February 26, 2026

Administrator Lee Zeldin
U.S. Environmental Protection Agency (EPA)
Office of Ground Water and Drinking Water

Re: EPA-HQ-OW-2025-3823; FRL 13191-01-OW: Review of Science on Fluoride in Drinking Water: Preliminary Assessment Plan and Literature Survey

On behalf of the California Dental Association (CDA), representing 27,000 member dentists throughout the state, we write to share recommendations regarding the EPA's plans to review the literature on fluoride in drinking water. Thanks in large part to community water fluoridation, childhood cavities decreased 40-70% after water fluoridation was introduced in communities over 80 years ago. Subsequently, half of all U.S. children ages 5 to 17 have never had a cavity in their permanent teeth. Fluoride is nature's cavity fighter and naturally occurs in all water sources. As EPA reviews the science of fluoride in drinking water, CDA encourages you to consider the latest population studies and include the benefits of optimal fluoride concentrations in the assessment.

CDA strongly supports the adjustment of drinking water to optimal concentrations of fluoride, which is between 0.6-1.0 mg/L. The overwhelming body of evidence supports that fluoride ingested at this level prevents dental caries without any side effects. When evaluating any risks associated with fluoride in drinking water, the concentration of fluoride must be considered and the evidence weighed appropriately. CDA requests that EPA include the following studies in their assessment:

1) Do, 2025 – "Early Childhood Exposures to Fluorides and Cognitive Neurodevelopment: A Population-Based Longitudinal Study" – published in Journal of Dental Research
2) Warren, 2025 – "Childhood Fluoride Exposure and Cognition Across the Life Course" – published in Science Advances

The robust, peer-reviewed, longitudinal studies assess the caries-prevention program of fluoride and the cognitive neurodevelopment of children. Both studies found *no decreases* in cognitive performance or functioning. In fact, for each new measure of adolescent cognitive performance, students performed better if they had been exposed to sufficient levels of fluoride either throughout or partially during childhood.

CDA also urges EPA to consider the fluoride concentrations cited in publications about fluoride in drinking water. For example, the NTP Monograph on fluoride and neurocognition clearly states the systematic review does not apply to water fluoridation at 0.7 mg/L as practiced in the U.S., Canada and Australia. The report found only an

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association, not causation, with fluoride levels greater than 1.5 mg/L, which naturally occurs China, India and other such countries.

Minimizing confirmation bias is a key aspect of assessment and literature review. CDA urges EPA to clearly define the hazard-identification framework ahead of the assessment rather than prematurely presuming the occurrence of any adverse health effects. Particularly, how will the assessment determine whether fluoride exposure at currently recommended concentrations presents a neurodevelopmental hazard? Null or negative findings for “side effect” should still be considered in the evidence review and reflected in the weight of evidence. However, studies with significant limitations, such as small population sizes or limited one-time IQ tests, should cautiously be considered. These studies are potential sources for data distortion and often not generalized to population-level decision-making.

High-quality, longitudinal, population-based studies from countries with similar fluoride levels as the U.S. should be prioritized in the review of science on fluoride in drinking water, and the important, positive impact of water fluoridation in reducing dental caries should not be excluded. Additionally, the full framework of the assessment should appropriately weigh the literature and be shared transparently with the public.

Thank you for your dedication to evaluating the evidence and considering CDA's recommendations during the next phase of your assessment.

Sincerely,

Robert J Hanlon Jr.

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