



FLUORIDE

OVERVIEW

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WATER FLUORIDATION



Fluoride is a naturally occurring mineral found in almost all water. Naturally occurring fluoride is usually not enough to prevent tooth decay. Fluoride can be added to drinking water as a public health measure for reducing cavities. Fluoride works by stopping or even reversing the tooth decay process. Acid produced by bacteria in the mouth can create holes on the surface of the teeth. Fluoride helps to protect and rebuild the surface of the tooth and prevents cavities from forming.

Many communities adjust the fluoride concentration in the water supply to a level known to reduce tooth decay and promote good oral health. This practice is known as community water fluoridation. Community water fluoridation was first introduced 70 years ago. In that time, there has been a dramatic decline in tooth decay. The Centers for Disease Control and Prevention (CDC) named fluoridation of drinking water to prevent tooth decay as one of 10 great public health interventions of the 20th Century.

Before water fluoridation was common, most people over age 65 had lost most or all of their teeth. Seniors have benefited as fluoridation has expanded. Between 1971 and 2004, the percentage of seniors aged 65 to 74 who had lost their teeth declined from about 50 percent to only 24 percent.

Tooth decay is one of the most common chronic diseases among American children. Children living in communities where water is fluoridated have, on average, fewer decayed surfaces compared to similar children not living in fluoridated communities. However, fluoridation is not only good for children. Fluoride also plays a protective role against dental decay throughout life. As people grow older and experience more problems with gum recession, their risk of root decay increases. Fluoride makes the structure of the root surface more resistant to decay, allowing more people to keep their natural teeth for longer periods of time. Research shows fluoride reduces dental decay by 27 percent in adults, prevents needless infection, pain, suffering, and loss of teeth.

There is no scientific evidence that fluoridation of drinking water causes any harmful health effects. Specifically, fluoride does not cause cancer or intellectual disability.

FLUORIDATION FACTS

Studies have shown that older Americans living in fluoridated communities suffer lower rates of tooth decay.^{12, 14}

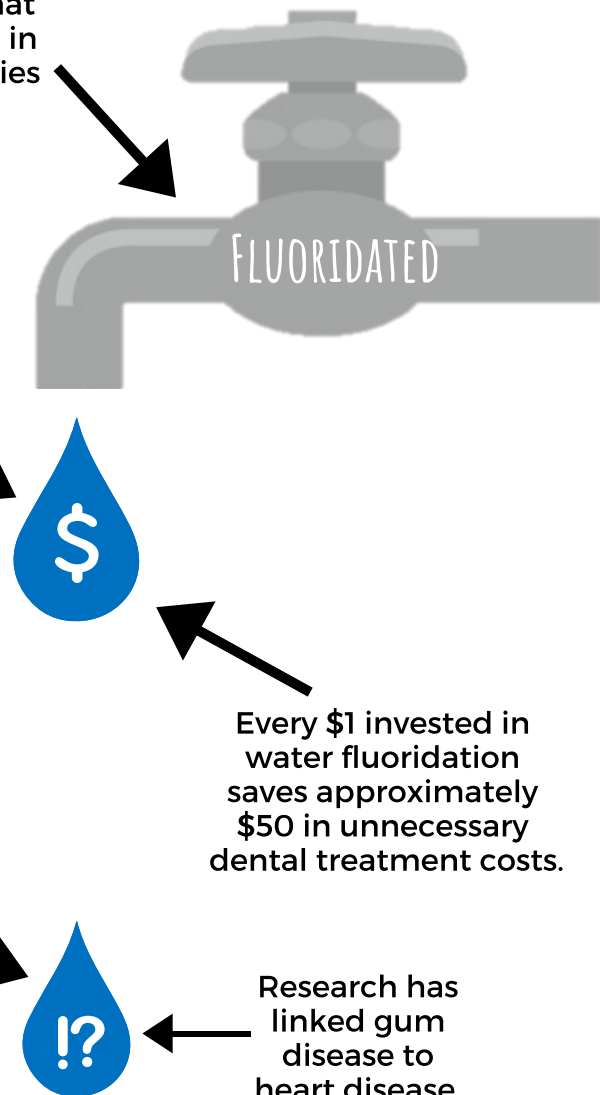
In Arkansas, a private foundation has agreed to pay all of the start-up costs for the any new community that will start fluoridating – meaning no taxpayer dollars will be needed.²

Employed adults lost more than 164 million hours of work each year due to oral health problems or dental visits.¹⁴

A 2008 study confirmed the hurdles faced by people who are missing front teeth – they are viewed as less intelligent and less trustworthy than people without a gap in their smile.³

Every \$1 invested in water fluoridation saves approximately \$50 in unnecessary dental treatment costs.

Research has linked gum disease to heart disease, diabetes, and stroke.⁵



The most respected medical and health organizations endorse water fluoridation as a safe, effective way to prevent tooth decay.

- The last five U.S. Surgeons General – representing administrations of both parties – have publicly endorsed fluoridation as a wise health strategy.
- The American Dental Association, the American Academy of Pediatrics and the American Medical Association are only a few of the many organizations that support fluoridation.
- The Arkansas Dental Association, Arkansas Children's Hospital and Arkansas Surgeon General Dr. Greg Bledsoe support water fluoridation.

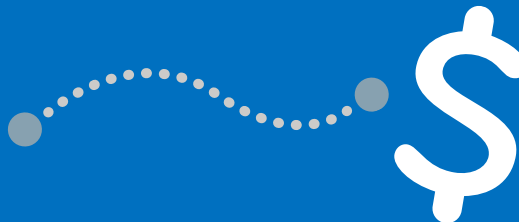
FLUORIDATION FACTS

**STUDIES CONFIRM THAT
FLUORIDATION REDUCES TOOTH
DECAY BY 20% TO 40%.⁷**



**Eighty-six percent of public water
systems in Arkansas are optimally
fluoridated, exceeding the Healthy
People 2020 objective target.**

The national average cost of filling
one cavity (\$145) is more than twice
the cost of providing optimally
fluoridated water to an individual
for a lifetime.⁹



**A North Carolina study found that children
with both poor oral health and general health
were more than twice as likely as their
healthier peers to perform badly in school.⁴**

**When Juneau, Alaska discontinued water
fluoridation in 2006, there was a significant
rise in the rate of dental disease, especially for
children ages 0-6 who were raised without the
benefit of fluoridated drinking water.¹⁴**

 **FLUORIDE**

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WATER & FLUORIDE

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