

Research shows water fluoridation is safe for children

October 10 2022



Credit: Unsplash/CC0 Public Domain

Research from The University of Queensland has found no link between community water fluoridation and adverse effects on children's brain development.

Professor Loc Do from UQ's School of Dentistry said the study examined the difference between the [brain development](#) and function of

children who'd been exposed to fluoridated water in early childhood with those who weren't.

"We found emotional and behavioral development, and functions such as memory and [self-control](#), were at least equivalent to those who had no exposure to fluoridated water," Professor Do said.

"In other words, there was no difference in [child development](#) and function related to fluoridated water.

"This finding shows that consuming water with fluoride at levels used for public supplies in Australia is safe and it supports continuing and expanding fluoridation programs."

Currently, approximately 90% of the Australian population has access to fluoridated water, although in Queensland it is 71%. Many regional Queensland areas and Aboriginal and Torres Strait Islander communities are not covered by a fluoridation program.

"A small but vocal group of people sometimes claims that water fluoridation can have adverse neurodevelopment effects, especially in young children," Professor Do said.

"This concern can impact community and public health support for the practice, but our research provides reassurance that it is safe and supports its expansion into more communities.

"This is an important message because fluoride is extremely effective in preventing [tooth decay](#) and its use in water and toothpaste is credited with significant improvements in child [dental health](#) in Australia."

Dental caries (also known as tooth decay or dental cavities) is the most common chronic childhood disease worldwide causing pain and

infection and can lead to tooth extraction.

The UQ study followed up child participants of Australia's National Child Oral Health study 2012–2014 when they were aged 12 to 17 years. It measured their emotional and behavioral development using a Strengths and Difficulties Questionnaire and executive brain function using the Behavior Rating Inventory of Executive Function—both instruments widely used in population health surveys.

The study is a collaboration between The University of Queensland, University of Adelaide and University of Western Australia in Australia, along with the University of Bristol in the U.K.

The study is published in the *Journal of Dental Research*.

More information: L.G. Do et al, Early Childhood Exposures to Fluorides and Child Behavioral Development and Executive Function: A Population-Based Longitudinal Study, *Journal of Dental Research* (2022). [DOI: 10.1177/00220345221119431](https://doi.org/10.1177/00220345221119431)

Provided by University of Queensland

Citation: Research shows water fluoridation is safe for children (2022, October 10) retrieved 26 April 2024 from <https://medicalxpress.com/news/2022-10-fluoridation-safe-children.html>

This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.