

Health & Nutrition Sciences

Health Benefits of Low-Calorie Sweeteners

Low-calorie sweeteners (LCS) can play an important role in maintaining an overall healthy lifestyle.

Scientific evidence shows that LCS can be a dietary tool for:



Managing Weight



Controlling Blood Glucose Levels



Preventing Dental Decay

Common Low-Calorie Sweeteners:



Sucralose

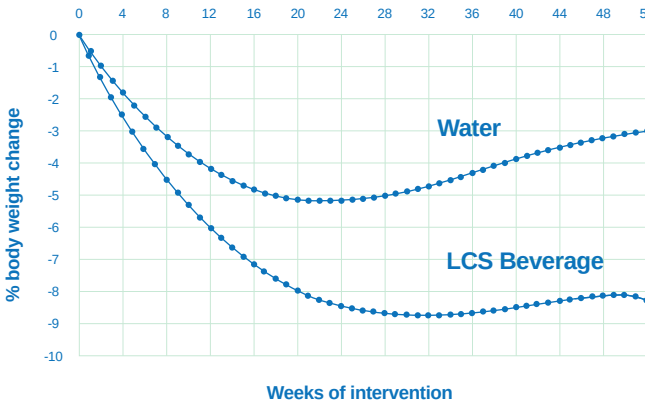
Aspartame

Acesulfame-k

Stevia

A Weight Loss Study

Found that those who consumed LCS beverages lost significantly more weight, and maintained it over 1 year compared to those consuming water, and reported greater reductions in feelings of hunger.¹




| Weeks of intervention | Water (% body weight change) | LCS Beverage (% body weight change) |
|-----------------------|------------------------------|-------------------------------------|
| 0 | 0 | 0 |
| 4 | -1.5 | -2.5 |
| 8 | -2.5 | -4.0 |
| 12 | -3.5 | -5.5 |
| 16 | -4.0 | -6.5 |
| 20 | -4.5 | -7.5 |
| 24 | -4.8 | -8.0 |
| 28 | -4.8 | -8.5 |
| 32 | -4.5 | -8.8 |
| 36 | -4.0 | -8.8 |
| 40 | -3.5 | -8.8 |
| 44 | -3.0 | -8.8 |
| 48 | -2.8 | -8.8 |
| 52 | -2.5 | -8.8 |

Adapted from Peters et al. 2016

Managing Weight

LCS may be a useful tool to help with weight loss or weight maintenance plans.²⁻⁵

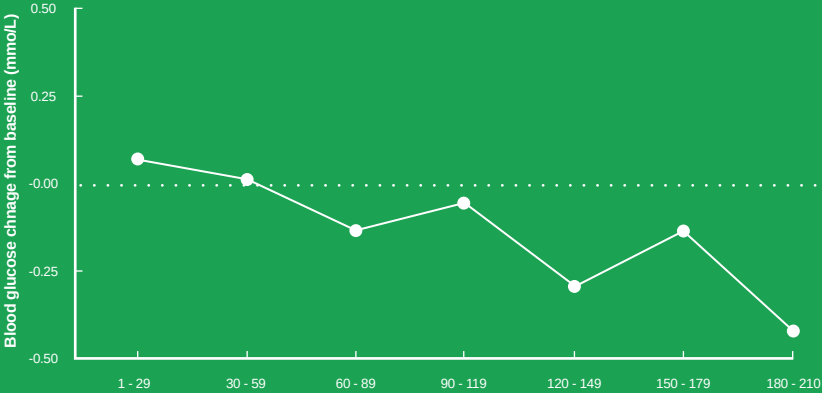


Controlling Blood Glucose Levels

LCS can be an effective tool for helping people living with diabetes to consume an appropriate and enjoyable diet.⁶⁻¹⁰



Intake of LCS does not increase blood glucose levels after consumption.⁷



| Time intervals (minutes) | Blood glucose change from baseline (mmol/L) |
|--------------------------|---|
| 1 - 29 | -0.05 |
| 30 - 59 | -0.02 |
| 60 - 89 | -0.15 |
| 90 - 119 | -0.10 |
| 120 - 149 | -0.30 |
| 150 - 179 | -0.15 |
| 180 - 210 | -0.40 |

Adapted from Nicol et al. 2018

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There are many health associations around the world that support the use of LCS as a tool for weight loss, diabetes management, and/or dental health, including:

- Dietary Guidelines Advisory Committee 2020
- Academy of Nutrition and Dietetics
- American Diabetes Association
- European Food Safety Authority
- Dietitians of Canada
- Association of UK Dietitians
- British Dietetic Association
- Dietitians Association of Australia
- International Food Information Council
- Mexican Diabetes Federation



LCS Help to Support Good Oral Hygiene



Preventing Dental Decay

LCS are not fermented by oral bacteria and therefore do not cause tooth decay. Substituting LCS for sugar may therefore help maintain tooth mineralization.^{11,12,13}



Incorporating beverages sweetened with low-calorie sweeteners as part of a healthy lifestyle can be a useful strategy to maintain a healthy diet or even lose weight.

To learn more about the topic of low-calorie sweeteners, check out these sources for more helpful information.

[PepsiCo's Human Sustainability](https://www.pepsico.com/sustainability/focus-areas/product)

<https://www.pepsico.com/sustainability/focus-areas/product>

[U.S. Food and Drug Administration](https://www.fda.gov/food/food-additives-petitions/high-intensity-sweeteners)

<https://www.fda.gov/food/food-additives-petitions/high-intensity-sweeteners>

[Calorie Control Council](https://caloriecontrol.org/sugar-substitutes/)

<https://caloriecontrol.org/sugar-substitutes/>

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