



International  
Sweeteners  
Association



## FACTSHEET

# Dental and Oral Health with Low/no Calorie Sweeteners

Good oral health is defined as the ability to speak, smile, taste, touch, chew, swallow and convey a range of emotions with confidence and without pain, discomfort and disease.<sup>1</sup>

Oral disease affecting teeth and gums can cause pain, change what it's possible to eat and affect personal relationships and self-confidence reducing overall quality of life and well-being. The good news is that dental disease such as tooth decay is largely preventable by adopting a healthy diet and by brushing twice daily and flossing.

The purpose of cleaning teeth is to prevent decay or dental caries (cavities or holes in the teeth) and gum disease that can cause tooth loss. Cleaning teeth removes fermentable sugary and carbohydrate food debris that forms dental plaque, a coating on the teeth in which bacteria live and produce acid. The acid causes caries by stripping the minerals calcium and phosphate from the protective enamel covering of the teeth.

Frequently eating sugary foods that stay in the mouth for long periods e.g. sugar-sweetened confectionery can increase the risk of caries.<sup>2</sup> Studies show that the more free sugars eaten, and the greater the frequency of eating them, the more dental caries result in all age groups.<sup>3</sup> Reducing intake of sugars to the internationally recommended level of no more than 5-10% of daily calories decreases caries in children and adults.<sup>4</sup>

### Helping prevent dental caries

Unlike free sugars and other fermentable carbohydrates, low/no calorie sweeteners, sometimes referred to as intense sweeteners, are non-cariogenic which means they do not cause dental plaque. Therefore, low/no calorie sweeteners do not contribute to the development of dental caries, or compromise oral health.<sup>5</sup>

Reviewing the scientific data in 2011, the European Food Safety Authority (EFSA) concluded that there is sufficient scientific information to support the claim that:

Intense sweeteners contribute to maintenance of tooth mineralisation by decreasing tooth demineralisation if consumed instead of sugars<sup>6</sup>, thereby helping maintain healthy teeth and prevent dental caries.

#### **Contributing to a healthier food environment**

By being non-fermentable, and therefore incapable of producing dental caries, low/no calorie sweeteners are tooth-friendly ingredients with dental benefits that can add sweetness and replace sugars not only in food, drink and sugar-free chewing gum, but also in healthcare products such as toothpaste and mouth washes. Low/no calorie sweeteners can also make medications and chewable vitamins more palatable for children.<sup>7</sup>

**The FDI World Dental Federation supports replacement of sugars with non-cariogenic low/no calorie sweeteners sugar substitutes to reduce the risk of dental caries.<sup>8</sup>**

At a time when oral diseases are among the most prevalent and preventable non-communicable diseases worldwide, and one of the public health objectives of sugar reduction, low/no calorie sweeteners can make a valuable contribution to a healthier food environment.

#### **References**

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