

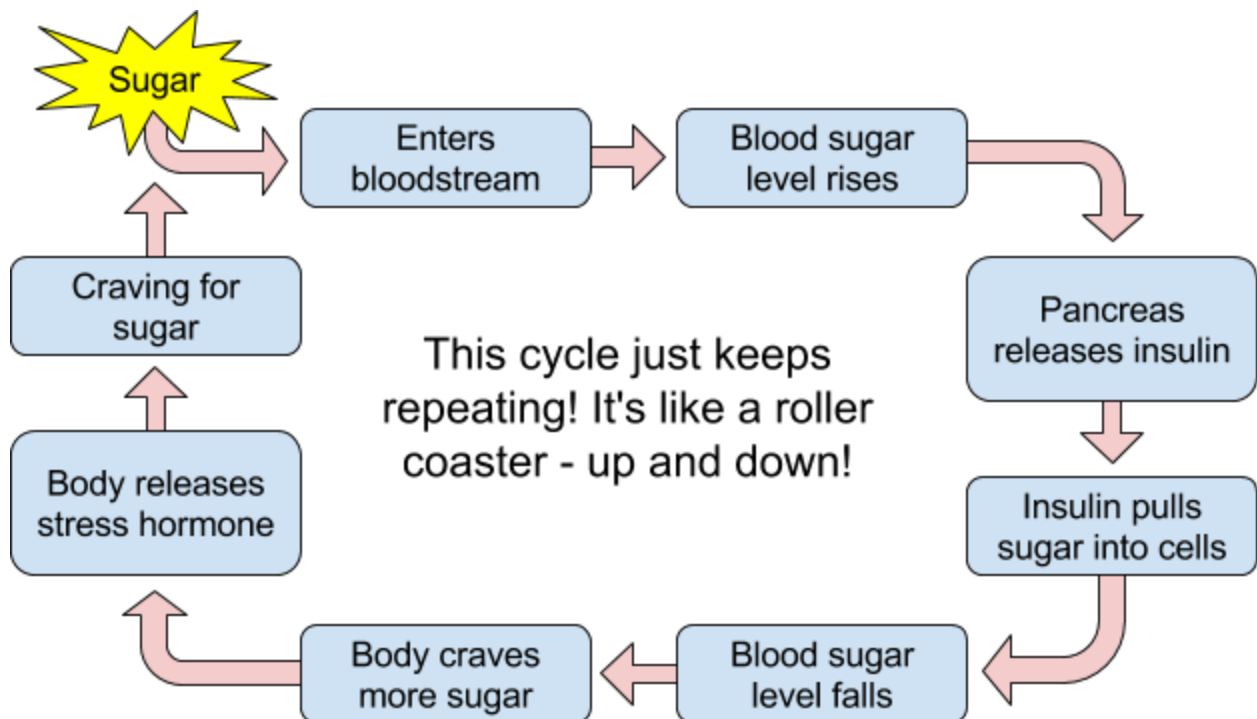
**Sugar** has 56 names and is a carbohydrate → Glucose, fructose, sucrose, dextrose, lactose, maltose, corn syrup, high fructose corn syrup, xylitol, sorbitol = **sugar**

**Sugar** increases the risk of many diseases and illnesses, including cancer, high blood pressure, GI issues, mineral imbalances, migraines, obesity, depression, ADHD, and more.

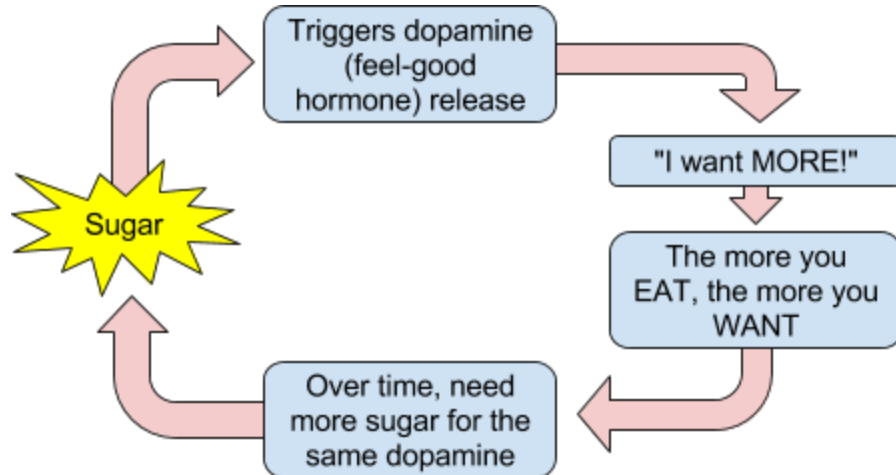
### **ADDICTION:**

- **Sugar** causes a neurochemical reaction in the cerebral cortex, much like nicotine, cocaine, and heroin.
- Recommended **sugar** intakes are 20-32 grams a day for people 9-19 years old. For reference, a can of soda has about 39 grams. 1 soda per day = 15 lbs gained per year.
- Foods high in **sugar** stimulate Lipoprotein Lipase, the enzyme that encourages the body to store fat.
- Leptin is a hormone, created in fat, that regulates energy use and signals in the brain by saying when you're full. Too much **sugar** makes the body leptin-resistant and the signal to "stop" no longer happens.

### **YOUR BODY ON SUGAR:**



### YOUR BRAIN ON SUGAR:



### LEPTIN RESISTANCE:

- Your pancreas makes insulin, which "pairs" with glucose in the bloodstream.
- Insulin is necessary to bring glucose into cells for fuel.
- When you run out of insulin, glucose builds up and is stored as fat.
- Leptin (the "I'm full!" signal) is produced in fat cells.
- If your leptin levels get too high, the signal malfunctions and you never feel full!
- High levels of leptin lead to cravings, hunger, weight gain, low energy, and obesity.

### WATCH:

1. <http://ed.ted.com/lessons/sugar-hiding-in-plain-sight-robert-lustig>
2. <http://ed.ted.com/lessons/how-sugar-affects-the-brain-nicole-avena>

### STRATEGIES:

1. Food labels! Do not eat anything containing more than ten grams of sugar per serving.
2. Eat more protein, fiber, and healthy fats.
3. Take probiotics to fix the biochemistry, which will help fix the behavior.
4. Use more natural sweeteners, such as:
  - a. Applesauce and bananas (works for baking!)
  - b. Stevia or coconut sugar
  - c. Dates, honey, maple syrup
5. Remove processed/dyed/colored foods from your diet!
6. Do not buy "fat free" foods.
  - a. Fat free foods usually replace the flavor of fats with added sugars
7. Know that calories are not created equally!
  - a. A 100-calorie apple is better for you than a 100-calorie bag of chips