

# LOW CALORIE SWEETENERS IN DENTAL HEALTH: TOOTH-FRIENDLY INGREDIENTS

## LOW CALORIE SWEETENERS (LCS) ARE...



sweet-tasting ingredients



used in foods, drinks and table-top sweeteners to replace sugar



with no or very few calories (and no sugars)



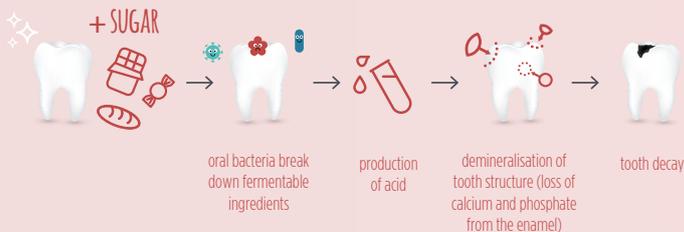
over 40% of the global population is dealing with untreated tooth decay



with the right care, oral diseases are largely preventable!

## WHY LOW CALORIE SWEETENERS ARE TOOTH-FRIENDLY INGREDIENTS:

“Frequent consumption of sugars contributes to tooth demineralisation.”<sup>1</sup>



vs



UNLIKE SUGAR AND OTHER FERMENTABLE INGREDIENTS OF OUR DIET, LOW CALORIE SWEETENERS (LCS) ARE NOT BROKEN DOWN BY ORAL BACTERIA, AND THAT IS WHY THEY DO NOT CONTRIBUTE TO TOOTH DECAY.



“CONSUMPTION OF FOODS/DRINKS CONTAINING LOW CALORIE SWEETENERS INSTEAD OF SUGAR AND AS PART OF A VARIED AND BALANCED DIET AND A HEALTHY LIFESTYLE MAY HELP MAINTAIN TOOTH MINERALISATION BY DECREASING TOOTH DEMINERALISATION.”<sup>1</sup>



“WHEN SUGARS ARE REPLACED WITH NON-CARIOGENIC SUGAR SUBSTITUTES IN FOODS AND DRINKS, THE RISK OF DENTAL CARIES IS REDUCED.”<sup>2</sup>

“NON-CARIOGENIC SUGAR SUBSTITUTES, WHEN USED IN PRODUCTS SUCH AS CONFECTIONARY, CHEWING GUM AND DRINKS, REDUCE THE RISK OF DENTAL CARIES.”<sup>2</sup>

## WHAT DOES THE SCIENTIFIC EVIDENCE SHOW?



### LOW CALORIE SWEETENERS (LCS)

“ARE NON-CARIOGENIC, WHICH MEANS THAT THEY ARE NOT FERMENTED BY ORAL BACTERIA AND DO NOT CAUSE TOOTH DECAY. (...) LCS HAVE DENTAL BENEFITS WHEN USED IN FOOD, BEVERAGES, TOOTHPASTE AND MEDICATIONS, PROVIDED OTHER CONSTITUENTS ARE ALSO NON-CARIOGENIC AND NON-EROSIVE.”<sup>3</sup>

### Glossary:

- Dental caries:** The scientific term for tooth decay or cavities.
- Fermentable ingredients:** Ingredients that can be broken down by the bacteria living in our mouth through a process called fermentation. These ingredients include mainly carbohydrates such as sugars and starch.
- Non-cariogenic:** Which does not promote the development of tooth decay.
- Non-erosive:** Which does not contribute to the loss of tooth enamel caused by acid production.
- Tooth demineralisation:** The process of calcium and phosphate loss from the tooth enamel over time.
- Tooth enamel:** The hard, protective coating of the tooth.

### References:

- EFSA Panel on Dietetic Products, Nutrition and Allergies (NDA); Scientific Opinions on the substantiation of health claims related to the sugar replacers. EFSA Journal 2011;9(4):2076. [25 pp.]. Available online: <https://www.efsa.europa.eu/en/efsajournal/pub/2076> and on the substantiation of health claims related to intense sweeteners. EFSA Journal 2011; 9(6):2229 [12 pp.]. Available online: <https://www.efsa.europa.eu/en/efsajournal/pub/2229>
- FDI Policy Statement. Sugar Substitutes and their Role in Caries prevention. Adopted by the FDI General Assembly, 26th September 2008, Stockholm, Sweden. Published on FDI World Dental Federation (<https://www.fdiworlddental.org>). Accessed February 18, 2019
- Gibson S et al. Consensus statement on benefits of low-calorie sweeteners. Nutrition Bulletin 2014;39(4):386-389
- Anderson CA, et al. Sucrose and dental caries: a review of the evidence. Obesity Reviews 2009;10(Suppl 1):41-54.
- FDI World Dental Federation. The Challenge of Oral Disease – A call for global action. The Oral Health Atlas. 2nd ed. Geneva. 2015. Available online: [https://www.fdiworlddental.org/sites/default/files/media/documents/complete\\_oh\\_atlas.pdf](https://www.fdiworlddental.org/sites/default/files/media/documents/complete_oh_atlas.pdf)
- Gupta P, et al. Role of Sugar and Sugar Substitutes in Dental Caries: A Review. ISRN Dent. 2013;519421

