



Making
sense of
sugar

FACTS ABOUT SUGAR

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WHAT IS SUGAR?

Sugar is a natural ingredient which provides sweetness to a range of foods and drinks, including fruits and vegetables, fruit juices, jams, soft drinks, desserts and dairy products.

It is a traditional kitchen ingredient that has been used by our ancestors for many centuries. Sugar is also used to provide structure, texture, flavour, and sweetness, and also acts as a natural preservative.

The most common sugars found in foods and drinks are:

Glucose and fructose – found in fruits, vegetables and honey.

Sucrose – often called table sugar. It is composed of glucose and fructose, and is extracted from sugar cane or sugar beet. Sucrose is naturally present in most fruits and vegetables.

Lactose – commonly known as milk sugar, found in milk and dairy products.

Maltose – commonly known as malt sugar, found in malted drinks and beer.

Different sugars have different properties (structure, texture, flavour, sweetness and preservative) but the property of each sugar is the same, whether they are naturally present in food and drink or used during preparation.

The body does not distinguish between sugars used in manufacturing or in the home, and those found naturally in fruits and vegetables. For example, sucrose in an apple is broken down in exactly the same way as the sucrose in your sugar bowl.



DID YOU KNOW?

The body breaks all sugars and starches down to glucose. The brain requires around **130g of glucose** each day to cover the basic energy needs.

WHAT IS THE ROLE THAT SUGAR CAN PLAY IN A HEALTHY BALANCED DIET?

Sugar is a source of energy, and we all need energy to go about our daily lives. The most important and predominant sugar in the body is glucose; body tissues require a constant supply of fuel in the form of glucose from foods and glycogen reserves. The brain requires around **130g of glucose** a day to cover energy needs.

DID YOU KNOW?

Sugar has **four calories** per gram, which compares to protein (**four calories**), fat (**nine calories**), and alcohol (**seven calories**).

Current scientific thinking is that approximately 50% of our total dietary intake should come from carbohydrates, including sugars and starches.⁽¹⁾

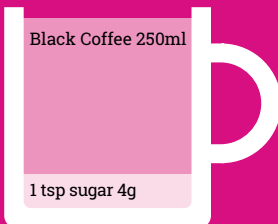
When it comes to sugars (those added to food and drink, or naturally present in honey, syrups and unsweetened fruit juices) they should account for no more than 5% of total dietary energy intake from two years upwards.⁽²⁾ That means no more than 19g/day for 4–6 years, no more than 24g/day for 7–10 years and no more than 30g/day for those aged 11 and over.⁽³⁾ The rest of the diet should be made up of protein (approximately 10% (0.75g of protein per kilogram bodyweight per day for adults) and fat (35% and saturates 11%, or less of our total dietary energy intake).⁽⁴⁾

The recommended Reference Intake for total sugars as part of your diet is 90g a day for adults. This Reference Intake is based on the requirements of an average female with no special dietary requirements and an assumed energy intake of 2,000 calories.⁽⁵⁾

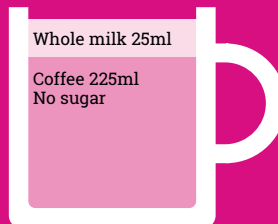
WHITE SUGAR IN COFFEE

What difference does white sugar make to the number of calories in a mug of coffee?⁽⁶⁾
(based on a typical 250ml mug of coffee)

Black coffee
16 calories (sugar)



White coffee
16 calories (milk)



Milky coffee
23 calories (milk)



HOW ARE SUGARS LABELLED?

The sugars most commonly present in foods and drinks are glucose, fructose, sucrose, lactose and maltose – collectively they are known as ‘sugars’ and this term is used in nutritional labelling: ‘carbohydrates – of which sugars’⁽⁷⁾ The amount of sugars in a product (expressed in grams per 100g) is clearly stated in the nutrition information panel on the back of food product packs.

Sugars have to be declared as ingredients in the ingredients list or as an ingredient that contains sugars, such as fruit juice.

DID YOU KNOW?

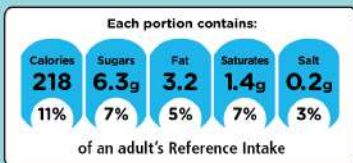
All manufacturers need to provide nutritional information on all pre-packaged foods and drinks in the UK.

Nutritional panel

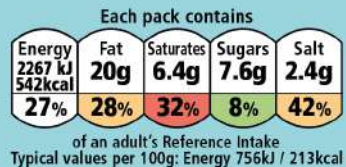
Nutrition Information	
Typical values	Per 100g
Energy	2105KJ
Energy	505kcal
Fat	25g
of which saturates	16g
Carbohydrate	62g
of which sugars	38g
protein	5g
Salt	1g

Figures are for illustration purposes only

Reference Intake label



Traffic-light label



OBESITY

Consistently consuming more 'energy' or calories than our bodies use can lead to an accumulation of excess body fat. This can then result in obesity.

Obesity is a complex issue with many contributory factors.⁽⁸⁾ For example, many of us are simply leading less active lifestyles – whether that's sitting at a desk all day long, driving more and walking less, or watching TV.

When it comes to diet, just like protein, starch and fat, sugar is a source of calories in the diet and excess calories from any ingredient or product can lead to being overweight. However the suggestion that sugar alone is responsible for the rise in obesity rates in the UK is too simplistic. It also is not supported by Government statistics which show a reduction of **16.1%** per capita in consumption of total sugars in the UK since 2001.⁽⁹⁾

People should consult with their doctor for advice on the best diet for their individual needs and lifestyles.



DID YOU KNOW?

Sugar is a natural ingredient believed to have been discovered over 5,000 years ago in the Polynesian Islands of the Pacific Ocean.

DIABETES

Sugar has not been established as a cause of diabetes. Type 2 diabetes generally occurs in people over the age of 40 and is caused by a number of factors. The major factors are being overweight and a lifestyle that is low in physical activity.

Major reviews of the body of scientific evidence by expert committees have found insufficient evidence of a direct link between total sugars intake and obesity or related conditions, including diabetes.⁽¹⁰⁾

People with diabetes are advised to eat a healthy, balanced diet, low in saturated fat, and if they consume sugar, to do so in moderation and subject to the advice of their healthcare professional.⁽¹¹⁾

A report published by the UK Government's expert nutrition group (The Scientific Advisory Committee on Nutrition (SACN)) in July 2015 found no direct link between total sugars intake and diabetes, however it did suggest a greater risk is associated with a higher intake of sugars sweetened beverages.⁽¹²⁾



DENTAL HEALTH

Rates of tooth decay have fallen dramatically over the past four decades since the introduction of fluoride toothpaste in 1976. Many people who are now adults have never had any fillings.

Any foods or drinks that contain fermentable carbohydrates (sugars and starches) can be broken down by the bacteria in your mouth to produce acid. This acid can dissolve away some of the enamel surface of your teeth.

Scientific evidence indicates that both frequency of consumption and the amount consumed may have an impact on tooth decay.

Brushing your teeth with fluoride toothpaste twice a day is the best way to protect against tooth decay. Teeth should not be brushed immediately after eating as this can increase the chance of enamel erosion and potentially tooth decay.^(13,14)



DID YOU KNOW?

The body **does not distinguish between sugars** used in manufacturing or in the kitchen, and those sugars found naturally in fruits and vegetables.

WHAT ARE SUGAR SUBSTITUTES?

Sugar substitutes are additives that replicate some of the properties of sugar.

Many sugar substitutes are low calorie but typically they are synthetic chemicals that only replicate one property of sugar e.g. sweetness.

Some sugar substitutes are not broken down by the body, thus do not deliver calories. However, they may have other effects, such as laxation.

What about sugar reformulation?

There is no complete substitute for sugar and the majority of product reformulation to replace or reduce sugar requires the addition of more ingredients and, typically, the use of additives.

Claims on products such as 'reduced sugars' or 'no-added sugars', does not necessarily mean that a specific product contains lower or reduced calories.

Often, when sugar is reduced or replaced in products containing fat – due to the structural properties previously provided by sugar – fat becomes a larger proportion of the total weight, potentially resulting in increased calorie content per 100g.



THE HISTORY OF SUGAR

Sugar is a natural ingredient that has been in our diet for thousands of years. It is thought to have been first used in the Polynesian Islands over 5,000 years ago.

The first records of sugar being consumed in Britain are from 1264, but it was from 1655 when Jamaica and parts of the West Indies became British colonies that Britain became more involved in the sugar industry.

During this time, sugar production rapidly increased. The demand for mass production played a key role in both the industrial revolution at the start of the 17th Century and in the expansion of the British Empire. However, sugar was not available to everyone and remained a luxury in Britain well into the 18th Century, largely

because it was heavily taxed by the British Government. By 1874, this tax was removed and by the 19th Century, sugar was viewed by many as a necessity.

Today, the world-class British beet sugar industry plays a critical role in the rural economy and future of farming. Across the homegrown sugar industry, it supports up to **9,500** jobs in the UK economy, partners with **3,500** growers and directly employs a skilled workforce of **1,400**.⁽¹⁵⁾ Many of these jobs are highly skilled, making the industry one of the country's leading rural employers.



ABOUT MAKING SENSE OF SUGAR

Making Sense of Sugar is a campaign that aims to inform and educate people about sugar and the role it can play as part of a healthy, balanced diet in order that people can make informed choices about what they consume.

Based on robust science and facts, the campaign provides information about sugar in a way which is simple, straightforward and informative, as well as addressing myths, for example around sugar and obesity.

The www.makingsenseofsugar.com website includes information such as the latest facts and stats about sugar, information on the different types of sugars and how they are used, as well as simple guidance on identifying sugars on food and drink labels and tips on healthy eating and staying active.

Making Sense of Sugar has been developed and funded by AB Sugar, one of the largest sugar producers in the world, with operations in 10 countries and around 32,000 employees.

For more information, visit www.makingsenseofsugar.com or follow us on Twitter [@senseofsugar](https://twitter.com/senseofsugar)

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FOR FURTHER INFORMATION

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