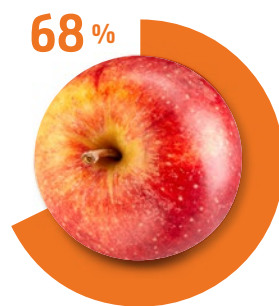


Is sugar = sugar?

Glucose, fructose, lactose – sugars we are all familiar with. Aren't we? A survey by the German Federal Institute for Risk Assessment (BfR) shows that there are gaps in our knowledge. Although the three sugars sound similar, there are slight differences.



Correctly classify glucose as dextrose*.



Correctly classify fructose as fruit sugar*.



Correctly classify lactose as milk sugar*.

Glucose (dextrose)

Glucose, also known as dextrose, naturally occurs primarily in honey and sweet fruits such as apples, dates and grapes, and to a lesser extent in sweet vegetables such as carrots. Glucose can also be produced from the starch of potatoes, maize or wheat. The crystalline type of sugar consists of only a single carbohydrate ring and is therefore considered a simple sugar. Dextrose, fruit sugar and household sugar are used as added sugars to sweeten lemonades, pastries and ready-made meals. They are also used in the kitchen or in catering, for example to sweeten tea or desserts.

Fructose (fruit sugar)

Fructose – fruit sugar – is, like glucose, a simple sugar consisting of only one carbohydrate ring and naturally occurs in honey as well as sweet fruits and vegetables. It is the sweetest naturally occurring type of sugar. Scientific studies indicate that high fructose consumption can have a detrimental effect on metabolism, possibly leading to obesity, fatty liver and type 2 diabetes, among other things. By the way: Chemically combined, fructose and glucose form the disaccharide sucrose, i.e. ordinary household sugar. Glucose-fructose and fructose-glucose syrups, which sweeten many foods such as jams, pastries and ice creams, are mixtures of the two simple sugars.

Lactose (milk sugar)

Compared to glucose and fructose, lactose, or milk sugar, is a less sweet type of sugar naturally found in milk and dairy products such as cream, yoghurt and curd. However, lactose can also be added to other foods such as crisps, liverwurst and crispbread. Lactose is a disaccharide consisting of the simple sugars glucose and galactose. Some people cannot break down lactose because they do not have sufficient amounts of the digestive enzyme lactase. The lactose then reaches the large intestine without being broken down, where it is fermented by the intestinal bacteria. Common consequences include flatulence, abdominal cramps and diarrhoea.

* based on familiarity with the terms glucose, fructose, lactose and the correct estimation of the concentrations in glucose, fructose and lactose.

Underlying study:
Representative online survey with 2,000 people (German-speaking population aged 16 and above) in May 2021