Community Water Fluoridation Talking Points
Pediatricians & Health Professionals

As health professionals working for the well-being of children, you are a trusted source of information on children's health, including oral health. Although many people take for granted that community water fluoridation (CWF) is an effective and safe public health practice, some question or oppose it. As a primary medical or dental provider, you may receive questions from families and caregivers.

The AAP updated the policy statement, "Fluoride Use in Caries Prevention in the Primary Care Setting" in the December 2020 issue of *Pediatrics*.

Below we provide responses to the most commonly raised questions about CWF and provide links to additional information to share with others. (See also *Say This, Not That*, tips for talking about community water fluoridation.)

What is CWF and who regulates it?

Community Water Fluoridation (CWF)

Community water fluoridation is the adjustment of the fluoride that occurs naturally in *all* water to the correct amount to prevent tooth decay. In the U.S. that amount is 0.7mg/L, a level that is closely monitored.
Resources for health professionals: U.S. Public Health Service Recommendation
Resources for patients and families: Common Questions About Fluoride (Spanish)

Fluoride Additives

All water treatment additives, including fluoride products, must comply with national safety standards.

The quality and safety of fluoride additives are ensured by NSF/ANSI Standard 60, a program commissioned by the Environmental Protection Agency (EPA) and managed by NSF International. Standard 60 is a set of standards created and monitored by an independent committee of health experts. This committee provides regular reports to the EPA. More than 80% of fluoride additives are produced by U.S. companies, but no matter where they come from, Standard 60 certification operates worldwide and uses on-site inspections and independent analyses to verify quality and safety standards.
Resources for health professionals: Fluoride Safety: A Guide for Health Professionals (Spanish)
Resources for patients and families: Common Questions About Fluoride (Spanish)
Additional Resources: CDC-Water Fluoridation Additives

Regulation of Drinking Water

The Safe Drinking Water Act regulated drinking water and sets standards to ensure its safety. This Act also gives the U.S. Environmental Protection Agency (EPA) authority to set firm limits on the amount of fluoride in drinking water.
Resources for health professionals: Safe Drinking Water Act
Resources for patients and families: Fluoride in Drinking Water

Is CWF still necessary now that we have fluoridated toothpaste? Doesn't CWF benefit only children?

Fluoridation is proven to **prevent unnecessary dental disease** by 25% or more, reducing painful and costly decay in children AND adults. Just like cars have seat belts *and* air bags, fluoride in water ***adds* to protection** we get from fluoride in toothpaste and other dental products.
Resources for health professionals: Fluoride Safety: A Guide for Health Professionals (Spanish)
AAP Policy – Fluoride Use in Caries Prevention in a Primary Care Setting
Resources for patients and families: Is Toothpaste Enough?

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What is fluorosis and is it harmful?
Fluorosis is a change in the surface of the teeth, usually in the form of faint white markings. Dental fluorosis occurs only while the teeth are forming, before the age of 8 years. Mild dental fluorosis does not affect the function or health of the teeth. In fact, teeth with mild fluorosis are more resistant to cavities. The low risk of teeth forming with mild fluorosis must be weighed against the benefit of less tooth decay.
Resources for health professionals: Fluorosis Facts: A Guide for Health Professionals (Spanish)
Resources for patients and families: Fluorosis Facts: A Resource for Parents and Caregivers (Spanish)
Additional Resources: ADA Oral Health Topics-Fluorosis; CDC-FAQs for Dental Fluorosis

Is CWF harmful to health and brain development?
A wide variety of claims have been made linking fluoride with harms to health. An extremely large body of evidence on CWF has consistently demonstrated the effectiveness and safety of this public health measure.

In 2017, the National Toxicology Program, using state-of-the-art behavioral assessments and tissue analysis, completed a study in rats and "observed no exposure-related differences in motor, sensory, or learning and memory performance". Their findings were published in early 2018 in *Neurotoxicity Research*.

In recent years, a small group of studies has looked at possible associations between maternal fluoride intake and lower IQ scores in children. The findings of these studies have been inconsistent, causing researchers around the world to cast doubt on the scientific validity of the methodologies used and to call for more stringent approaches to replicating specific studies.

In 2020, the NTP released the second of two drafts of a monograph entitled *Systematic Review of Fluoride Exposure and Neurodevelopmental and Cognitive Health Effects*. The report was designed as an evaluation of the published literature looking at whether exposure to fluoride is associated with effects on neurodevelopment.

NTP asked the National Academies of Science, Engineering and Medicine (NASEM) to evaluate whether the evidence in its monographs supported the NTP's conclusion that "fluoride is presumed to be a cognitive neurodevelopmental hazard to humans." NASEM twice rejected these findings and, in its final review, found that the second draft "still falls short of providing clear and convincing documentation of the evidence to support its conclusions." NASEM reviewers cautioned that "the monograph cannot be used to draw conclusions about low fluoride exposure concentrations (less than 1.5 mg/L), including those in fluoridated drinking water systems."

At the recommended levels, fluoridation continues to play a role in safely and inexpensively preventing unnecessary dental disease in children and adults. The American Academy of Pediatrics continues to recommend fluoride use.

Resources for health professionals and families: What's being debated? , How to Read a Study About Fluoride or Fluoridation

Is it the role of government to 'medicate' the populace?
One role of government is to prevent injury and disease and to promote the health of the community. Our society respects individual rights at the same time that we enact certain public health policies for the *entire* community. Some opponents of fluoride criticize fluoridation as a form of "forced medication." Upon challenge, U.S. courts have consistently found that the practice is a legitimate way to further public health. Click here for more information on legal decisions by U.S. courts.

Is CWF a responsible use of tax-payer dollars?
While it would seem to save tax dollars, eliminating fluoridation costs society more in the long run. The typical **cost of fluoridating a local water system** ranges from 11 cents to $24.38 per person, per year. The **money this saves** families and the health care system ranges from $5.49 to $93.10 per person, per year. Across the U.S. including all systems that serve 1,000 people or more, every $1 invested in water fluoridation saves an *average* of $20. Click here for more information on cost savings.

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Is CWF environmentally friendly?
Opponents have raised concerns about the effect of fluoride on the environment and on sea life. Oceans contain naturally occurring fluoride at levels that are higher than those in community water supplies. There have been no scientifically validated studies linking harm to plant or animal life.

Conclusions:
Fluoride has met with opposition since its inception. Misinformation has played a significant role in sowing doubt about this common-sense practice. The AAP welcomes emerging science on fluoride and CWF and weighs new findings carefully. Our policies and recommendations are based on the best available evidence that is derived from research that conforms to sound scientific method.

In the minds of most health professionals, there is no debate about CWF. As new research emerges, we will continue to help children's health advocates put study findings in context and to understand the pros and cons of the measures we recommend.
Additional Resources: What's being debated?

KEY RECOMMENDATIONS FOR DISEASE PREVENTION FOR PARENTS AND FAMILIES
Please see A Guide to Children's Dental Health at HealthyChildren.org for more information for parents and families about oral health.

FLUORIDE AND INFANTS
Fluoridated water can be used to reconstitute infant formula. The issue for parents of infants to consider is the possibility of enamel fluorosis. A 2010 study published in the Journal of the American Dental Association (ADA) found that nearly all cases of dental fluorosis from formula mixed with fluoridated water were mild and concluded that "no general recommendations to avoid use of fluoridated water in reconstituting infant formula are warranted."
Additional Resources: HealthyChildren.org-FAQ: Fluoride & Children, CDC-Overview: Infant Formula and Fluorosis

MAJOR HEALTH AND MEDICAL ORGANIZATIONS SUPPORT CWF
The American Academy of Pediatrics (AAP) and many other major health, medical and dental organizations support**.** See What Respected Organizations and Experts Say about Water Fluoridation for endorsements from major organizations in the U.S. and abroad.