

# Associations between longitudinal beverage intakes and adolescent caries

25 March 2018

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At the 47th Annual Meeting of the American Association for Dental Research (AADR), held in conjunction with the 42nd Annual Meeting of the Canadian Association for Dental Research (CADR), Teresa A. Marshall, University of Iowa College of Dentistry, Iowa City, presented an oral session titled "Associations Between Longitudinal Beverage Intakes and Adolescent Caries." The AADR/CADR Annual Meeting is in Fort Lauderdale, Fla. from March 21-24, 2018.

"Sugar-sweetened beverages (SSB) are the most relevant dietary risk factor for caries in young children, but there has not been as much research done on adolescent caries. Our objective was to assess associations between longitudinal beverage intakes and adolescent caries experience, adjusting for known caries-preventive factors," said Marshall.

Area-under-the-curve daily beverage and fluoride intakes of Iowa Fluoride Study participants were calculated for ages 0.5-17 years from questionnaire-reported intakes of milk, 100% juice, sugar-sweetened beverages (SSB) and water-based sugar-free beverages. Dental exams were completed when the participant reached 17 years old.

The results show that higher SSB intake and lower brushing frequency were significant predictors of the caries. In multivariable models including all beverages, higher SSB and lower juice intakes were also significant predictors of caries.

"The observed associations of [sugar-sweetened beverages](#) and juice with caries are consistent with previous studies. The relationship between SSB and caries was reduced by tooth brushing and fluoride intake, and suggests an association between beverage intakes and oral health behaviors. To accurately estimate the effect of SSB on caries, future studies should adjust for preventive factors including brushing frequency

and [fluoride](#) intake," said Marshall.

Provided by International & American Associations for Dental Research

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