



BeeWell

Not-So-Sweet

THE ULTIMATE
GUIDE TO SUGAR
ADDICTION





I'm Sami Bee, or Coach Bee, and I'm a certified health and wellness coach and meditation coach who works with people to find optimal nutrition, drop weight, and relieve stress so that they can live the best life possible!

This free guide on sugar addiction will help set you on a journey to better health, more energy, and maybe even help you drop a few pounds as you learn the dangers of sugar, and learn to focus on high nutrient foods that will leave you satisfied, energized, and feeling fabulous! Be sure to check out my blog, and upcoming programs to continue with your health and wellness goals at

BeeWell.com

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Your Ultimate Guide to Sugar

Introduction

Few would argue that added sugar intake in most industrialized countries is a significant problem. Over a year's time, this equates to almost 60 pounds of added sugar consumed. Not surprisingly, due to its low cost, sugar is used in many different ways and forms in many popular (and not so popular) food products.

- Today, the average adult living in the United States consumes about 22 teaspoons (or ~88 grams) of added sugar daily, including foods containing 'hidden' sources of sugar and believe to be 'healthy'.
- In the US, added sugars account for up to 17% of the total calorie intake of adults and up to 14% for children. That means, if a 2000 calorie diet is consumed, an adult would be consuming 340 calories in added sugar (alone); that's about 85 grams of sugar per day!
 - Perspective: Just one, 16 oz. can of soda contains 52 grams of sugar, which equates to more than 10% of your daily calorie intake (based on a 2000 calorie diet).
- It is well-established that excessive added sugar consumption negatively impacts the body and increases the risk for many chronic diseases including cardiovascular disease, diabetes, obesity, and cancer. Additionally, excess sugar intake has been associated with microbial alterations to the digestive system which, in turn, interferes with the gut's microbiome and inflammatory responses.
- It is estimated that high fructose corn syrup (HFCS) alone accounts for ~40% of all caloric sweeteners used in the United States.

what is sugar?

monosaccharides | *glucose & fructose*

Glucose is a monosaccharide that often combines with and creates other forms of sugar (e.g. sucrose, lactose). The body manufactures glucose when blood levels get too low.

Glucose supply can be routed to cells throughout the body and used for energy immediately, or it can be condensed and stored in the liver and muscle as glycogen for later use

Food sources:

- Fruit and fruit juice (especially bananas, oranges, grapes, and dates)
- Beets
- Carrots
- Honey



Fructose is the type of natural sugar found in smaller amounts in real foods such as fruit and vegetables. It is generally not something to worry too much about as part of a regular diet. Fructose is metabolized differently than when it is ingested in higher amounts from processed foods.

Fructose raises insulin less than glucose; however, fructose results in higher ghrelin levels, which boost rather than suppress appetite like insulin does. Fructose is processed almost solely by the liver.

Food sources:

- Fruit and fruit juice (especially mangoes, cherries, pears, and watermelon)
- Asparagus
- Artichokes
- Sugar snap peas
- Honey
- Agave nectar



what is sugar?

disaccharides | *sucrose, lactose, & maltose*

Sucrose is a disaccharide sugar comprised of fructose and glucose in a 1:1 ratio. Sucrose is also known as table sugar. Although it is found in fruit and other plants, sugar cane and sugar beets are the most popular sources for commercial production.

As a disaccharide, it is too large for the body to absorb. In the digestive tract, sucrose is broken down into glucose and fructose, which are absorbed separately into the bloodstream.

Food sources:

- Fruits
- Table sugar
- Molasses
- Coconut sugar
- Honey
- Maple syrup
- Any foods or beverages that contain added sucrose

Lactose contains one molecule of glucose and one molecule of galactose. It is the main sugar found in dairy foods. Similar to sucrose, lactose is broken down into monosaccharide components so they can be absorbed into the bloodstream.

Food sources:

- Milk
- Buttermilk
- Yogurt
- Ricotta cheese
- Cottage cheese
- Sour cream
- Whey

what is sugar?

disaccharides | *sucrose, lactose, & maltose*

Maltose is a disaccharide that contains two glucose molecules.

Maltose results from the breakdown of starch (a long chain of glucose molecules) in the digestive tract.

Although it is significantly less sweet (about half of glucose's sweetness), it is metabolized in the same way.

Food sources:

- Potatoes
- Sweet potatoes
- Corn
- Bread
- Pasta
- Beer
- Some breakfast cereals
- Processed foods



difference: *added sugar VS natural sugar*

According to the Department of Agriculture, "Added sugars are sugars and syrups that are added to foods or beverages when they are processed or prepared. This does not include naturally occurring sugars such as those in milk and fruits."



sugar side effects

health risks

SIDE EFFECTS & HEALTH RISKS | *associated with sugar intake*

Associations between increased risk of diabetes, heart disease, obesity, cancer, high blood pressure, cognitive disorders (e.g. dementia, Alzheimer's, etc.) and other conditions entailing impaired immune function and added sugar intake have been established.

o Brain

- o Excessive sugar consumption has the power to change the brain's reward system by releasing dopamine and other endorphins.
- o Studies have discovered that added sugar (glucose and fructose) may influence eating behaviors through activating.
- o High-sugar diets can lead to impaired memory and have been linked to an increased risk of dementia.

o Pancreas/Endocrine system

- o When we ingest sugar, our blood glucose spikes and alerts our pancreas to produce the hormone insulin. Insulin then tells our cells that it's time to 'get energy' from the ingested sugar.
- o Regular sugar intake can interfere with your endocrine function. Over time, this constant intake of added sugar and the 'roller coaster' track can build insulin resistance. Insulin resistance is when the body and liver begins to store sugar as fat.

o Liver

- o Excessive added sugar intake over time can increase the risk for non-alcoholic fatty liver disease (NAFLD). Left untreated, liver failure or cancer may result.

Sugar

A watermelon and a medical syringe are visible in the background of the top section of the page.

sugar side effects

health risks

o Cardiovascular health

- o According to a study, getting >21% of calories from added sugar doubles your risk for dying from cardiovascular disease.
- o High sugar diets are linked to heart disease, obesity, inflammation and elevated triglycerides, blood sugar, and blood pressure levels.
- o Studies have confirmed that sugar can significantly increase the risk of dying from metabolic syndrome or cardiovascular disease.
- o Research has shown that people getting 20% of their calories from added sugar have a 38% higher risk of dying from heart disease compared to those who get 8%.
- o High added sugar intake is associated with increased inflammation and oxidative stress, which are important factors in the development of atherosclerosis.
- o Sugar intake may increase cardiovascular risk by increasing fat synthesis by the liver (a process called de novo lipogenesis [DNL]). Excessive fructose metabolism can cause the liver to make new fat, an effect which could be greater when fructose is paired with glucose. DNL is linked to increased triglyceride and cholesterol levels and has been associated with increased inflammatory factors, such as C-reactive protein in the blood.
- o In a 2015 research review, authors concluded that data support an association between added sugars and atherosclerosis, peripheral vascular disease, coronary artery disease, cardiomyopathy, heart failure, and cardiac arrhythmias.

Sugar



sugar side effects

health risks

o Weight gain

- o Excessive fructose consumption may cause a resistance to leptin, which is an important hormone that regulates hunger and alerts the brain to stop eating.
- o Studies have confirmed that consuming fructose increases hunger and desire for food more than glucose, the primary type of sugar found in starchy foods.

o Gut health and immunity

- o A surmountable amount of evidence supports the notion that sugar, among other poor dietary factors, changes the gut microbiota in a way that increases intestinal permeability (i.e. leaky gut). Leaky gut can lead to immune function impairments as well as other symptoms including increased allergies, skin issues, poor digestion, etc.
- o Chronic, low-grade inflammation stemming from poor gut integrity and deficiencies can lead to the transfer of harmful substances from the gut to the bloodstream.
- o Additionally, excessive added sugar intake has been associated with a higher risk of depression. The area of gut health and its role as the 'second brain' has been a major focus of research recently. It is believed that neurotransmitter dysregulation and inflammation caused by poor gut health are likely to play a role on mental health.
 - A study following 8,000 people for 22 years found that men who consumed 67 grams or more of sugar per day were 23% more likely to develop depression than men who ate less than 40 grams per day.
 - A study of >69,000 women demonstrated that those with the highest intakes of added sugars had significantly greater risk for depression, compared to those with lowest intakes.

Sugars

A close-up, soft-focus photograph of a woman's face and hand. Her eyes are light blue, and her hand is resting near her chin. The lighting is warm and natural.

sugar side effects

health risks

o Skin

- o A diet high in refined carbohydrates has been associated with a higher risk of developing acne. Foods with a high glycemic index (e.g. processed food products, sweets, etc.) elevate blood sugar more rapidly than foods with a lower glycemic index. These foods can quickly spike blood sugar and insulin levels, causing increased androgen secretion, oil production and inflammation – all of which play a role in the development of acne.
- o A study of 2,300 teenagers found that those who frequently consumed added sugar had a 30% greater risk of developing acne.
- o Consuming a diet high in refined carbohydrates leads to the production of advanced glycation end products (AGEs) and may cause skin to age prematurely. AGEs damage collagen and elastin, which are proteins that help the skin stretch and keep its youthful appearance.

o Cellular aging

- o Consuming high amounts of added sugar has been shown to accelerate telomere shortening, which increases cellular aging.
- o A study of 5,309 adults found that regularly drinking sugar-sweetened beverages was associated with shorter telomere length and premature cellular aging.

Sugar

sugar side effects

health risks

Kidney disease

- Having consistently high blood sugar levels can cause blood vessel damage in your kidneys which can lead to an increased risk of kidney disease.

Dental health

- Eating too much sugar can cause cavities. Bacteria in your mouth feed on sugar and release acid byproducts, which cause tooth demineralization.

Gout

- Added sugars raise uric acid levels in the blood, increasing the risk of developing or worsening gout.



Sugars

What does it say?



nutrition label | *sugar lingo*

"Sugar-free"

- Each serving contains less than a ½ gram of sugar per serving.
- It can contain artificial sweeteners to boost sweetness.

"Low sugar"

- No established definition.

"Reduced sugar"

- A product contains 25% less sugar compared to the original item with its original serving size.



nutrition label lingo

Sugar

common misconceptions

Can't I just swap *sugar* for *artificial sweetener*?

- o Consumption of sweeteners like aspartame, saccharin, and sucralose are linked to weight gain, not weight loss, according to an analysis of 37 studies published in the Canadian Medical Association Journal.
- o Artificial sweetener consumption has been linked to a higher risk for high blood pressure, type 2 diabetes, metabolic syndrome, heart attacks, and stroke.
- o Mounting evidence suggests that artificial sweeteners can have a negative impact on blood sugar, make it harder to keep appetite in check, contribute to various metabolic disturbances, and disrupt gut microbiota. All of which can increase your risk for obesity and other health problems.

What about *polyols like xylitol, erythritol, and sorbitol*?

- o These are another category of sweeteners that also fall under the category of 'sugar substitutes.' They contain fewer calories than sugar and are generally less sweet or as sweet sugar.
- o Polyols are FODMAPs, a collection of compounds in food shown to exacerbate gastrointestinal symptoms in some people with IBS.
- o The best approach (if including these in your diet) is to consume them in moderation.

ingredient check

INGREDIENT LIST CHECK | *common names of added sugar*

Added sugar may appear on ingredient lists by different names, but the body metabolizes them all in essentially the same way.

- o Agave nectar
- o Agave syrup
- o Brown sugar
- o Cane syrup
- o Caramel
- o Carob syrup
- o Coconut sugar
- o Coconut sugar
- o Confectioner's powdered sugar
- o Corn sweetener
- o Corn syrup
- o Dehydrated cane juice
- o Dextrin and maltodextrin
- o Dextrose or crystal dextrose
- o Evaporated cane juice or fruit juice
- o Evaporated corn sweetener
- o Fruit juice/fruit juice concentrate
- o Glucose, lactose, maltose, fructose, sucrose and other ingredients ending in 'ose'
- o High-fructose corn syrup
- o Honey
- o Invert syrup
- o Malt sugar
- o Maple syrup
- o Molasses
- o Muscovado
- o Other fruit nectars (for example, pear nectar)

Common names

Sugars



ingredient check

common names

INGREDIENT LIST CHECK | *continued*

Continued

- o Panela (raspadora)
- o Raw sugar
- o Rice syrup
- o Rice syrup
- o Sugar
- o Sweet sorghum
- o Syrup
- o Treacle
- o White sugar

Other ingredients to consider:

- o Any ingredient with the word "sugar," such as white granulated sugar, brown sugar, beet sugar, raw sugar, or sugar cane juice
- o Any ingredient with the word "nectar," such as agave nectar, peach nectar, or fruit nectar;
- o Any ingredient with the word "syrup," such as corn syrup, high fructose corn syrup, carob syrup, maple syrup, or malt syrup;
- o Any ingredient containing a word ending in "-ose," including sucrose, dextrose, glucose, fructose, maltose, lactose, galactose, saccharose, and mannose

More 'natural', less processed options – ok in moderation:

- Coconut palm sugar
- Honey
- Pure maple syrup
- Blackstrap molasses

Sugars

hidden sources

Which popular foods contain hidden sources of sugar?

Major food and beverage sources of added sugars:

- o Candy
- o Regular soft drinks/sodas
- o Energy drinks
- o Sports drinks
- o Desserts or snacks (e.g. cakes, cookies, pies, cobblers, etc.)
- o Refined carbohydrates (e.g. sweet rolls, pastries, doughnuts, etc.)
- o Sweetened teas and fruit drinks (e.g. iced tea, fruit punch, etc.)
- o Dairy desserts (including ice cream)

Common “healthy” foods containing high amounts of added sugar:

- o Cereals (including hot cereals and flavored oatmeal)
- o Packaged breads (including ‘whole wheat’, ‘multi-grain’, etc.)
- o Coffee drinks
- o Protein bars and meal replacement bars
- o Snack bars (i.e. granola bars and other seemingly ‘healthy’ bars)
- o Sweetened yogurts and other dairy products (e.g. flavored kefir, frozen yogurt, etc.)
- o Frozen waffles or pancakes
- o Condiments (e.g. sauces, dressings, marinades, ketchup, relish, etc.)
- o Dried fruit and other fruit snacks

How much is safe?

important note

SAFE AMOUNT OF ADDED SUGAR TO CONSUME PER DAY

- According to the World Health Organization (WHO) and the American Heart Association, no more than 6 teaspoons (or about 100 calories) for most women or 9 teaspoons (or about 150 calories) for most men, per day is recommended.
- According to dietary guidelines, it is recommended that added sugar intake be less than 10% per day.
- The American Heart Association recommends no more than 6 teaspoons of added sugar for women per day and note more than 9 teaspoons of added sugar for men per day.

Important Note:

This is a guideline and does not take into account activity levels, body habitus, height, etc.



Sugar

how do I avoid it?

How to cut back on added sugar intake:

Consider food swaps - instead of a food 'product' made with added sugar, eat the real food, in it's most whole, raw form

Examples:

- Raw cashews vs. honey-roasted or chocolate covered cashews
- Homemade trail mix vs. candy or pre-packaged trail mix

Pair a naturally sweet food with a nourishing fat/protein source (i.e. Granny smith apple with almond butter) Together, these take a little longer to digest and are less likely to spike your blood sugar quite as fast as sugar (carbohydrates) would alone.

Keep a food diary; accountability works well with a lot of people (this can be 'pen and paper' or something you keep electronically in your phone or on a tablet/computer.)

[Consider a 10 Day Sugar Detox](#) – make it a goal to only consume foods containing natural sugars; you may be surprised at how much you were previously consuming and how much your taste buds can change with only a few days of 'added sugar' rest. Find the perfect 10 Day Program [HERE!](#)

Aim to have a source of protein, nourishing fats, and vegetables at each meal; this helps to reduce intakes of processed grains and flour products.

Swap your morning cereal for a bowl of rolled oats topped with nut butter and fresh berries, or an omelet made with fresh greens.

Shop the perimeter of the grocery store, focusing on fresh, whole ingredients.



Sugar Addiction Checklist

Sugar Addiction Checklist

Sugar

Check any that apply to you:

- Do you have a tough time saying 'no' to sweets and desserts
- Do you experience cravings even when you try to cut down your sugar intake or carbohydrates
- Do you think about sugary foods during the day and evening.
- When you start to eat sweets, it is difficult to stop.
- You get a rush of energy after eating sweets, but crash/feel hungry pretty quickly.
- You often feel guilt or shame after eating sugar.
- You reward yourself with sugary food or drinks.
- You overeat sugary foods when you are stressed.
- You have memories of feeling loved or cared for that are connected to sweets.
- You can't seem to get enough sugar when you start eating sweets, but crave more.

(Adapted from Are You Addicted to Sugar? Quiz, Prevention)

If you checked three or more of these, you may have a problem with sugar. Your responses are more important than the number of check marks. Let's work on this together with [this awesome 10 Day program!](#)



Interested in learning more? What to do now?

Let's chat about the perfect wellness plan for you!

Ready to make the change? Check out my awesome [10 Day Sugar Detox program](#) and make it happen! It includes 30 recipes, trackers, affirmations, and information of getting rid of sugar and feeling the best ever! Choose from a guided program with coaching, or a DIY plan!

Let's Connect



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