

FOR IMMEDIATE RELEASE
August 12, 2025

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Arginine Dentifrices Significantly Reduce Childhood Caries

Alexandria, VA – The International Association for Dental, Oral, and Craniofacial Research (IADR) and the American Association for Dental, Oral, and Craniofacial Research (AADOCR) have announced the publication of [a new study](#) in *JDR Clinical & Translational Research* that demonstrates that arginine dentifrices reduce dental caries in children with active caries as much as, or more than, a sodium fluoride dentifrice, depending on the arginine concentration.

Dental caries remain a significant oral health burden globally. Scientific evidence has demonstrated the dose-dependent, anticaries action of fluoride; however, more effective, comprehensive, and alternative prevention strategies should be investigated. The study, “Arginine Dentifrices and Childhood Caries Prevention: A Randomized Clinical Trial” by Wei Lin, Sichuan University, et al. carried out a two-year, phase III, double-blind, three-arm, parallel-group, randomized controlled trial from April 15, 2019 through March 12, 2022 across three centers in China. Six thousand children aged 10–14 with two or more active caries lesions were assigned one of three study dentifrices: 8.0% arginine, 1.5% arginine, and 0.32% NaF as a positive control. The primary efficacy outcomes were incremental DMFS (decayed, missing, and filled surfaces) and DMFT (decayed, missing, and filled teeth) caries indices scores after two years of product use.

After two years, the 8.0% arginine-containing dentifrice demonstrated a statistically significant 26.0% reduction in DMFS and 25.3% in DMFT scores vs. the 0.32% NaF control. No statistical difference was measured between the 1.5% arginine-containing dentifrice and the 0.32% NaF control in DMFS and DMFT. This clinical study confirms that depending on the concentration, arginine dentifrices are as effective, or more effective, than a sodium fluoride dentifrice in providing anti-caries protection in children with active caries.

About *JDR Clinical & Translational Research*

JDR Clinical & Translational Research (JDR CTR) is a peer-reviewed, quarterly journal that encompasses all areas of clinical and translational research in the dental, oral, and craniofacial sciences. Launched by IADR and AADOCR, *JDR CTR* provides a resource for clinicians, scientists, academics, researchers, and policy makers across the entire spectrum of the dental community. Follow *JDR CTR* on Twitter (X) [@JDRClinTransRes](#).

About IADR/AADOCR IADR is a nonprofit organization with a mission to drive dental, oral, and craniofacial research for health and well-being worldwide. IADR represents the individual scientists, clinician-scientists, dental professionals, and students based in academic, government, non-profit, and private-sector institutions who share our mission. AADOCR is the largest division of IADR. Learn more at www.iadr.org.

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