

## Give Up Soda

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### STORY AT-A-GLANCE

- › Giving up soda – both sugar-sweetened and diet – is one of the most fundamental steps you can take to improve your health. You may have made that choice yourself long ago, but it is one that is important to others, too
- › Research suggests sugary beverages are to blame for about 184,000 deaths worldwide each year, including 133,000 diabetes deaths, 45,000 heart disease deaths and 6,450 cancer deaths
- › Men who drank an average of one can of soda per day had a 20% higher risk of having a heart attack or dying from a heart attack than men who rarely consumed soda

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One of the most straightforward steps you can take to improve your health is to give up soda, and with that I'm talking about both regular and diet varieties. The problem with soda stems from its high sugar content – particularly the liquid high-fructose corn syrup (HFCS) variety – and, in the case of diet, its artificial sweetener content, among other issues.

Research suggests sugary beverages are to blame for about 184,000 deaths worldwide each year, including 133,000 Type 2 diabetes deaths, 45,000 heart disease deaths and 6,450 cancer deaths.<sup>1</sup> Even drinking one or more 250 ml (about 8 ounces) servings of soda per day raises your risk of Type 2 diabetes by 18%.<sup>2</sup>

Soda and other sugar-sweetened beverages (SSBs) are a leading source of added sugar in the U.S. diet, with 6 in 10 youths and 5 in 10 adults drinking at least one such beverage on any given day.<sup>3</sup> In 2022, it's estimated that the average American adult's daily diet includes 341.1 calories from sugary drinks alone, while children consume 312.6 beverage calories every day.<sup>4</sup>

Even the U.S. Centers for Disease Control and Prevention (CDC) states, "Frequently drinking sugar-sweetened beverages is associated with weight gain/obesity, Type 2 diabetes, heart disease, kidney diseases, nonalcoholic liver disease, tooth decay and cavities, and gout, a type of arthritis."<sup>5</sup>

However, the CDC only suggests that "limiting the amount of SSB intake can help individuals maintain a healthy weight and have a healthy diet," stopping far short of advising Americans to ditch these unhealthy drinks to avoid chronic disease.

This isn't entirely surprising, considering CDC director Dr. Brenda Fitzgerald received \$1 million in funding from Coca-Cola<sup>6</sup> to combat childhood obesity during her six-year stint as commissioner of Georgia's public health department and has a history of promoting the soda industry's "alternative facts."

Her Coke-funded anti-obesity campaign focused on exercise. None of the recommendations involved cutting down on soda and junk food, yet research shows exercise cannot counteract the ill effects of a high-sugar (i.e., high soda) diet.

## **Health Risks of Drinking Soda**

Downing cans of sugary soda isn't only a matter of consuming "empty" calories that may lead to weight gain, as some public health organizations would have you believe. You can't simply undo the effects of soda consumption by cutting back on calories elsewhere in your diet, as the sugar itself wreaks havoc on your body and your gut flora.

Researchers have known since the 1960s that your body metabolizes different types of carbohydrates, like glucose and fructose, in different ways, causing very different

hormonal and physiological responses that absolutely may influence fat accumulation and metabolism.<sup>7</sup>

One 12-ounce can of regular soda has about 33 grams of sugar (8 1/4 teaspoons) and 36 grams of net carbohydrates, which is more than your body can safely handle, especially at one sitting.

The World Health Organization recommended that sugar should make up less than 10% of your total daily energy intake, with additional benefits to be had if you reduce it to below 5% (which amounts to about 25 grams, or 6 teaspoons of sugar a day).<sup>8</sup> For optimal health, I recommend limiting your intake of net carbs to under 40 to 50 grams per day, which is virtually impossible to do if you drink soda.

Gary Taubes, cofounder of the Nutrition Science Initiative and author of "The Case Against Sugar," expertly documents sugar's link to chronic diseases and much more, including whether sugar should more aptly be described as a drug instead of a food.

It doesn't cause the immediate symptoms of intoxication, like dizziness, staggering, slurring of speech or euphoria, associated with other "drugs," yet perhaps this only allowed its long-term medical consequences to go "unmasked and unanswered."

In 2019, an intriguing study<sup>9</sup> showed that "Excessive sucrose consumption elicits addiction-like craving that may underpin the obesity epidemic."

In this animal study, researchers found that sugar consumption triggered the release of natural opioids and dopamine in the animals' brains, thus lowering the availability of those receptors. Reduced receptor availability is a sign of overstimulation, because when the brain gets overstimulated, it downregulates these receptors to prevent damage.

The drawback of this protective mechanism is that you now need a higher dose of the substance to get the same pleasure response, and this is a key mechanism by which addiction develops. While other researchers question whether sugar "addiction" is a true addiction,<sup>10</sup> most of us today will never know if we suffer even subtle withdrawal

symptoms from sugar like you would from a drug, because we'll never go long enough without it to find out, Taubes wrote.

He added that sugar has likely killed more people than tobacco and that tobacco wouldn't have killed as many people as it did without sugar.<sup>11</sup> Harvard School of Public Health further compiled a list of additional studies demonstrating the link between soda and chronic disease:<sup>12</sup>

- Men who drank an average of one can of soda per day had a 20% higher risk of having a heart attack or dying from a heart attack than men who rarely consumed soda<sup>13</sup>
- Women who consumed a can of soda daily over a 22-year study had a 75% higher risk of gout than women who rarely consumed soda<sup>14</sup>
- Reducing soda consumption can reduce the prevalence of obesity and obesity-related diseases like Type 2 diabetes<sup>15</sup>

## Why Diet Soda Is Not a 'Healthier' Alternative

The idea that diet soda is a healthier option than regular soda is one of the biggest prevailing myths in the nutrition realm today. If you're one of the nearly half of U.S. adults who consume artificial sweeteners, mostly in the form of diet soda, daily (even one-quarter of kids do so as well),<sup>16</sup> it's important you're let in on the truth: Drinking diet soda puts your health at risk of the following conditions:

- **Stroke and Dementia** – Drinking one artificially sweetened beverage a day may increase your risk of stroke and dementia by threefold compared to drinking less than one a week.<sup>17</sup> Even drinking one to six artificially sweetened beverages a week was linked to 2.6 greater risk of stroke compared to not drinking any. A 2012 study similarly found that people who drank diet soft drinks daily were 43% more likely to have suffered a vascular event, including a stroke.<sup>18</sup>

This significant association persisted even after controlling for other factors that could increase the risk, such as smoking, physical activity levels, alcohol

consumption, diabetes, heart disease, dietary factors and more. As for the dementia link, this one is new and no one knows for sure how diet drinks may affect your brain.

Forbes compiled some plausible theories, however, including perhaps via the disruption artificial sweeteners pose to your gut health via the corresponding gut-brain axis. Alternatively:<sup>19</sup>

*"Diet sodas are designed to trick the brain into thinking it's getting an extra dose of glucose (the brain's fuel), but eventually the trick is on us because the brain adapts to not receiving the added glucose by overcompensating in other ways (leading to a variety of effects still under investigation)."*

- **Heart Attack** — Research that included nearly 60,000 postmenopausal women who were followed for about 10 years found that drinking just two diet drinks a day can dramatically increase your risk of an early death from heart disease.<sup>20</sup>
- **Metabolic Syndrome and Type 2 Diabetes** — People with Type 2 diabetes are often advised to consume artificial sweeteners in lieu of sugar, but research shows consumption of diet soda at least daily is associated with a 36% greater relative risk of metabolic syndrome and a 67% greater relative risk of Type 2 diabetes compared with not consuming any.<sup>21</sup>
- **Depression** — According to a study done in 2013 that included nearly 264,000 U.S. adults over the age of 50, those who drank more than four cans or glasses of diet soda or other artificially sweetened beverages daily had a nearly 30% higher risk of depression compared to those who did not consume diet drinks.<sup>22</sup>
- **Weight Gain** — In April 2017, research presented at ENDO 2017, the Endocrine Society's 99th annual meeting in Orlando, Florida, once again found that artificial sweeteners promote metabolic dysfunction that may promote the accumulation of fat.<sup>23</sup> A study on mice also revealed that animals fed aspartame-laced drinking water gained weight and developed symptoms of metabolic syndrome while mice not fed the artificial sweetener did not.

Further, the researchers revealed that phenylalanine, an aspartame breakdown product, blocks the activity of a gut enzyme called alkaline phosphatase (IAP). In a previous study, IAP was found to prevent the development of metabolic syndrome (and reduce symptoms in those with the condition) when fed to mice.<sup>24</sup> Aspartame likely promotes obesity by interfering with IAP activity.

## **Industry Ties Perpetuate Flawed 'Energy Balance' Theory**

Despite soda's strong links to disease, public health officials have been slow to place blame on the industry and instead continue to perpetuate the "energy balance theory," which suggests weight gain is simply a matter of consuming more calories than you burn off, and increasing exercise is therefore the solution to lowering rates of obesity (in lieu of eliminating soda).

The soda industry has been instrumental in shifting the blame away from soda and toward virtually any other scapegoat. In 2015, for instance, Coca-Cola Co. was outed for secretly funding and supporting the Global Energy Balance Network, a nonprofit front group that promoted exercise as the solution to obesity while significantly downplaying the role of diet and sugary beverages in the weight loss equation.<sup>25</sup>

Public health authorities accused the group of using tobacco industry tactics to raise doubts about the health hazards of soda, and a letter signed by more than three dozen scientists said the group was spreading "scientific nonsense."<sup>26</sup> Yet, the soda industry maintains many close ties with organizations that continue to promote the energy balance myth (and directly funds such organizations).<sup>27</sup> Among them:

- **The Academy of Nutrition and Dietetics (AND)**, which was funded by Coca-Cola until 2015. They also founded a program called "Energy Balance 4 Kids With Play" in partnership with the Healthy Weight Commitment Foundation (HWCF), "an industry organization representing Coca-Cola, PepsiCo, Nestle, General Mills and other distributors of sugar-sweetened products."<sup>28</sup>

- **The International Food Information Council**, which has received funds from the food, beverage and agriculture industry, including Coca-Cola and PepsiCo, promotes the idea that "when it comes to weight management or weight loss, it's the total calories that matters most."<sup>29</sup>
- **The National Institutes of Health "We Can!" Campaign**. Coca-Cola has donated millions to the NIH Foundation, and the campaign advised drinking soda only "once in a while" and suggested balancing out days when kids eat lots of high-sugar foods/drinks with more physical activity.
- **The American College of Sports Medicine**, which has received funds from Coca-Cola, suggests that while water should be your first choice of beverage, "there is no harm in drinking juice or even soda in moderation."
- **The U.S. Centers for Disease Control and Prevention**, which also received funding from Coca-Cola via the CDC Foundation, also promotes "energy balance" and the idea that "Healthy eating is all about balance. You can enjoy your favorite foods even if they are high in calories, fat or added sugars. The key is eating them only once in a while ..."<sup>30</sup>

## Try Hibiscus Tea Instead

If the idea of swapping your daily soda with water sounds less than enticing, consider swapping it with tea instead. This gives you the best of both worlds: flavor and a healthy boost to your diet, as high-quality tea can have quite a few health benefits. Hibiscus tea is one such option. It has a pleasingly sharp flavor, similar to the tartness of cranberry, and you can find it in liquid extract form that allows you to add a few pumps to your glass of water.

Unlike soda that will overload you with sugar and/or artificial sweeteners, hibiscus tea is high in vitamin C, minerals and antioxidants, and studies suggest it may improve blood pressure, help prevent metabolic syndrome, protect your liver and even provide anticancer effects.<sup>31</sup> It's the opposite of drinking soda in terms of what it does to your

health! It's not only hibiscus tea that offers benefits, of course. If you prefer green or white tea, these are healthy choices as well.

Studies show green tea consumption improves brain function, as well as staves off cognitive disorders such as Alzheimer's, helps prevent dental cavities, fights inflammatory disease such as arthritis and even combats several cancers, much like hibiscus tea. The idea is that by making this one healthy switch – swapping your daily soda for a daily cup of tea instead – you can significantly lower your risk of chronic disease and obesity.

In addition, if a soda craving strikes, fit in a quick workout, drink a cup of organic black coffee or consume something sour (like fermented vegetables or lemon water). All can help you to kick your sugar cravings to the curb.

The Emotional Freedom Techniques (EFT) is another great option, which has been shown to significantly reduce cravings while increasing peoples' ability to show restraint – even after six months.<sup>32</sup> A video demonstration is below, but here is the basic approach, which you can start using right now:

- Identify a food or beverage you crave by visualizing it or imagining you're eating/drinking it
- Tap on your activated thoughts (for example, "I want this," "I have to have it")
- Tap on each of the specific sensations or thoughts you have about the food (sweetness, saltiness, creaminess, crunchiness, how it feels in your mouth, how it smells)
- Scan your body for any tension, and tap on that too

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