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## Daily sugar intake: How many grams of sugar per day?

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Sugars are everywhere in our diets. They are found naturally in foods or are added to various foods and drinks. Sources of sugar in our diets include fruits and fruit juices, soft drinks, honey, jams and marmalades, vegetable products (e.g., tomato ketchup), ready-meals, desserts and other sweet treats.

Sugars are important as a direct energy source for our brain and muscles and do have a place in a healthy diet. However, how much and from what types of food we get them, makes a difference. Due to the increasing availability of sugar-rich foods and drinks, sugar consumption in our diet has risen in recent decades beyond what can be considered healthy for many of us.<sup>1</sup>/<sub>-</sub> The consumption of sugar-rich soft drinks have been directly linked to overweight and obesity, especially in children and adolescents<sup>2</sup>, hence, the majority of national healthy eating guides recommend us to limit the consumption of sugar-rich foods and beverages.

The latest assessment from the European Food Safety Authority (EFSA) concludes that in the context of a healthy and balanced diet, added and free sugars intake should be as low as possible.<sup>3</sup> A reduction in the amount of added and free sugars in the diet would result in a similar reduction in total sugar intake. Added sugars are here defined as all monosaccharides and disaccharides added to foods by the manufacturers, cooks, or during cooking at home, while free sugars additionally include sugars naturally present in honey, syrups, and fruit juices (i.e., table sugar, or sucrose, as well as glucose, lactose, fructose, maltose, and galactose). The reasoning behind the recommendation from the EFSA is that the risk of unfavourable health effects rises in a linear manner as sugar consumption increases.

However, some other organisations have previously set a recommendation on the amount of sugars in the diet. For example, the World Health Organization (WHO) suggests that free sugars should make up no more than 10% of our daily energy intake.<sup>4,5</sup> For an average active adult requiring 2000 kilocalories a day, 10% means no more than 200 kilocalories coming from free sugars, which is about:

- 12 teaspoons or 48 grams of table sugar, or
- 8.5 tsp of honey, or
- 250 mL of orange juice, or
- 500 mL of soft drink

Of course, our diet consists of many different sugar sources, not just any one of the food and drink examples above. Hence, it is important to keep in mind where the sugar in our diet is coming from.

For additional benefits, the WHO suggests a reduction of free sugars to 5% of total energy intake<sup>5</sup> and several EU countries recommend consuming at most 25 g free sugar per day (or 5% of the overall energy): that is about 6 teaspoons of table sugar. Already a ready meal from the supermarket could contain that much sugar. So, be mindful!

It may sound surprising that sugar is present in savoury ready meals, but the reasons are food safety and technology, as sugar has many functions. It serves as a sweetener, but also as a preservative (in the case of convenience foods), it helps moisture retention and bulking (such as in cakes and biscuits) and it provides stability during freezing and thawing. You can find out more about the different functions of sugar in food production <u>here</u>.

It is important to note that when we refer to sugar, we usually mean sucrose. Other uses of the term 'sugar' may more generally refer to all sugar compounds including:

- Monosaccharides such as glucose and fructose
- Disaccharides like lactose and sucrose
- Oligosaccharides such as mannose or short-chain inulin (the latter also acts as fibre in the human body)
- Polysaccharides which are also known as starches

You can find an overview of the different types of sugars in our article on '<u>The functions of</u> <u>carbohydrates in our body</u>'.

Sugars are sometimes categorised as 'natural', 'total', 'free', or 'added',<sup>6</sup> which may lead us to think that some are 'healthier' than others, which is technically incorrect. Sugars – whether they occur naturally or are added to foods – are chemically the same and have the same effect in and on our bodies. After all, sugars added to foods are also extracted from natural sources. However, foods in which sugars naturally occur – be it grains, pulses, fruit or vegetables – usually contain fibres and other nutrients alongside sugars, and as such are better for our health than foods containing predominantly free or added sugars. Indeed, a high intake of free and added sugars is a risk factor for many preventable diseases, whereas sugars from a diet rich in whole grains, fruit and vegetables are of no concern.<sup>7.8</sup>

Sweeteners can be used as a sugar replacement, but their purpose in our diet needs to be clear (e.g. for weight loss, to replace sugar in chocolates for diabetics) as it will guide what type of sweeteners can be used. There is currently no scientific consensus on whether sweeteners are better than sugar or vice versa. Generally, sweeteners comprise many different compounds (e.g. aspartame, neotame) and they cannot be compared with sugars as a single group. While science is clear that negative health outcomes are associated with excessive energy intake, benefits of sweeteners (for instance in weight loss) will likely depend on the specific circumstances in which they are used. You can find more information on sweeteners in our article on 'Sweeteners: Addressing Common Questions and Debunking myths'.

## References

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