



Viewpoint

Removing Fluoride From Water? An Oral Health Crisis Unfolds

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In the mid-20th century, enlisted US service members routinely failed their draft physical examinations—not because they lacked strength or resolve but because they lacked sufficient nondiseased teeth. That finding sparked the first implementation of community water fluoridation, the creation of a National Institute of Dental Research (now the National Institute for Dental and Craniofacial Research), and one of the most consequential expansions of pediatric health policy in US history—the establishment of a pediatric Medicaid dental benefit. Policymakers recognized that early prevention was essential for both health and national strength.

These efforts contributed to the ability for continuing generations to maintain optimal oral health throughout childhood. For those who choose to serve as they enter adulthood, the US Department of Defense continues to prioritize dental health as a key component of overall military readiness, with a requirement for fluoridation of water supplies on military bases. Today, we risk reversing the progress made for our service members and coming generations. This would not be through neglect but by design if we eliminate one of the 20th century's most effective public health interventions—community water fluoridation.

While community water fluoridation has been part of our readiness infrastructure, it silently protects people throughout the lifespan—most importantly, children who cannot regularly visit a dentist or do not have toothpaste or toothbrushes. Exposure to fluoride through foods and beverages from fluoridated communities even benefits communities without fluoridated water nearby, producing a halo effect.¹ Every major health agency and health professional organization, including the American Medical Association, American Dental Association, American Academy of Pediatrics, American Academy of Pediatric Dentistry, World Health Organization, and many more, supports the safety and benefits of water fluoridation at US-recommended levels.

However, fluoride has recently been misrepresented in the media and by some national leaders. These prominent voices have conflated high naturally occurring exposure toxic effects in other countries with safe levels of community water fluoridation in the US, distorting public understanding. Studies that are irrelevant to fluoride's use in the US are driving policy within our borders. Multiple states and local jurisdictions have introduced or passed measures to ban or limit water fluoridation, despite strong objections from public health experts, dentists, pediatricians, and other physicians. These efforts are misplacing blame on community water fluoridation for modern health challenges while disregarding critical information about its monitoring and safety profile at US-recommended levels.

Most publicized misinformation has centered on the possible effect of fluoride exposure on children's neurodevelopment and behavioral challenges. The National Toxicology Program's Monograph on Fluoride and Neurocognition² has been widely misinterpreted as an indictment of water fluoridation, even though the authors state in bold print that the report does not address water fluoridation at the low levels used in the US and Canada. Authors could only state with moderate confidence that higher natural fluoride levels in other countries were associated with an IQ decrease. By their own admission, three-fourths of the studies on which they based their findings were of low quality and at high risk of bias. Another article in *JAMA Pediatrics* tried to link a single maternal urinary fluoride sample during pregnancy with toddler behavior.³ It was widely discredited by both pediatricians and obstetricians for not using a scientifically valid measurement of fluoride as well as

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its failing to account for confounding factors that affect behavior. These and other poor scientific practices have been illuminated by experts while debunking erroneous claims.^{3,4}

Fluoride has been keeping dental disease at bay for more than 80 years in the US. The risk of too much fluoride occurring in the US is cosmetic—as fluorosis mostly results in staining of the teeth. While fluorosis is rare, health professionals work together to optimize total fluoride exposures and prevent it from happening.

Fluoridated water has drastically decreased the financial investment required by states, the federal government, and taxpayers for dental care in Medicaid. While dental caries remain one of the most common chronic conditions of childhood, it disproportionately impacts children in lower-income families,⁵ and only about one-half of children enrolled in Medicaid receive dental care each year. The benefits of fluoride impact low-income children the most.⁶ Fluoride is not merely a public health success story; it is a structural intervention that helps Medicaid keep up with a high-need pediatric population.

A recent study in *JAMA Health Forum* demonstrates how concerning the elimination of fluoridation could be: 25 million additional children will be experiencing dental caries, and nearly \$10 billion more will be spent over 5 years.⁷ If today's Medicaid funding allows for comprehensive dental care for 1000 children, increased decay from fluoride removal from water systems means that same budget might only cover 700—effectively cutting care for 300 kids. That is not just a budget cut. It is a values decision masquerading as policy neutrality. It quietly withdraws care from the most vulnerable while pretending nothing has changed.

We do not have to speculate. The answer from sound, scientific research is the same: removing water fluoridation leads to more cavities and higher treatment costs. In Juneau, Alaska, Medicaid-enrolled children experienced up to a 47% increase in cavity-related treatment costs within 9 years of fluoride cessation.⁸ In New York and Louisiana, children in nonfluoridated areas required more invasive care—including hospital-based procedures—and cost Medicaid significantly more per child. The message is consistent: when water fluoridation ceases, the rate of disease increases.⁹

With a flat or constrained Medicaid dental budget and more dental disease, our current system will reach capacity and not meet these increased needs. Managing the increased prevalence of dental disease that would follow water fluoridation removal will not just require more money—it will require more people. Many rural and low-income communities are already dental deserts, where few dental care professionals are located and staffing shortages are widespread.¹⁰ Increasing demand without increasing capacity is a recipe for longer appointment wait times, more untreated disease, and deepening oral health disparities. Simply put, the system cannot absorb the surge in decay from the removal of fluoride from community water systems.

At its core, fluoride benefits all people across the lifespan, but it is most critical for those without consistent access to clinical preventive care. Fluoridation is automatic, invisible, and free at the point of use—features rarely found in US health policy. Removing fluoride from water systems would widen gaps in dental disease between high-income and low-income families and create an oral health landscape that is more unequal, painful, and expensive than before.

The decision to maintain—or remove—fluoride from public water systems is not a scientific one alone. It is a policy choice with generational consequences. If we are serious about protecting children's health and creating a healthier workforce, then preserving community water fluoridation is not optional—it is essential.

Health care professionals should stand on the side of science and safety for our children by engaging with local communities to discuss fluoride's benefits. By doing so, we can help prepare a generation to be ready for service or work, preserve Medicaid dollars, and promote the health of all people in the community.

ARTICLE INFORMATION

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