

Eating more soy foods could improve thinking and attention in kids

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A new study has found that school-aged children who consumed more isoflavones from soy foods exhibited better thinking abilities and attention. These findings pave the way for future research aimed at

unraveling how soy foods can positively impact children's cognitive abilities.

Isoflavones are naturally occurring compounds found in various plants, particularly soybeans and [soy products](#). Although previous research in adults has suggested that soy isoflavones can improve memory, the benefits haven't been studied well in children.

"Soy foods are often not a regular part of children's diets in the United States," said Ajla Bristina, a neuroscience doctoral student at the University of Illinois Urbana-Champaign. "Our study adds evidence of the importance of nutrients found in soy foods for childhood cognition."

Bristina will present the findings at [NUTRITION 2024](#), the annual meeting of the American Society for Nutrition, held June 29–July 2 in Chicago.

To examine the potential benefits of soy isoflavones, the researchers examined previously available data from a cross-sectional study that included 128 children ages 7 to 13. They used information from 7-day diet records to calculate each child's average dietary intake, including the amounts of macronutrients, micronutrients, vitamins and isoflavones consumed.

To assess the children's general intellectual ability, the researchers used a set of pencil and paper tests adjusted for grade level. They also measured attentional abilities using a computerized task known as the flanker task while electroencephalographic (EEG) activity was recorded and used to measure information processing speed and attention.

"No other studies have examined the association between soy isoflavones and attentional abilities using EEG or similar measures to record [electrical activity](#) generated by the brain," said Bristina.

Overall, the analysis revealed that the children in the study tended to consume low amounts of isoflavone-containing soy foods. However, those who did consume more soy foods showed faster responses during the attentional tasks and exhibited faster processing speed. No association was observed between soy isoflavone intake and general intellectual ability.

"The children in our study consumed an average of 1.33 mg of isoflavones per day, which while relatively low, aligns with previously reported values for the United States," said Bristina. "Soy consumption for individual participants ranged from 0 to 35 mg/day. To put this into perspective, an 8 fl. oz serving of soy milk provides about 28 mg of isoflavones, a serving of tofu provides about 35 mg and half a cup of steamed edamame provides about 18 mg of isoflavones."

Bristina says that snacks like roasted edamame, soynuts or soymilk are a good way to incorporate more soy into the diet. Tofu, tempeh or soy-based nuggets are also good options for meals.

"Correlational studies like this are only the first step," said Bristina. "To better understand the effects of eating soy foods on children's cognitive abilities and the precise amount of [isoflavone](#) intake necessary to elicit faster response times will require intervention approaches." To find out more, the research team recently began a clinical trial examining the effects of soy foods on thinking abilities, sex hormones, metabolic health and gut health.

More information: Bristina will present this research at 8:12-8:24 a.m. CDT on Tuesday, July 2, during the Nutritional Neuroscience: Nutritional Effects on Cognition and Disease Severity Across the Lifespan session in McCormick Place ([abstract](#); [presentation details](#)).

Provided by American Society for Nutrition

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