



Sweet talk on diabetes

How can low/no calorie sweeteners help?

HIGHLIGHTS

Low/no calorie sweeteners cause a lower rise in post-prandial blood glucose levels when used instead of sugars and do not otherwise affect overall glycaemic control.

Low/no calorie sweeteners can offer a significant aid to people living with diabetes who need to manage their carbohydrate and sugars intake.

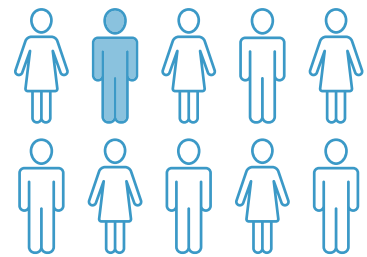


Diabetes is a public health challenge with a rising global burden

It is estimated that **537 million adults were living with diabetes in 2021** and this number is predicted to further rise to 783 million by 2045, with type 2 diabetes constituting the majority (>90%) of cases.^{1,2}

1 IN 10

ADULTS GLOBALLY ARE LIVING WITH DIABETES



1 IN 2



PEOPLE WITH DIABETES REMAINS UNDIAGNOSED

Alongside other cornerstones of diabetes management, a healthy diet has the potential to improve glycaemic control, prevent and/or reduce the risk of diabetes complications and improve quality of life. A variety of eating patterns is recommended for people with diabetes emphasising the consumption of vegetables and whole fruits, whole grains, legumes, nuts, seeds, and vegetable oils, while limiting the consumption of saturated fats, salt, and free/ added sugars.^{3,4}

Low/no calorie sweeteners can be used to replace free/added sugars as part of a healthy eating plan. They provide sweet taste with no, or virtually no, calories without affecting blood glucose control. Therefore, low/no calorie sweeteners may be recommended for the dietary management of diabetes to help reduce overall energy and carbohydrate intake.⁵⁻⁷

Clinical practice guidelines support the use of low/no calorie sweeteners in the nutritional management of diabetes

Diabetes- and nutrition-related organisations globally recognise that low/no calorie sweeteners can be safely used to help reduce overall energy and sugars intake and thus be a helpful strategy to aid glucose management and weight control.³⁻⁷

Nutrition recommendations for diabetes management

American Diabetes Association (ADA)

Medical nutrition therapy recommendations (2023):

*"The use of nonnutritive sweeteners as a replacement for sugar-sweetened products may reduce overall calorie and carbohydrate intake as long as there is not a compensatory increase in energy intake from other sources. There is evidence that low- and no-calorie sweetened beverages are a viable alternative to water."*³

Diabetes and Nutrition Study Group (DNSG) of the European Association for the Study of Diabetes (EASD)

European recommendations for the dietary management of diabetes (2023):

*"Intakes of free or added sugars should be below 10% of total energy intake. Non-nutritive sweeteners (NNS) can be used to replace sugars in foods and beverages."*⁴

Diabetes UK

Diabetes UK Evidence-based nutrition guidelines for the prevention and management of diabetes (2018):

"Non-nutritive sweeteners are safe and may be recommended"^{5,6}

Latin-American Association of Diabetes (Asociación Latinoamericana de Diabetes – ALAD)

ALAD Consensus regarding the use of low/no calorie sweeteners in people with diabetes (2018):

*"If caloric sweeteners are substituted by low/no calorie sweeteners on purpose and within a healthy dietary plan, they can help consumers limit the consumption of carbohydrates and energy and contribute to modest weight loss and glucose control."*⁷

Low/no calorie sweeteners in diabetes

The benefit of low/no calorie sweeteners in glucose control when used in place of sugars has been recognised more than a decade ago. Reviewing the collective evidence, the European Food Safety Authority (EFSA) concluded in a scientific opinion that:

"Consumption of foods containing intense sweeteners instead of sugar induces a lower blood glucose rise after their consumption compared to sugar-containing foods".⁸

This is an authorised health claim in the EU as stated in the Commission Regulation (EU) No 432/2012.

As food ingredients, low/no calorie sweeteners have no effect on blood glucose levels post-prandially, i.e., after food ingestion^{9,10}, or after longer-term consumption^{11,12}, according to comprehensive systematic reviews and meta-analyses of randomised controlled trials. Similarly, low/no calorie sweeteners do not cause insulin secretion nor increase blood insulin levels.⁹⁻¹²

As a result, using low/no calorie sweeteners instead of sugars can help provide people with diabetes with wider food choices so that they do not feel deprived, without contributing to raised blood glucose or insulin levels.

References

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Speak to your doctor or health practitioner for further information on diabetes. Visit our website www.sweeteners.org for further information on low/no calorie sweeteners.

Smart ways to cut off sugars and calories:



For your hot or cold beverages (tea, coffee, chocolate) switch from sugar to table-top sweeteners (1 teaspoon of sugar provides 16-20 calories).



Substitute sugary soft drinks with low/no calorie sweetener 'light' counterparts. This will reduce your calorie intake by around 100 calories per glass or about 140 calories per 330ml can.



Satisfy your appetite for something sweet with a jelly dessert made with low/no calorie sweeteners instead of sugar.