

Does sweetness exposure drive 'sweet tooth'?¹



The Purpose:

To provide an updated review of the evidence that examines whether exposure to sweet foods or beverages influences subsequent general liking for sweetness ("sweet tooth") in adults and children.

There is a consensus that high sugar consumption is linked to weight gain and metabolic disease². However, exposure to sweetness in the diet does not appear to contribute to obesity or energy intake.³⁻¹¹

The belief is that continued exposure to sweet foods, beverages, or low-energy sweeteners may lead to a heightened preference for sweetness, known as a "sweet tooth." This belief, although counterproductive to public health initiatives, has shaped current guidance suggesting reducing the consumption of sweet-tasting foods and beverages regardless of the source of sweetness.¹²⁻¹⁶ However, these views often lack reference to empirical research or reviews.

The Narrative Review*

*(aimed at identifying and summarising what has previously been published)



Systematic reviews

Three systematic reviews investigated the relationship between sweetness exposure and subsequent preferences.^{11,17,18}



Recent intervention trials

Fifteen intervention studies were identified that look into the effects of exposures to sweet vs non-sweet stimuli.¹⁹⁻³¹



Recent longitudinal trials

Three longitudinal cohort studies; two in infancy and one in adolescents investigated the associations of sweet taste exposure with liking.³²⁻³⁴

The Results:



Sweetness exposure does not promote subsequent liking for sweetness ("sweet tooth") in adults and children.

In the short-term, consumption of sweet foods tends to lead to reduced desire for sweet foods (a phenomenon known as sensory-specific satiety).



Early exposure to sweet foods and drinks, in infancy and adolescence, does not lead to increased preference for sweet tastes later in life.

How much people like sweet taste is very individual; some people have a sweeter tooth than others.¹¹



The Conclusion:

While it is widely assumed that exposure to sweetness stimulates a greater liking and desire for sweetness, this is not supported by the current-available research summarised in this narrative review.

On the contrary, at least in the short-term, sweetness exposure consistently suppresses the desire for sweetness.

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