

SUGAR

ALL THE NAMES

Sugar

Added sugar (sucrose) contains no nutritional benefit whatsoever. Consuming excess sugar is harmful. However, it is ubiquitous in processed foods, and can be very difficult to avoid.

A common trick manufacturers use is to add sugar from multiple sources. This keeps sugar further down the ingredients list. This list should help you identify sugars, so that you can be aware of, and make an informed decision on what you are eating.

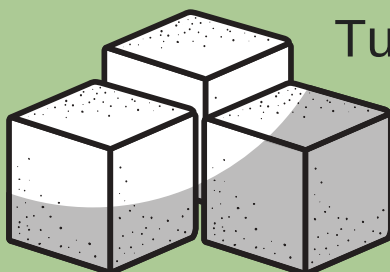


Sugars with Glucose & Fructose

Glucose and Fructose are simple sugars

Table sugar contains equal amounts of glucose and fructose

| | |
|-------------------------|--------------------------|
| Beet sugar | Golden syrup |
| Blackstrap molasses | Grape sugar |
| Brown sugar | High Fructose Corn Syrup |
| Buttered syrup | Honey |
| Cane juice crystals | Icing sugar |
| Cane sugar | Invert sugar |
| Caramel | Maple syrup |
| Carob syrup | Molasses |
| Castor sugar | Muscovado sugar |
| Coconut sugar | Panela sugar |
| Confectioner's sugar | Raw sugar |
| Date sugar | Refiner's syrup |
| Demerara sugar | Sorghum syrup |
| Evaporated cane juice | Sucanat |
| Florida crystals | Table sugar |
| Fruit juice | Treacle sugar |
| Fruit juice concentrate | Turbinado sugar |
| Golden sugar | |



Sugars with Glucose

These sweeteners contain glucose, either pure or combined with non-fructose sugars, such as galactose

Barley malt
Brown rice syrup
Corn syrup
Corn syrup solids
Dextrin
Dextrose
Diastatic malt
Ethyl maltol
Glucose
Glucose solids
Lactose
Malt syrup
Maltodextrin
Maltose
Rice syrup



1 teaspoon = 4g

Nutrition Facts

Serving Size: 1 tsp (4g)

Amount Per Serving

| | |
|-----------------|----|
| Calories | 15 |
|-----------------|----|

| | |
|-------------------|---|
| Calories from Fat | 0 |
|-------------------|---|

% Daily Value*

| | |
|---------------------|-----------|
| Total Fat 0g | 0% |
|---------------------|-----------|

| | |
|-------------------|-----------|
| Sodium 0mg | 0% |
|-------------------|-----------|

| | |
|------------------------------|-----------|
| Total Carbohydrate 4g | 1% |
|------------------------------|-----------|

| | |
|------------------|-----------|
| Dietary Fiber 0g | 0% |
|------------------|-----------|

| | |
|-----------|--|
| Sugars 4g | |
|-----------|--|

| | |
|-------------------|--|
| Protein 0g | |
|-------------------|--|

* Percentage based on a 2,000 calorie diet.

Glucose & Fructose

What's the Difference?

Fructose is a monosaccharide, like glucose. It is many times sweeter than glucose. Table sugar (sucrose) consists of one molecule of glucose and one of fructose. The balance of glucose and fructose is different in all sugars.

Glucose can be metabolised (utilised) by many organs in the body, but fructose can only be metabolised in the liver. Fructose has often been compared to alcohol. The liver can handle a small amount of each perfectly well. The problems start when these are consumed in excess.

Glucose has a high glycaemic index (GI) and will rapidly raise blood glucose levels. This will stimulate insulin release from the pancreas. Some glucose will be stored in the liver and muscle, and the excess converted to triglycerides (a type of fat) and stored as fat, within and around organs and muscle.



Any glucose-fructose combination is uniquely fattening, if consumed in excess, over a period of time.

Glucose & Fructose

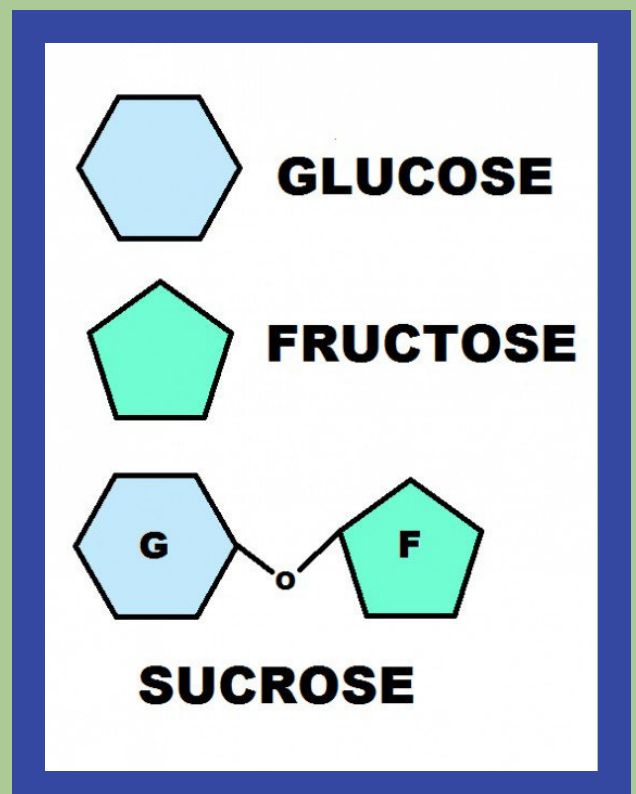
Fructose is not as safe as you may think

Fructose has a low GI and as such, has little impact on blood glucose levels. It is transported directly to the liver – the only organ that can metabolise it – which converts any excess fructose into fat.

Unchecked, this progresses over time, resulting in insulin resistance and inflammation in the liver. Insulin resistance is the hallmark of the metabolic syndrome.

The evidence implicating fructose as a major player in causing the metabolic syndrome is rising. There are significant similarities between fructose and alcohol, with regards to liver metabolism and effects on health.

Alcohol causes alcoholic fatty liver disease. Fructose causes non-alcoholic fatty liver disease. Both increase your visceral (dangerous) fat and likelihood of developing metabolic diseases.



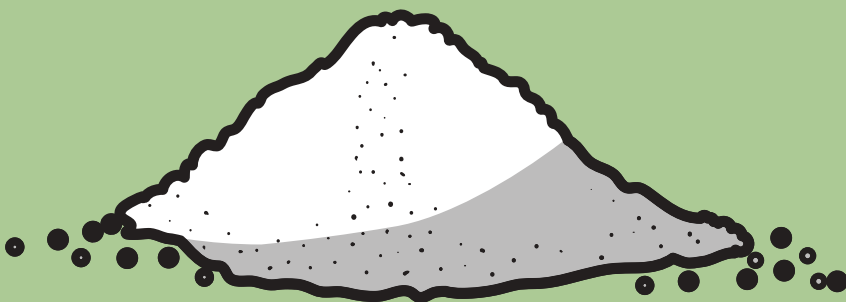
Added Sugar

As ubiquitous as it is dangerous

The NHS (National Health Service, U.K) advises adults not to exceed more than 30g (7 teaspoons) of added sugars a day. Newer WHO (World Health Organisation) conditional guidelines go a little further, recommending less than 6 teaspoons a day, but our consumption of sugar still remains staggeringly high.

Added sugar has no nutritional benefit whatsoever. **None.** The body does not require any energy from added sugar. Referring to sugar as 'empty calories' implies that consuming it does not make a difference, good or bad. This could not be further from the truth. Excessive consumption of sugar **is** the primary culprit in explaining the current crises of metabolic disease and tooth decay that we now face.

'Food' is defined as any nutritious substance that people or animals eat or drink, or that plants absorb in order to maintain life and growth. Sugar has no nutritional benefit. So how can it be considered a food? In addition, if it is not a food, **why are we given guidelines on 'recommended intake'?**



Hidden Sugar

Common sources of hidden sugar

- Cereals, including hot cereals like flavoured oatmeal
- Packaged breads, including "whole grain" kinds
- Snack or granola bars
- Low calorie drinks, including coffees, energy drinks
- Protein bars and meal replacements
- Sweetened yogurts and other dairy products (like flavoured kefir, frozen yogurt)
- Frozen waffles or pancakes
- Bottled sauces, dressings, condiments and marinades (like tomato sauce, ketchup, relish or teriyaki)
- Dried fruit and other fruit snacks
- Restaurant foods, where sugar is used in sauces, various desserts and dressings for extra flavour
- Anything marketed as 'low fat' is often flavoured with sugar or sweeteners
- Fruit juice and fruit-based smoothies



Healthy Sugars?

Sugar is Sugar

It does not matter how 'raw,' 'organic' or natural it is. Your body just 'sees' sugar.

Manuka honey, agave syrup and molasses do have traces of micronutrients. However, you would need to consume a large quantity to benefit - and this will be detrimental to your health.

If you consume a single serving, the traces of vitamins and minerals disappear to register virtually negligible contributions.



Artificial Sweeteners

Substances used instead of sugar to sweeten food & drink

Artificial sweeteners are as ubiquitous as sugar, and are now found in thousands of products, including drinks, chewing gum, toothpaste, desserts and ready meals.

Marketed as low-calorie alternatives to sugar, these sweeteners appear to be the holy grail for those who wish to enjoy a sweet treat, without the guilt. But are they safe?

There does not appear to be any robust consistent evidence to indicate that artificial sweeteners are unsafe, in otherwise healthy adults, in the long term.

They might be safe, but are they healthy? It depends on the sweetener. Many are associated with temporary side effects like bloating and diarrhoea, if consumed in excess.

There is some emerging evidence that some sweeteners, such as aspartame, saccharine and sucralose could be associated with weight gain and type 2 diabetes.

This effect appears to be related to changes to gut bacteria.



Artificial Sweeteners

Generally Regarded As Safe (GRAS)

These artificial sweeteners are generally regarded as safe. However, it is advisable to consume them in small quantities, if necessary.

- Acesulfame K
- Aspartame
- Saccharin
- Sucralose
- Sorbitol
- Stevia
- Xylitol





SUGAR

DR NYAMBURA MBURU

© INSULEAN 2018