A daily supply of vitamins, minerals, and fiber is needed because our bodies can't make them. The best source of these substances for our ancient ancestors was sweet, ripe, delicious fruit. In addition, fruits contain phytonutrients and antioxidants, chemicals produced only by plants. Phytonutrients such as ellagic acid in strawberries have cancer-fighting properties and promote heart health.

Refined sugars, on the other hand, are highly processed and stripped of all nutrients except calories. They're a concentrated form of carbohydrates. The food industry produces refined sugars in many forms. The most common are sucrose crystals, which you would recognize as table sugar, and high-fructose corn syrup, which is found in many processed foods and sweetened beverages.

If you continually satisfy your craving for sweetness with foods that contain refined sugar, rather than the nutrient-rich fruits your body was designed for, you're unlikely to get all the nutrients you need. Over time, this deficit can create a vicious cycle of overeating that leads to obesity and obesity-related health problems. Women who eat the most fruit tend to have lower rates of obesity.

# Sugar Toxicity

Refined sugars aren't directly toxic to cells, but they can combine with proteins and fats in food and in the bloodstream to produce toxic substances such as advanced glycation end products (AGEs). High blood glucose levels may produce glycated low-density lipoproteins. High levels of these and other glucose-related toxic substances are associated with an increased risk of a wide range of chronic health problems, including cardiovascular disease and diabetes.

The disease most commonly associated with sugar is Type 2 diabetes. A surprising number of people, including health professionals, incorrectly believe that eating sugar causes Type 2 diabetes. This myth leads to a focus on lowering blood sugar and “counting carbs” while ignoring the real cause: progressive loss of pancreatic beta cell function. At diagnosis, a patient may have lost between 40 percent and 60 percent of their beta cells, which are responsible for producing insulin.

Insulin is a hormone that controls how much glucose is in the bloodstream by blocking glucose production in the liver and driving it into fat and muscle cells. Loss of beta cell function means that not enough insulin gets produced, resulting in the high blood glucose levels characteristic of Type 2 diabetes.

Beta cells have low levels of antioxidants and are susceptible to attack by metabolic and dietary oxidized free radicals and AGEs. Antioxidants in fruit can protect beta cells. Researchers have found that eating whole fruit decreases the risk of Type 2 diabetes, with those who eat the most fruit having the lowest risk.

## Detoxing From Sugar

People interested in losing weight and improving health often ask if they should do a “sugar detox.” In my opinion, this is a waste of time, because it isn't possible to eliminate sugar from the body. For instance, if you ate only baked chicken breasts, your liver would convert protein to glucose in a process called gluconeogenesis.

Low-carb diets may lead to weight loss, but at the expense of health. Diets that significantly reduce carbohydrates are associated with nutrient deficiencies and a higher risk of death from any cause. Extended periods on low-carbohydrate ketogenic diets can cause the body to break down muscle and turn muscle protein into glucose. The lack of fiber can also cause constipation.

Eliminating foods sweetened with refined sugar is a worthy goal. But don't think of it as a “detox”—it should be a permanent lifestyle change. The safest way to go on a refined sugar “detox” is to increase your intake of nutrient-dense fruits and vegetables. Once you've eliminated refined sugar, you'll likely find that your taste buds have become more sensitive to—and appreciative of—the natural sweetness of fruit.

***Jennifer Rooke** is an assistant professor of community health and preventive medicine at the Morehouse School of Medicine. This article was first published on *The Conversation*.*



A low-carb diet high in healthy fats can benefit your waistline. (tetmc/iStock/Thinkstock)

## **LOW SUGAR DIETS ARE BETTER FOR YOUR GUT**

*A doctor explains why you should keep fruit on the menu—even if you're diabetic*

**By Gabe Mirkin**

A study from the University of Texas, Southwestern Medical Center, found that mice fed diets high in sugar developed severe colitis by increasing harmful colon bacteria and decreasing healthful colon bacteria. The researchers fed mice various dietary sugars such as glucose, fructose, and sucrose for seven days. The high-sugar diet damaged the gut's protective mucus layer to increase risk for persistent diarrhea, abdominal pain, and rectal bleeding. Harmful bacteria, such as Akkermansia, produce enzymes that break

down the mucus that lines and protects your colon from invasion by other bacteria, while the healthful bacteria such as lactobacillus and Bacteroides fragilis markedly increase this mucus protective layer.

When the researchers fed feces from the sugar-treated mice to mice that had not received the sugar diet, they also developed the same changes. This suggests that the intestinal damage was caused primarily by the increased growth of harmful bacteria caused by the high-sugar diet. I find this very disturbing because since the 1960s, the food industry has added high-fructose corn syrup and other sugars to all sorts of foods and drinks to make them taste better. During this period, the incidence of colitis, Crohn's disease, and irritable bowel disease have increased significantly. Many other studies show that a high sugar diet also increases risk for heart attacks and certain cancers by the same mechanism, and the chronic intestinal inflammation of Crohn's disease and ulcerative colitis is associated with increased risk for diabetes.

## **How Sugar Damages Your Intestines**

More than 100 trillion bacteria live in your colon, and these bacteria help to govern your immune system. The healthful bacteria are happy eating the food that reaches them in your colon, while the harmful bacteria are not happy with the food that you eat and instead try to invade the cells lining your colon. Your immune system tries to defend you by producing huge amounts of white blood cells and chemicals that work to destroy the invading bacteria by punching holes in their outer membranes and trying to kill and eat them. The damage caused by invading colon bacteria turns on your immune system to cause inflammation. The good and bad bacteria compete for space in your colon.

Sugar in foods and drinks is supposed to be absorbed in the upper intestinal tract, but taking in large amounts of sugar can cause some of the sugar to pass through the intestines unabsorbed. This sugar arrives in your colon where it can harm you by keeping healthful bacteria from growing in your colon and encouraging the overgrowth of harmful bacteria. Specifically, unabsorbed sugar in your colon can prevent the good bacteria from producing a key protein called “Roc” (regulator of colonization), which is required for growth of the healthful species *Bacteroides thetaiotaomicron* (*B. theta*) in your colon. Without Roc, the *B. theta* do not thrive and multiply, which allows harmful bacteria to replace them in your colon. The researchers demonstrated this by engineering a strain of *B. theta* in which sugar did not suppress Roc, and showed that these engineered bacteria were able to thrive in the colons of mice fed a high-sugar diet. If these results can be duplicated in humans, they will show how eating large amounts of sugar can affect the numbers of good and bad bacteria that grow in your colon.

## **My Recommendations**

The types of bacteria in your colon are determined primarily by your lifestyle and what you eat. Sugar is supposed to be absorbed in your intestines before it reaches your colon, but if you take in so much sugar that it overloads and reaches your colon, it will cause harmful bacteria to overgrow there. I recommend limiting all sources of added sugars in your diet, particularly all drinks with sugar in them.

Added sugars go by many names. Read the list of ingredients on any new food you buy and realize that you are getting sugar if you see any of these terms: anhydrous dextrose, brown sugar, cane juice, confectioner’s powdered sugar, corn syrup, corn syrup solids, crystal dextrose, dextrose, evaporated corn sweetener, fructose, fruit nectar, galactose, high-fructose corn syrup (HFCS), glucose, honey,

invert sugar, lactose, malt syrup, maltose, maple syrup, molasses, nectars, pancake syrup, raw sugar, sugar cane juice, sucrose, and so forth. Sugars extracted from fruits (such as grapes or apples) are no more healthful than any other source of sugar.

*Republished from DrMirkin.com*

*Sports medicine doctor, fitness guru and long-time radio host **Gabe Mirkin, M.D.** brings you news and tips for your healthful lifestyle. A practicing physician for more than 50 years and a radio talk show host for 25 years, Dr. Mirkin is a graduate of Harvard University and Baylor University College of Medicine. He is one of a very few doctors board-certified in four specialties: Sports Medicine, Allergy and Immunology, Pediatrics and Pediatric Immunology.*

## **Sources**

*Sci Transl Med, Oct 28, 2020;12(567):eaay6218*

*JAMA Intern Med, 2014;174(4):516-524*

*Clinical Gastroenterology and Hepatology, Aug 14, 2019*  
*PLoS One, Apr 13, 2017;12(4):e0176062*

*PNAS, Dec 17, 2018*

*Nature, March 8, 2018;555:210–215*





Children instinctively like sweet foods but the prevalence of added sugars can put them at risk. (muse studio/Shutterstock)

## **WHY KIDS SHOULDN'T EAT ADDED SUGAR BEFORE THEY TURN 2**

*Helping your children develop healthy eating habits starts when they are young, says nutritional epidemiologist*

**By Lisa Bodnar**

I remember a decade ago sitting in front of my 9-month-old daughter, who was in her high chair, and trying to spoon-feed her a pureed green vegetable. It didn't matter if it was peas, green beans, or something else, because the outcome was the same: I spooned it into her mouth, and it came right back out.

Compare this with feeding her applesauce, for which she would open her mouth after each bite and almost bounce in her chair with pleasure. I nearly danced along with her. This was easier! Let's just keep doing this! But as a nutritional epidemiologist, I knew that solely satisfying her desire for sweetness wouldn't benefit her health in the long run.

At the University of Pittsburgh Graduate School of Public Health, I study the consequences of poor nutrition on the health of mothers and children. I recently served on a National Academies of Science, Engineering and Medicine committee that summarized guidelines on feeding infants and children up to age 2. As part of the committee, I helped to write a report about feeding young children added sugars and sugar-sweetened beverages. And—spoiler alert!—experts advise no added sugar for infants and little to no added sugar for children 12 to 24 months old.

Added sugars are sugars and syrups that are added to foods during processing or preparation or later at the table. They can be natural sugars, such as honey, or artificial sweeteners, such as high-fructose corn syrup. Yogurt, baby snacks, fruit drinks, desserts, and sweet bakery products are the most common sources of added sugars in the diets of infants and toddlers.

Unlike sugars that naturally occur in fruits, dairy products, vegetables and bread and other grains, natural sugars and artificial sweeteners added to foods are the ones we should eliminate or limit in the diets of young children. But why?

From birth to 24 months, proper growth and development require calories and nutrients. Foods and beverages high in added sugars provide a lot of calories—referred to as “empty calories”—but not a lot of nutrients. Offering foods with added sugars to children from birth to 24 months is problematic because they eat relatively small amounts of

food at this stage. To ensure healthy nutrition, the food they eat must be high in nutrients. If young kids fill up on high-calorie, sugar-laden foods or drinks, it leaves less room for nutritious foods.

Children who are fed diets high in added sugars are more likely than children with lower sugar intakes to have a number of negative health consequences as they develop, including childhood obesity, cardiovascular disease, and tooth decay.

Diet from birth to 24 months also shapes long-term food preferences. People are hard-wired to crave sugar because it built up fat stores and kept our ancestors from starving when food was scarce. But kids can learn to accept bitter foods, such as vegetables, that are high in nutrients if they are offered them repeatedly in early childhood. Setting healthy diet patterns early in life can help children maintain a healthy weight and avoid chronic disease.

Considering that about 85 percent of infants and toddlers in the United States consume added sugar daily, here are some practical tips for parents and caregivers of babies and young children for eliminating or limiting their sugar consumption:

## **1. Look on the Food Label**

Check the amount of added sugars on the nutrition facts label on foods and drinks before you buy them. Labels include the amount of “Total Sugars” and, below that, the amount of “Added Sugars.” One eight-ounce serving of chocolate milk contains 15 grams of added sugar, for example, while regular cow’s milk has no added sugar.

## **2. Switch to Healthier Drinks**

Swap out sugary drinks with water or milk (breast milk, formula, or other milk, depending on the child's age).

Eliminate or limit sugary beverages such as regular soda, flavored milks, Kool-Aid, fruit drinks, juice with less than 100 percent fruit, sports drinks, energy drinks, and sweetened water or tea.

## **3. Ditch Sugar During Food Prep**

Prepare foods for your young child at home without adding sugar.

## **4. Know the Different Names for Sugar**

Some packaged foods literally have “sweetened” in their name, such as sweetened applesauces or sweetened peaches. But sugar isn't always so easy to spot. Often foods we don't expect to contain added sugars do, such as yogurts. Added sugars go by many different names, such as high-fructose corn syrup, fruit juice concentrates, cane sugar, corn sweetener, lactose, glucose, sucrose, and maple syrup. Always check the ingredient list.

## **5. Watch for Sugar Lurking in Packaged or Store-Made Foods**

If you offer your child packaged or store-prepared foods and beverages, such as dry cereal, fruit pouches, or jars of baby food, they should contain little to no added sugars.

## **6. Try Again and Often**

Offer children bitter foods such as vegetables over and over. Young children need to be exposed to foods 30 or so times before they learn to like them.

As a registered dietitian and licensed nutritionist who has counseled families—and as a mother to three children—I have learned that reducing added sugar isn't as easy as we professionals often make it seem. In fact, it may not be feasible for many people because of limited access to or the higher price of healthy foods. Some people have pressing needs that may take priority over a healthful diet. And fast-food restaurants and convenience stores seem to be everywhere you look.

So don't try to make all of these changes with your child at once. Choose one that seems most feasible, and try that first. Gradually add another. Remember that falling off a healthy habit is normal. The important thing is getting back on the horse and trying again.

***Lisa Bodnar** is a professor of epidemiology at the University of Pittsburgh Health Sciences. This article was first published on *The Conversation*.*



(Martin Novak/Shutterstock)

## **WHY SUGAR IS SO MUCH WORSE FOR TEENAGERS' BRAINS**

**By Amy Reichelt**

The rate of obesity is increasing worldwide and the increase has been particularly dramatic in young people, who are the greatest consumers of high-energy, sugary, and fat-laden "junk" foods and sweetened drinks.

The heightened metabolism and rapid growth experienced during puberty can protect against obesity. However, easy access to cheap junk foods and increasingly sedentary lifestyles may outweigh the effects of growth spurts.

Diets high in refined sugar and saturated fat not only contribute to weight gain and associated health issues, but also have a profoundly detrimental impact on brain function.

It is known that excessive consumption of junk foods can damage areas of the brain essential for learning and memory processes. Neurons in brain regions including the hippocampus, which encodes memories, no longer work efficiently, leading to poorer learning.

This is of great concern, as adolescence is a critical formative period for learning about the world. Adolescence is also a time of newly found independence, including choosing one's own food.

Recent research conducted on rodents has shown the adolescent brain is at an increased risk of developing diet-induced cognitive dysfunction. Adolescent—but not adult—mice develop memory problems after consuming high-fat diets.

Teenage rats that drank sugary beverages were less able to remember a specific location leading to an escape hatch. This was compared to adult rats that drank sugary beverages and teenage rats that had low-sugar diets.

The brains of the adolescent sugar-diet rats also showed increased levels of inflammation in the hippocampus, which disrupt learning and memory function. Inflammation in the brain can contribute to cognitive decline and dementia.

The negative effects of obesity on the brain have been observed in young people, too. Obese adolescents performed worse at math, spelling, and mental flexibility than healthy-weight adolescents. Structural brain scans revealed that obese teenagers had smaller hippocampi. This provides evidence that excessive body fat impacts the brain's learning center.

# **The Teenage Brain Is a Work in Progress**

The teenage brain undergoes major developmental changes in terms of structure and function. Adolescence is a period of increased neuroplasticity due to the dramatic changes in connectivity within brain regions.

Brain-imaging studies show that the prefrontal cortex doesn't fully mature until the early 20s. A major role of the prefrontal cortex is performing executive functions. This term encapsulates behavioral control, attention, and decision-making.

Poor regulation of the prefrontal cortex during adolescence can explain the increased risk taking behaviors in teenagers, including dangerous driving, drug use and binge drinking.

Educational efforts to provide teens with information about unsafe behaviors tends to fall on deaf ears. The prefrontal cortex helps us to resist performing behaviors triggered by events in the environment. Resisting these behaviors in the face of immediate rewards can be difficult, particularly for teenagers.

## **Teenage Brains Love Rewards**

The risky behaviors teenagers engage in are often immediately rewarding. The brain's reward system releases the neurotransmitter dopamine when stimulated by pleasurable events, increasing the drive to carry out these activities.

Teenagers are particularly drawn to rewards, including eating tasty foods that are high in fat and sugar. The adolescent reward system is sensitive to stimulation and may be permanently altered by overactivation during this period.



Combined with the reduced ability to resist rewarding behaviors, it is not surprising that teenagers prefer to eat foods that are easy to obtain and immediately gratifying, even in the face of health advice to the contrary.

Changes in the brain caused by overconsumption of sugary foods during adolescence can manifest in later life as difficulties in experiencing reward. Research has shown male rats that drank sugar water during adolescence showed reduced motivation and enjoyment of rewards when they were adults.

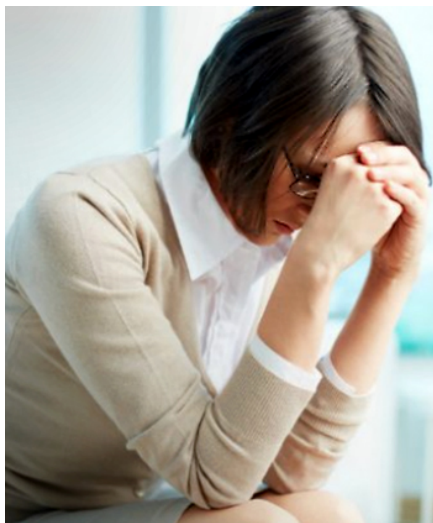
These behaviors are core features of mood disorders including depression. Importantly, this shows that how we eat during adolescence can impact brain function as adults, leading to long-lasting changes in food preferences and in learning about rewards.

## **Teenage Brains Are More Plastic**

Excessive consumption of junk foods during adolescence could derail normal brain maturation processes. This may alter normal development trajectories, leading to enduring behavioral predispositions—in this case, the habit of consuming fatty and sugar foods, leading to obesity.

Fortunately, the increased plasticity of the adolescent brain means that young people may be more responsive to change. Opportunities to identify and intervene in high-risk youths may avert destructive behavioral spirals that may originate in adolescence. This can encourage lifelong healthy habits.

***Amy Reichelt*** is a lecturer at RMIT University in Australia. This article was originally published on *The Conversation*.



(Illustration/Pixabay/Shutterstock)

# 10 THINGS THAT HAPPEN TO YOUR BODY WHEN YOU EAT TOO MUCH SUGAR—IT'S VERY SIMILAR TO COCAINE ADDICTION

**By Bill Pan**

Sugar is delicious, and Americans are eating a LOT of it. According to the U.S. Department of Agriculture, the average American consumes about 130 pounds of sugar a year. But sugar, especially in excessive amounts, does more harm than good to your health in many ways, ranging from adding wrinkles to your face to diabetes.

So, how do you know if you're eating too much sugar? Here are 10 red flags that your body may show you that it's time to keep your craving of sweets in check:

# 1. Constant Hunger

If you find it hard to quit sugar, you're not alone. The unstoppable desire to consume sugar works in a way similar to drug addiction. When you eat sugar, your brain rewards you with pleasure, but in order to feel that pleasure again, you have to keep eating more sugar. The more you eat, the more you crave, and the cycle continues.

Fortunately, you can beat sugar cravings and unhealthy snacking by eating foods that fill you up and keep you full for a long time. Bananas, beans and oats are some of the most filling foods, whereas ice cream, cookies, and potato chips leave you desiring more.

# 2. Foods Don't Taste as Sweet as Before

Eating too much sugar bombards your taste buds, reducing their sensitivity to sweetness. Once the taste buds get used to sugar, sugary foods won't seem sweet enough anymore. Hence, you will start craving for even sweeter foods over time. Fortunately, it can be reversed by cutting sugar intake. It's going to be difficult in the beginning, but once you succeed, you will also lower the tolerance level and be satisfied with lower sugar amounts. After a certain period of time, some things will become just too sweet for you.

# 3. More Lines and Wrinkles

Aging is not the only way you can get wrinkles, deep lines, and sagging skin. They can also be byproducts of eating too much sugar. After sugar is ingested, it goes through a process known as glycation, in which excess sugar molecules attach themselves to collagen fibers and ultimately cause them to lose their strength and flexibility. As a result, your skin becomes less elastic and more vulnerable to sun damage, fine lines, and wrinkles. Sugar also links

collagen molecules together, which makes it more difficult for them to be repaired after being damaged.

## **4. Constant Tiredness**

Ever wonder why you want to take an afternoon nap after chowing down on something indulgent? If you need a cup of coffee after eating a sugary meal or start to fall asleep, it could be due to wavering blood sugar levels. Eating lots of sugar reduces the activity of what is called orexin, a brain chemical that keeps you feeling awake. With a high blood sugar level, your body will also have trouble storing and absorbing glucose properly, and body cells won't receive the energy they need. As a result, you're going to feel pretty sleepy.

## **5. Weight Gain**

It doesn't sound surprising that too much sugar intake adds pounds to the waistline. Sugar is free of fiber and protein, so it does not grant a feeling of fullness but leads to cravings for more sugar. The more sugar we consume, the more calories we ingest. Sugar triggers the release of insulin which carries sugar to the organs in order to be used for energy. Hence, excessive intake of sugar sends a message to the body to produce more insulin, which overwhelms the pancreas and causes insulin resistance over time. Insulin resistance is linked to weight gain, obesity, as well as diabetes.

## **6. Easily Getting Thirsty**

Ever wonder why ice cream makes you thirsty after eating it? Soon after we eat ice cream, or high-sugar foods in general, particles of sugar are absorbed into the bloodstreams. Ice cream has salts, sugars, fats, amino acids, and more for your body to absorb into the blood stream. As your blood becomes more saturated, your body will send a message to the brain, telling it that additional fluids are needed. So you

become thirsty. Of course, you ought to drink at this time, but it's better if you choose water or tea without sugar.

## **7. Frequent Trips to the Bathroom**

When there is excess sugar in the blood, the kidneys work harder to remove it. If the kidneys cannot filter all the sugar, the body will work to regulate sugar levels by diluting the blood with fluid taken from bodily tissues. It's then excreted as urine. This leads to dehydration and thirst, as well as more bathroom calls. As water is consumed to quench thirst, urination occurs more frequently. Drinking more water is good, as it helps the kidneys remove the sugar.

## **8. You Can't Concentrate**

Eating too much sugar can actually have a negative biological impact on your mind and emotions. Sugar forms free radicals in the brain's membrane, compromising the nerve cells' ability to communicate with each other. This usually creates a brain fog or mind blanking.

Another way sugar affects focus is through its addictive qualities. Yes, the previously mentioned rewarding mechanism is to blame again. When we taste sugar, the reward chemicals spike in the brain and reinforce the need for more sugar. When you're battling an addiction-fueled craving, your train of thought is disrupted, and you find it hard to devote full mental energy into tasks at hand.

## **9. Mood Swings**

Sugar leads to highs and lows. People who eat too much sugar are easily caught into a vicious cycle of binge eating, dopamine spikes, a powerful emotional crash, and then more cravings and withdrawal. As a result, we have shorter tempers, lower patience, and even feelings of depression. What's worse, sugar can also weaken your body's ability to

respond to stress, which can trigger your anxiety and prevent you from dealing with the root cause of it.

## **10. Muscle and Joint Pain**

Pain in the joints is no joke. High sugar intake can contribute to joint pain and stiffness experienced with aging through the process of glycation. It happens when sugar bonds with proteins to form compounds called advanced glycation end products (AGE). These compounds damage cells in the body by accelerating oxidation and messing with normal cell behavior. AGEs are believed to play a major role in aging as well as contributing to many age-related chronic diseases. AGEs building up in joint tissues cause changes in articular cartilage, making the cartilage more vulnerable to damage and development of osteoarthritis.

***Bill Pan** is a reporter for The Epoch Times.*



(Shutterstock)

## WHAT DO YOU DO WHEN YOU'RE CRAVING SUGAR?

**By Janice Lipman**

We've all had those days when you're craving sugar so badly that nothing seems to help. The usual distractions are just not working, and you really want a chocolate brownie or ice cream. Here are some recipes garnered from our team of Health Coaches to help you overcome sugar cravings and make a healthier choice:

1. Bake a sweet potato and serve with a pat of grass-fed butter or coconut oil and a sprinkle of cinnamon.
2. Roast a selection of root vegetables such as fennel, carrots, onions, parsnips, and sweet potatoes. Roasting

brings out their sweetness. You can eat as is or add to a leafy green salad.

3. Brew yourself a cup of fruity herbal tea, which is naturally sweet. Drink hot or allow to chill and serve over ice or once cool, pour into ice pop molds and freeze for a healthy iced treat.

4. Whip up a Be Well protein smoothie, (my favorite is the Chocolate Whey) add a small slice of avocado, (these healthy fats will keep you feeling satisfied), 1/2 cup organic blueberries, 6- 8 oz unsweetened coconut milk, a few ice cubes and blend till creamy.

5. Chilled coconut water is slightly sweet and often does the job. It also makes a delicious homemade ice pop.

6. Chop up a small apple or pear into small dice and sauté in grass-fed butter or coconut oil till soft. Sprinkle with cinnamon and enjoy.

7. One of our all time favorites is a chia seed pudding. Chill a can of full cream coconut milk overnight in the fridge. To make the pudding, scoop off just the “cream” that is on top and place in a blender, add 2 TBS chia seeds, 3 TBS unsweetened cocoa and stevia to taste. Blend till smooth and thick. Keeps in the fridge for about 2 days.

8. Not your mother’s almond butter on a celery stick: Mix together 4 TBS almond butter, 1 Tablespoon coconut oil, 1/2 teaspoon maple syrup, salt and cinnamon to taste. Spread on celery sticks.

9. Slice an apple and spread with coconut butter and cinnamon.

10. A handful of cocoa nibs can also be nice to nibble on.



*This article was originally published  
on [www.drfranklipman.com](http://www.drfranklipman.com) Read the original [here](#).*

© 2022 The Epoch Times