Community Water Fluoridation: What It Is, How It Works, and Why You Should Care

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January 29, 2014
Tooth decay remains the most common chronic childhood disease.
Tooth decay is expensive to treat

- Average annual dental expenditures for privately insured individuals:
  - 0-20 years old: $358
  - 21-64 years old: $582

- Preventable dental conditions were the primary diagnosis in 830,000+ visits to hospital ERs nationwide in 2009 — a 16% increase from 2006.
Tooth decay is expensive to treat

A person could spend more than $6,000 over a lifetime to deal with the consequences of a cavity in just one molar.
Tooth decay is preventable because of access to fluoride
What is Fluoridation?

Fluoridation is the adjustment of the fluoride in drinking water to the optimal level for reducing tooth decay.
In 1945, communities in Michigan, New York, and Ontario were the first to fluoridate their water.

Today, communities across the country adjust the level of fluoride in their water systems to protect public health.
Fluoridation Prevents Tooth Decay

U.S. Task Force on Community Preventive Services strongly recommends CWF

• Updated April 2013
Fluoridation Works Throughout the Lifespan

“Fluoridation is the single most effective public health measure to prevent tooth decay and improve oral health over a lifetime, for both children and adults.”

David Satcher, MD, PhD
Fluoridation reduces tooth decay about 25%
Fluoridation still works in the U.S.

... even in communities where children brush with fluoridated toothpaste and get fluoride treatments at the dentist.

National survey of 40,000 schoolchildren:

- Almost all toothpaste had fluoride
- Twice annual fluoride treatments were common

Findings:

- Regional data demonstrated “halo effect”
Fluoridation: Still Vital, After All These Years

“Community water fluoridation continues to be a vital, cost-effective method of preventing dental caries.”

Regina M. Benjamin, MD, MBA
Surgeon General (2009-2013)
Trends in Cavity-Free School Children
(Permanent Teeth)

Source: National Survey Findings
Fluoridation is Safe

• The Environmental Protection Agency (EPA) is responsible for regulating public drinking water and enforcing the Safe Drinking Water Act.

• The EPA does not have a position *per se* on the fluoridation, only on the level of fluoride in the drinking water.

• Fluoride occurs in U.S. water supplies at levels from 0.1 to 8.0 mg/L or parts per million (ppm).

• The EPA does not permit levels above 4.0 mg/L to be used for drinking water.
The National Research Council (NRC) has weighed and debated all the evidence.

- The EPA is guided by the National Research Council (NRC) for fluoride and other issues.
- No findings of the 2006 NRC report question the safety of fluoride at 0.7-1.2 mg/L.
- Know the four page Report in Brief.
- Future EPA action will address severe dental fluorosis, the well known adverse health effect of 2-4 mg/L, not the imagined health effects claimed by opponents.
No widely respected medical and health organizations oppose fluoridation.
Fluoridation is Equitable
Fluoridation is Cost-effective

Every $1 invested in water fluoridation

Saves $38 in unnecessary dental costs
Fluoridation is Cost-effective

“Fluoridation is the single most important commitment a community can make to the oral health of its children and to future generations.”

Dr. C. Everett Koop
US Fluoridation Rate
Community Water Fluoridation: The Top 10 and Bottom 10

The percentage of residents served by public water systems in each state who are receiving fluoridated water.*

72 million Americans who are served by public water systems lack access to fluoridated drinking water.

The CDC has recognized water fluoridation as one of "10 great public health achievements of the 20th century."†

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* Centers for Disease Control and Prevention, "2012 Water Fluoridation Statistic." Data covers only residents whose homes are connected to public water systems.
Despite progress, much work remains

About a third of Americans still don’t have access to fluoridated water
How Fluoride in water works

Sugar Bacteria

De-mineralizes enamel

Water + Fluoride + Saliva

Re-mineralizes enamel
"Halo Effect"

Shipped to non-fluoridated communities

Products processed in fluoridated communities
“Halo Effect”

Fluoridated Communities: Greatest Benefits

Non-fluoridated Communities: Some Benefits

Not as much difference
Fluorosis: Old Issue, Better Understanding

“Colorado Brown Stain”
Fluorosis: Old Issue, Better Understanding

Dental Fluorosis (severe)

Dental Fluorosis (mild)
Fluoridation Still Matters
What are we up against?
Be proactive and attuned to your community

• Find out who is in charge
• Establish yourself as an expert
• Educate your community
• Connect with partners
What happens here matters
Don’t be afraid to take the first step
National campaign to support local fluoridation efforts
The power of fluoridation

Adding fluoride to community water supplies reduces tooth decay significantly. Even if you brush with fluoridated toothpaste, you'll get a lot more cavity protection with fluoridated water. Surprised?

http://www.ilikemyteeth.org
“The materials produced by the Pew coalition have proven to be a great resource for fighting to preserve water fluoridation.”

– Florida dentist

“On Tuesday night, the town of Bradford voted to reinstate fluoridation, thanks in large part to the eloquent speech of one of the selectmen who had read your website. Also, I relied heavily on your website to put together a PowerPoint presentation . . . Thank you for your great work!”

– Vermont health official
Partners
@ILikeMyTeeth

#fluoride
Community water fluoridation, the adjustment of a naturally occurring mineral to a level demonstrated to have the greatest benefit, was named as one of the top ten health achievements of the 20th Century. Water fluoridation is the only oral health intervention that benefits everyone regardless of age or income level.

NNOHA fully supports the continued expansion of access to optimally fluoridated water.

http://www.nnoha.org/resources/advocacy/cwf/
Thank you!
Questions?
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Send an email to Mary McNamara,
mmcnamara@pewtrusts.org
with the words “Sign me up“ in the subject line.