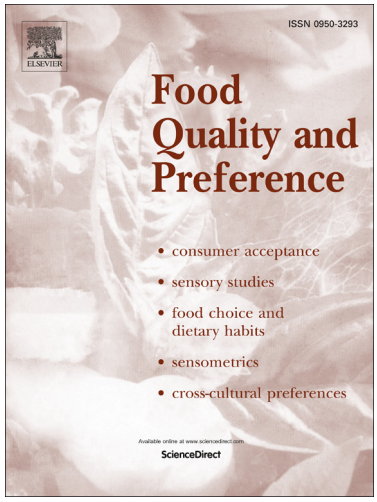

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Do healthy diets differ in their sensory characteristics?

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Abstract

The relationship between sensory characteristics of foods, diets and weight status is not well established. However, such knowledge could assist in better understanding food choices and inform strategies to improve diet quality. The objectives of this study were to examine the sensory characteristics of diets varying in healthiness and to explore differences by demographics, weight status and diet quality.

Data were captured using the online CSIRO Healthy Diet Score survey, including 38 questions on the frequency and quantity of foods consumed, facilitating the calculation of an overall diet quality score out of 100. Data from 145,975 Australian adults are reported.

Sensory characteristics of 105 foods and beverages representative of the survey's food groups were described using a trained sensory panel in terms of basic tastes, fatty mouthfeel and flavour strength. Average sensory scores (weighted by frequency of consumption) were calculated for each food group question. Reported intake (in serves) was multiplied by the sensory scores for each food group consumed to estimate the total sensory value of the diet.

Higher diet quality was associated with higher sweet and bitter scores, but a greater proportion of this sweetness was from healthy core foods rather than discretionary foods.