



LETTERS

NON-SUGAR SWEETENERS AND HEALTH

Sweeteners are added to modify consumer behaviour

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The meta-analysis by Toews and colleagues indicates that artificial sweeteners are safe to consume, but their uses go beyond sugar substitution and calorie reduction.^{1,2} Artificial sweeteners allow the cheaper and more efficient production of highly processed foods with long shelf lives and enable the formulation of new sweet products.

Sweeteners such as sucralose or aspartame are 200-600 times sweeter than sugar. Novel candy products and beverages often contain sugar and artificial sweeteners together, with different combinations of nutritive and hedonic effects. The consumption of artificial sweeteners, and of products combining sugars and artificial sweeteners, has strongly increased.³ Children are known to seek out more highly sweetened products, so the effects of early exposure on future consumption of processed foods and their health effects must be investigated.⁴

Artificial sweeteners are added to products that traditionally have not been sweetened or were sweetened to a much lower degree. We found that newly introduced snus products, a form of smokeless tobacco, contain much higher levels of artificial sweeteners than confectionery products and older smokeless products.⁵ In some cases, these products are so strongly sweetened that they are significantly sweeter than their weight in sugar. We also found artificial sweeteners in the mouthpieces and wrappers of flavoured cigarillos strongly preferred by adolescents.⁶ Sweetness is known to suppress bitter taste perception and irritation associated with tobacco use,⁷ suggesting that artificial sweeteners are added by tobacco manufacturers to facilitate use initiation and transition to tobacco addiction. These examples show that artificial sweeteners are not always

used for calorie reduction but are added strategically to modify consumer behaviour.

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