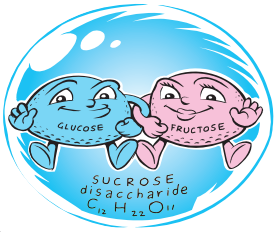
Sweet Truth: Sugar Biochemistry 101

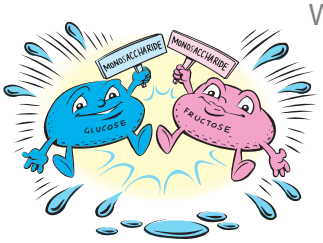
Sugar goes under the microscope.

What is sugar?

Sugar is a crystalline form of the juice from sugarcane or sugar beets. A sweet sugar syrup can also be extracted from corn.

The chemical name for sugar is *Sucrose*. Sucrose is a *disaccharide* molecule. *Di* means *two*. Sucrose contains two compounds called Glucose and Fructose.





When Sucrose goes into your stomach, it *hydrolyses* i.e. water (H^2O) is added, and the Glucose and Fructose graduate into full molecules called *monosaccharides* (simple sugars).

Glucose plays a legitimate and essential role in the human diet - it is our primary source of potential energy.

Glucose is stored in the liver and muscles as *glycogen*, which provides you with a steady flow of energy throughout the day.

If you consume more Glucose than your body needs, the excess is converted into body fat.

Fructose is a 'glamour' molecule. It makes food taste sweeter, but its contribution to metabolic function is minimal.

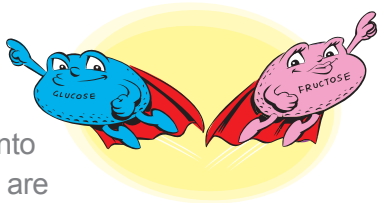
In fact, our body struggles to process excess Fructose to a point where overconsumption can cause serious health issues such as fatty liver and insulin resistance (which leads to liver disease and type 2 diabetes).

POWERED BY

METABOLIC SYMPHONY
KEEP YOUR BODY HUMMING

metabolicsymphony.com

The two molecules travel independently through your gut and into your blood where they are transported to the liver.



Fructose stays in the liver, while Glucose continues on to deliver potential energy to your brain and muscles.

Nature 'designed' Sucrose to always be consumed **in combination with dietary fibre** - the indigestible plant matter from fruits and vegetables.

Fibre slows down absorption in your gut and prevents 'spiking' of Glucose levels in your blood.

Soft drinks and processed foods, such as pastries, cakes, sweets and chocolate, bring in large quantities of Sucrose with no associated fibre. This puts strain on the organs and metabolic processes involved in the processing of Glucose and Fructose.

POWERED BY

METABOLIC SYMPHONY
KEEP YOUR BODY HUMMING

metabolicsymphony.com