

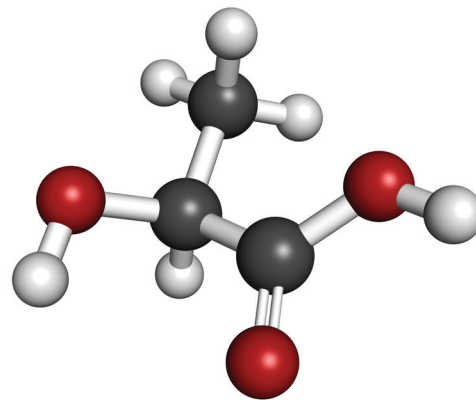
Sugar: the not-so-sweet truth

Myths and facts about sugar ✓

- Sugar is high in calories. _____ **Myth** _____ **Fact**
- The average American consumes 22 teaspoons of sugar each day.¹ _____ **Myth** _____ **Fact**
- Sugar causes diabetes. _____ **Myth** _____ **Fact**
- Sugar can cause weight gain. _____ **Myth** _____ **Fact**
- Sugar is addictive in people. _____ **Myth** _____ **Fact**

What is sugar?

- Once called “white gold”
- Sugars = saccharides; building blocks of carbohydrates
- Found naturally in plants
- Two types:
 - Monosaccharide
 - Disaccharide
- Naturally occurring vs. added



Chemical names for sugar

Can you match the type of sugar with the picture of where it's found?

- a) Sucrose
- b) Fructose
- c) Lactose
- d) Glucose
- e) Maltose



Fruit



Milk



Blood sugar



Table sugar



Beer

Sugar: the not-so-sweet truth continued

Why is sugar important?

- The body needs it
 - Converted into glucose to be used
 - Provides quick energy source or stored for later
- Food needs it
 - Enhances flavors and colors
 - Preserves foods
 - Adds bulk and texture
- Industries need it
 - Pharmaceuticals
 - Ethanol
 - Many more



Different types of sweeteners

- **White granulated sugar (sucrose)** has had all of the naturally present molasses refined out of it. It is often used for baking, sprinkling onto foods and dissolving in drinks.
- **Brown sugar** is refined white sugar with molasses added back in. It can be found in light and dark varieties. It has high moisture content, making it good for baking.
- **Turbinado sugar** is raw sugar that has had the molasses on the surface washed away. Raw sugar is mostly used for sweetening drinks or sprinkling onto foods. Organic or “raw” sugar is still sugar to your body.
- **Powdered sugar** or confectioner’s sugar, is finely ground sucrose (white table sugar).
- **Honey** is the nectar of honeybees. It’s made up of a mixture of sucrose, fructose and water. It contains small amounts of vitamins and minerals, antioxidants, and it’s almost completely unrefined.
- **Agave nectar** comes from the agave cactus and it has a similar taste and texture to honey. It is about 1.5 times sweeter than sugar and higher in calories (per tablespoon).
- **High fructose corn syrup** is made up of fructose and glucose from processed corn syrup. It is cheaper than regular sugar and gives products a longer shelf-life. It may contribute to some health conditions.
- **Maple syrup** is made from the sap of maple trees. It is almost completely unrefined and contains some vitamins and minerals like calcium, magnesium, potassium and iron.
- **Date sugar** is an extract taken from dehydrated dates. It can be used as a slightly more nutritious alternative to sugar because it contains several essential minerals and fiber.

Sugar: the not-so-sweet truth continued

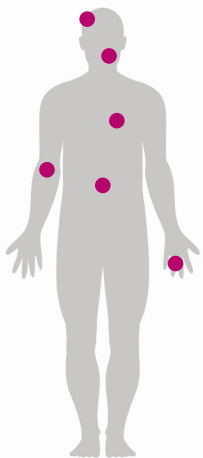
What about artificial sweeteners?

- Also called nonnutritive sweeteners or sugar substitutes
- Offer the same sweetness as sugar without the calories
- Approved by the FDA
- Sugar alcohols
- Are artificial sweeteners safe?
 - The FDA states there is no scientific evidence that they're unsafe
 - Depends on your definition of safe
- Are artificial sweeteners good for your nutrition?
 - People may replace "saved" calories with other sources
 - May overstimulate sugar receptors
 - Can trigger sweet cravings, leading to weight gain²



Too much sugar and the body

- **Brain fog.** Sugar can cause bacteria in your intestines to die, decreasing B vitamin complex levels and leading to sluggishness, sleepiness and problems with short-term memory
- **Tooth decay.** Sugar can make your blood thick and sticky, impeding blood flow to the capillaries that supply nutrients to teeth and gums, leading to cavities, gum disease and the rotting of teeth
- **Heart disease.**⁴ People who consume 25 percent or more of their daily calories from sugar may be at a greater risk of death than those who consume less than 10 percent of calories from sugar and people who eat the most added sugars have the lowest HDL cholesterol and the highest triglyceride levels
- **Weight gain.** Sugar contributes excess calories to the diet and leads to fat storage, especially visceral fat and can interfere with the body's hunger signals
- **Cancer.** Excess sugar is heavily associated with certain types of cancer
- **Insulin resistance.** Sugar increases insulin levels, leading to diabetes and weight gain



BRAIN FOG

Reduces B complex vitamins, leading to sluggishness and short-term memory problems

HEART DISEASE³

Can increase the risk of dying from heart disease, despite weight

CANCER

Can damage the cells of the body and increase the risk of cancer

TOOTH DECAY

Leads to tooth decay and increases the risk of developing cavities

WEIGHT GAIN

Excess stored as fat that tends to accumulate around midsection (belly fat)

INSULIN RESISTANCE

Increases insulin levels, leading to diabetes and weight gain

Sugar: the not-so-sweet truth continued

Five tips for reducing sugar

1. Understand how much is too much

- The average adult consumes 22 tsp of added sugar each day⁵
- Recommended daily added sugar intake⁶:
 - Women: 6 teaspoons
 - Men: 9 teaspoons
- 4 grams of sugar = 1 teaspoon
- How much sugar are you currently eating?



Use the sample sugar tracker below to see how much sugar you eat in a day.

Sample sugar tracking tool	
Food or beverage	Grams of sugar
Total	grams

2. Know where sugar hides

- The major food and drink sources of added sugar in the American diet are:
 - Soft drinks, energy drinks and sports drinks
 - Sweetened coffee drinks and iced tea
 - Candy
 - Pies and cobblers
 - Sweet rolls, cookies, pastries and donuts
 - Fruit drinks (like fruitades and fruit punch)
 - Dairy desserts (like ice cream)
- Watch out for other sweeteners including honey, maple syrup and agave nectar
- Even healthy foods can be high in sugar



Sugar: the not-so-sweet truth continued

3. Make low-sugar swaps

- Swap sugary drinks for _____
- Swap candy for _____
- Swap cereals and granola bars for _____
- Swap sauces and condiments for _____

4. Read your food labels

- Food manufacturers are not currently required to differentiate between naturally occurring and added sugars on food labels, but new guidelines will require them to be listed separately
- Remember: 4 grams of sugar = 1 teaspoon
- Look for total sugar
- Is sugar one of the top ingredients?
- Other names for sugar: agave nectar, brown sugar, cane crystals, corn sweeteners, corn syrup, crystalline fructose, dextrose, evaporated cane juice, fructose, fruit juice concentrates, glucose, high fructose corn syrup (HFCS), honey, invert sugar, maltose, malt syrup, maple syrup, molasses, nectars, raw sugar, sucrose and syrup
- Beware of fat-free foods

Nutrition Facts		
Serving Size 1 cup (110g)		
Servings Per Container About 6		
Amount Per Serving		
Calories	250	Calories from Fat 30
% Daily Value*		
Total Fat	7g	11%
Saturated Fat	3g	16%
Trans Fat	0g	
Cholesterol	4mg	2%
Sodium	300mg	13%
Total Carbohydrate	30g	10%
Dietary Fiber	3g	14%
Sugars	2g	
Protein	5g	
Vitamin A		7%
Vitamin C		15%
Calcium		20%
Iron		32%
* Percent Daily Values are based on a 2,000 calorie diet. Your daily value may be higher or lower depending on your calorie needs.		
	Calories:	2,000 2,500
Total Fat	Less than	55g 75g
Saturated Fat	Less than	10g 12g
Cholesterol	Less than	1,500mg 1,700mg
Total Carbohydrate		250mg 300mg
Dietary Fiber		22mg 31mg

Nutrition Facts		
6 servings per container		
Serving Size		1 cup (110g)
Amount per 1 cup		
Calories	250	
% DV*		
11%	Total Fat	7g
16%	Saturated Fat	3g
	Trans Fat	0g
2%	Cholesterol	4mg
13%	Sodium	300mg
10%	Total Carbs	30g
14%	Dietary Fiber	3g
	Sugars	2g
	Added Sugars	0g
	Protein	5g
7%	Vitamin A	1mcg
15%	Vitamin C	2mcg
20%	Calcium	4mg
32%	Iron	5mg
* Percent Daily Values are based on a 2,000 calorie diet. Your daily value may be higher or lower depending on your calorie needs.		
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5. Choose the right carbohydrates

- 45-65 percent of your daily caloric intake should consist of carbohydrates
- Simple vs. complex
 - Simple carbs have shorter chains of sugar molecules, meaning they are digested faster and raise blood sugar levels quickly
 - Complex carbs have longer chains of molecules, so they are digested more slowly and raise the blood sugar gradually

Sugar: the not-so-sweet truth continued

5. Choose the right carbohydrates Continued

- Look for whole grains
- Pick fresh fruits and veggies
 - Fresh, whole fruits can satisfy your sweet tooth
 - Avoid fruits that have been canned in syrups
 - Fruits have different amounts of sugar, so choose wisely
 - Look for a wide variety of vegetables, but try to get mostly non-starchy options
- Balance your meals and snacks by pairing sugar with protein, fiber and healthy fats



Sugar content for fruits

Low	Lemon, lime, berries (raspberries, blackberries, cranberries, strawberries, blueberries) rhubarb, watermelon, peaches, cantaloupes, honeydew melons, apples, apricots, grapefruit
Medium	Plums, oranges, kiwi, pears, pineapple
High	Cherries, grapes, pomegranates, mangoes, tangerines, bananas, figs, dried fruit (raisins, dried apricots, prunes)

References

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