

Reducing Kids' Salt Intake May Lower Soft Drink Consumption

ScienceDaily — Children who eat less salt drink fewer sugar-sweetened soft drinks and may significantly lower their risks for obesity, elevated blood pressure and later-in-life heart attack and stroke, researchers reported in the print and online issue of Hypertension: Journal of the American Heart Association.

Previous studies have shown that dietary salt intake increases fluid consumption in adults. But researchers at St. George's University of London, England, are the first to examine whether the same is true in children.

"Sugar-sweetened soft drinks are a significant source of calorie intake in children," said Feng J. He, M.D., lead author of the study. "It has been shown that sugar-sweetened soft drink consumption is related to obesity in young people. However, it is unclear whether there is a link between salt intake and sugar-sweetened soft drink consumption."

Dr. He and colleagues analyzed data from the National Diet and Nutrition Survey (NDNS) in Great Britain, conducted in 1997 in a nationally representative sample of more than 2,000 people between 4 and 18 years old. Among the participants, more than 1,600 boys and girls had salt and fluid intake recorded using a seven-day dietary record, with all food and drink consumed weighed on digital scales.

"We found that children eating a lower-salt diet drank less fluid," said Dr. He, a cardiovascular research fellow at St. George's. "From our research, we estimated that 1 gram of salt cut from their daily diet would reduce fluid intake by 100 grams per day." The researchers also found that children eating a lower-salt diet drank fewer sugar-sweetened soft drinks. From their research, they predicted that reducing salt intake by 1 gram each day would reduce sugar-sweetened soft drink consumption by 27 grams per day, after considering other factors such as age, gender, body weight and level of physical activity.

"If children aged 4 to 18 years cut their salt intake by half (i.e., an average reduction of 3 grams a day), there would be a decrease of approximately two sugar-sweetened soft drinks per week per child, so each child would decrease calorie intake by almost 250 kcal per week," Dr. He said. "Not only would reducing salt intake lower blood pressure in children, but it could also play a role in helping to reduce obesity."

In previous studies, researchers found that a modest reduction in dietary salt intake lowers

blood pressure in children, and a low-salt diet during childhood may prevent the development of high blood pressure later in life (Reference: He FJ, MacGregor GA. Importance of salt in determining blood pressure in children: meta-analysis of controlled trials. *Hypertension*. 2006;48:861-869).

The new research suggests that reduced salt intake could also help decrease childhood obesity, through its effect on sugar-sweetened soft drink consumption.

"Both high blood pressure and obesity increase the risk of having strokes and heart attacks," Dr. He said. "It is, therefore, important for children to eat a low-salt diet to reduce their risk of having a stroke or a heart attack later in life. All physicians should give their patients appropriate advice on how to reduce salt in their diet."

Dr. He recommends that parents check labels, choose low-salt food products and not add salt during cooking and at the table.

She also urges consumers to challenge the food industry to make a gradual and sustained reduction in the amount of salt added to children's food products that have added salt. In most developed countries, about 80 percent of salt intake is from salt already added to food by the food industry. Reducing salt would not necessarily impact food taste, she said.

"Small reductions in the salt content of 10 percent to 20 percent cannot be detected by the human salt taste receptors and do not cause any technological or safety problems," Dr. He said.

In a related *Hypertension* editorial, Myron H. Weinberger, M.D., Indiana University Medical Center, Indianapolis, wrote that reductions in salt and sweet-beverage consumption among children, coupled with an increase in physical activity, "could go a long way in reducing the present scourge of cardiovascular disease in our industrialized society. Obviously, each step in this progression requires further definition and confirmation. This presents a formidable challenge as we move into the 21st century."

Dr. He's co authors are: Mrs. Naomi M. Marrero and Professor Graham A. MacGregor.

Adapted from materials provided by American Heart Association.

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