

## Fluoride in Drinking Water: EPA's Gold Standard Science in Action

On January 22, 2026, U.S. Environmental Protection Agency (EPA) announced a *Preliminary Assessment Plan and Literature Survey* for its ongoing review of scientific research linking health risks to fluoride in drinking water. Following [Administrator Zeldin's call to action in April 2025](#), the agency jumpstarted its scientific review under the Safe Drinking Water Act, ahead of schedule. EPA's review of the latest research follows gold-standard science as the agency supports a whole-of-government approach to address public concerns with fluoride.

### What EPA is Doing Now

EPA is developing a new human health toxicity assessment that will review scientific information on the potential health risks of fluoride in drinking water. EPA is doing this using gold standard science – following a systematic review process to evaluate studies examining the health effects of fluoride, including harmful effects on brain development, such as decreased IQ in children, and tooth development, specifically dental fluorosis. EPA's new toxicity assessment will thoroughly describe the state of the science on potential harmful health effects that are known to occur after exposure to fluoride. As the SDWA prohibits EPA from requiring the addition of any substance to drinking water for any preventative health care purpose, the potential health benefits of fluoride, such as cavity prevention, are not within the scope of the Agency's statutory authorities and this toxicity assessment. This assessment will be used to inform future decisions about potential revisions to the existing federal regulations on fluoride in drinking water under the Safe Drinking Water Act (SDWA), thus addressing concerns about children's health including developmental impacts. The results of this toxicity assessment will also be used to inform a whole-of-government approach to Making America Healthy Again, including [Centers for Disease Control and Prevention \(CDC\) recommendations](#) regarding adding fluoride to drinking water. The decision on whether or not to add fluoride to drinking water is made on a state or local basis; EPA does not make recommendations on adding fluoride to drinking water.

### Next Steps

On January 22, 2026, EPA released a Fluoride *Preliminary Assessment Plan and Literature Survey* for public comment. This is the next step in developing a new human health toxicity assessment on fluoride in drinking water based on gold standard science. EPA will consider the comments received during the development of the Systematic Review Protocol, the next step in the toxicity assessment process. The protocol will present detailed methods for conducting the next steps of the systematic review and will be used to develop the draft Fluoride Human Health Toxicity Assessment. The draft toxicity assessment will be released for peer review and public comment before finalizing.



## Systematic Review to Identify Gold Standard Science

EPA's systematic review process helps ensure that agency assessments are transparent, reproducible, and uphold scientific integrity. Using these structured methods is an excellent way to identify, select, assess, and summarize the findings of studies relevant to the assessment goals and scope and ensure consistency with Executive Order 14303, Restoring Gold Standard Science. It promotes incorporation of the best available, unbiased, peer-reviewed studies through broad literature searches in scientific databases and ensures skeptical review of the uncertainties and findings of individual studies, the overall body of health effects information, and the assumptions informing models and analyses used in the toxicity assessment to determine potential human health hazards. Additionally, EPA's systematic review process filters out conflicts of interest and requires collaboration and contributions by many subject matter experts, which further reduces potential for bias and error.

### Application of EO 14303 Tenets Throughout Systematic Review

Restoring Gold Standard Science Tenets (Sec 3 EO 14303)	Systematic Review Process						
	Problem formulation	Transparent documentation of SR processes & results	Study ID from peer reviewed literature databases	Use of studies agnostic of results	Evaluation of studies for sensitivity/potential bias	Evidence determination framework and documentation of uncertainties	Inter-disciplinary team
I. Reproducible	✓	✓	✓	✓	✓	✓	
II. Transparent	✓	✓	✓	✓	✓	✓	
III. Communicative of error & uncertainty	✓	✓	✓		✓	✓	
IV. Collaborative & interdisciplinary	✓	✓	✓	✓	✓	✓	✓
V. Skeptical of its findings & assumptions				✓	✓	✓	
VI. Structured for falsifiability of hypotheses	✓			✓	✓	✓	
VII. Subject to unbiased peer review		✓	✓	✓	✓	✓	
VIII. Accepting of negative results as positive outcomes	✓	✓	✓	✓	✓	✓	
IX. Without conflicts of interest			✓	✓	✓	✓	

Source: <https://www.whitehouse.gov/presidential-actions/2025/05/restoring-gold-standard-science/>

✓ = tenet is relevant to and explicitly used in the systematic review step

