



AAP continues to recommend fluoride following new study on maternal intake and child IQ

by Melissa Jenco, News Content Editor

The Academy continues to recommend children drink fluoridated tap water despite a new study linking fluoride intake among pregnant women with a small dip in their children's IQ.

"There are thousands of articles pointing to the safety of community water fluoridation and we need to continue to look at the impacts, but this study doesn't change the benefits of optimally fluoridated water and exposure to fluoride," said Patricia A. Braun, M.D., M.P.H., FAAP, professor of pediatrics at the University of Colorado and chair of the AAP Section on Oral Health Executive Committee.

Researchers measured fluoride levels in the urine of 512 pregnant women in Canada during each trimester and collected self-reports of daily fluoride intake from water and other beverages for 400 pregnant women. Their children's IQ was assessed at ages 3 to 4 years.

Adjusted results showed that a 1 milligram per liter increase in maternal urinary fluoride was associated with a 4.5-point lower IQ score in boys. There was no significant impact for girls, according to the [study in JAMA Pediatrics](#). In the group that reported its fluoride intake, each additional milligram was linked to a 3.7-point lower IQ score in boys and girls.

"This suggests the possible need to reduce fluoride intake during pregnancy," authors wrote.

Dr. Braun and Aparna Bole, M.D., FAAP, associate professor of pediatrics at Case Western Reserve University School of Medicine and chair of the AAP Council on Environmental Health Executive Committee, said the results of the study are difficult to interpret given that the IQ difference was small and in one group it only appeared in boys. In the group where an association was seen for boys and girls, the fluoride intake was self-reported, which is less reliable. They also stressed the study did not look at children's fluoride intake, only that of pregnant women.

The Academy continues to recommend children use age-appropriate amounts of fluoride toothpaste and drink fluoridated tap water to protect teeth from painful damage. Optimum fluoridation levels are continually re-evaluated. Those living in communities without fluoridated water can supplement with dietary fluoride.

"The burden of dental caries is enormous in our patients. It's also a big burden in pregnant women ... and we have plenty of evidence about the efficacy of community water fluoridation in reducing that burden of caries," Dr. Bole said.

The American Dental Association agreed, saying it "remains committed to fluoridation of public water supplies as the single most effective public health measure to help prevent tooth decay." It said it welcomes the new study and would like to see "if the findings can be replicated with methods that demonstrate more conclusive evidence."

The American College of Obstetricians and Gynecologists, which stresses the importance of good oral health during pregnancy, [continues to recommend](#) women use fluoridated toothpaste. It will consider any new evidence next time it reviews its guidance.

In the meantime, parents concerned about a child's IQ may consider that dental disease causes children across the country to miss over 50 million hours of school each year, according to Dr. Braun.



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"We absolutely want kids to be in school and able to concentrate without pain," Dr. Braun said, "so they can optimize their learning."

Resources

- [AAP clinical report "Fluoride Use in Caries Prevention in the Primary Care Setting"](#)
- [AAP Campaign for Dental Health](#)
- [Information for parents from HealthyChildren.org on fluoride](#)