



# Obesity and Weight control

## How can low/no calorie sweeteners help?

### HIGHLIGHTS

Low/no calorie sweeteners are food ingredients with no, or virtually no, energy (calories) that are used in foods and beverages as well as in table-top sweeteners in place of sugars to provide sweet taste with fewer or zero calories.

When used to replace sugars and as part of a healthy eating pattern and lifestyle, low/no calorie sweeteners can help reduce overall energy intake, and in turn, over time, assist with weight control.



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Obesity is caused by a complex interplay of biological, behavioural and environmental factors. Globally, over 650 million adults are living with obesity, while overweight and obesity combined affect about 2 billion individuals.<sup>1</sup>

People living with obesity should receive individualised care including medical nutrition therapy to improve overall health and quality of life, not only weight outcomes.<sup>2</sup> There is no one-size-fits-all nutrition approach when it comes to weight management. Multiple eating patterns could be recommended to people living with obesity based on individual values, preferences and treatment goals that can be maintained over time.<sup>3,4</sup>

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### Role of low/no calorie sweeteners in weight control: a glance at clinical evidence

Low/no calorie sweeteners can be used as one among a pool of different strategies to help reduce overall energy intake from the diet. In turn, when used in place of sugars, low/no calorie sweeteners can help individuals lose weight over time, as shown in numerous human clinical studies.<sup>5-7</sup> Longer term intervention studies also indicate benefits of low/no calorie sweeteners' use in weight loss maintenance over time.<sup>8-10</sup>

Systematic reviews and meta-analyses of randomised controlled trials (RCTs), the gold-standard in clinical and nutrition research, consistently report a modest but significant beneficial effect on body weight when low/no calorie sweeteners are compared with sugars, while no difference is found when compared with water or placebo.<sup>5-8</sup> Research also shows that the overall impact depends on the amount of sugars and calories replaced in the diet with the use of low/no calorie sweeteners.<sup>6</sup>

## Recommendation about the use of low/no calorie sweeteners in weight control

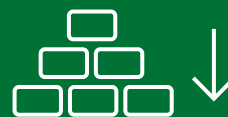
Several organisations globally including the Academy of Nutrition and Dietetics in the United States, American Diabetes Association, British Dietetics Association, European Association for the Study of Diabetes, Mexican Society of Nutrition and Endocrinology, and Obesity Canada recognise that low/no calorie sweeteners can be safely used in place of sugars to help reduce total energy intake and assist in weight control.<sup>3,11-15</sup> The Dietary Guidelines for Americans, 2020-2025, also support the assertion that replacing added sugars with low/no calorie sweeteners may reduce calorie intake in the short-term and aid in weight management.<sup>16</sup>

In 2022, a systematic review by the World Health Organization (WHO) concluded that evidence from RCTs indicates that using low/no calorie sweeteners results in reductions in sugars and total energy intakes, and in turn in small but significant decrease in body weight and adiposity in the short-term but found no evidence for long-term benefits from reviewing observational studies.<sup>17</sup> Despite conflicting results between the study types, WHO issued a *conditional* (weak) recommendation suggesting against the use of non-sugar sweeteners for weight control,<sup>18</sup> based solely on observational studies that are at high risk of bias and cannot provide evidence of causality while ignoring RCT evidence.<sup>19</sup>

### Take home message: Low/no calorie sweeteners as a helpful tool in weight control

There should be no expectation that low/no calorie sweeteners, by themselves, would cause weight loss, as they are not substances that can exert such pharmacologic-like effects.<sup>20</sup> However, choosing low/no calorie sweetened food and beverage options in place of their regular calorie versions can help individuals to keep enjoying sweet-tasting foods and drinks with fewer or no calories, maintain the palatability of the diet and improve compliance to a healthy eating pattern while aiming to manage their body weight and resulting health improvements.<sup>21</sup>

Evidence from systematic reviews and meta-analyses of RCTs shows that low/no calorie sweeteners' use in place of sugars can help:



REDUCE CONSUMPTION OF DIETARY SUGARS<sup>17</sup>



LOWER ENERGY (CALORIE) INTAKE<sup>6,17</sup>



IN BODY WEIGHT CONTROL<sup>5,6,17</sup>

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Speak to your doctor or health practitioner for further information on weight control. Visit our website [www.sweeteners.org](http://www.sweeteners.org) for further information on low/no calorie sweeteners.