Parents' reported food preparation time is inversely associated with energy density

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Research to be presented at the Annual Meeting of the Society for the Study of Ingestive Behavior (SSIB), the foremost society for research into all aspects of eating and drinking behavior, suggests that the amount time parents spend on food preparation at home influences children's food intake decisions made in the laboratory without parental supervision.

"In general, research shows that children tend to eat inadequate amounts of nutrient-rich foods while eating large amounts of sugary and fatty foods," Shehan said. "It's encouraging to see that parents can possibly affect the quality of their children's food choices outside the home by spending more time cooking."

The main findings showed that children whose parents reported more time spent on food preparation at home independently chose to eat meals that were lower in energy density (a measure of calories per gram) than children whose parents reported less food preparation time. In other words, the children whose parents reported more time on food preparation tended to make healthier food choices in the lab than children whose parents spent less time at home on food preparation, even without parental supervision.

The study, conducted through Penn State's Department of Food Science and Department of Nutritional Sciences, involved 61 children between ages 4 and 6 and their parents. Each family in the study participated in two laboratory visits, where children tasted and rated their liking of a

variety of foods and were then given unlimited access to these foods without adult instruction or interference. Children were allowed to eat as much or as little of any of the foods presented, which included highly energy dense foods such as chicken nuggets and chocolate chip cookies, as well as lower calorie foods such as grapes and broccoli. Meanwhile, parents completed questionnaires addressing various topics including their home food environment, their child's food preferences and habits, and their family's socioeconomic status.

To elucidate the neural mechanisms of such age-related changes in taste preference and sensitivity, electrophysiological experiments examined taste response characteristics of chorda tympani nerves. These nerves mediate gustatory information from the tongue to the brainstem. The researchers observed no significant differences in activity of the chorda tympani nerves by taste stimuli across the different age groups.

This research suggests parental home food preparation may influence children's food intake patterns, even when children are eating outside the home. Future research studies are needed to see whether encouraging increased amounts of home food preparation or teaching parents food preparation skills will improve children's eating habits.

"Even after controlling for family income and whether or not children had a parent at home full time, we found that children whose parents spend more time cooking make better choices," Shehan added. "Our food preferences develop early in life, so getting young children to eat nutritious foods can help them stay healthy in the long run.

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