

Water Fluoridation: A Community Toolkit



Iowans
FOR ORAL HEALTH



INTRODUCTION

Oral health is important throughout a person's life. The Iowans for Oral Health Coalition supports water fluoridation because it is one of the most cost-effective strategies for communities to improve the oral health of their residents.

Fluoride exists naturally in virtually all water supplies. Fluoridation is simply adjusting fluoride to the optimal level that protects teeth from decay. Studies show that fluoridation reduces tooth decay and benefits people of all ages and income groups. Two studies released in 2010 strengthened the already substantial evidence that fluoridated water prevents cavities.

As an oral health advocate, the Iowans for Oral Health "Water Fluoridation: A Community Toolkit" is your resource on the health benefits, cost savings and media outreach on fluoridation. We encourage you to use this toolkit as you talk with friends, colleagues and opinion leaders within your community about water fluoridation.

For more information, visit us at IowansForOralHealth.com.

This toolkit is an adaptation of a document originally published by the Michigan Oral Health Coalition. The Iowans for Oral Health Coalition gratefully acknowledges their generosity in sharing these valuable materials.

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WHAT IS FLUORIDE?

5 QUICK FACTS

1. Fluoride comes from fluorine – one of the 15 most common elements found on earth.
2. Fluoride exists naturally in virtually all water supplies.
3. Fluoridation is simply adjusting fluoride to the optimal level that protects teeth from decay.
4. According to the Centers for Disease Control and Prevention (CDC), 92 percent of Iowans whose homes are connected to a community water system benefit from fluoridated water.
5. It is one of many health interventions we benefit from each day (e.g. Vitamin D in milk, iodine in table salt, folic acid in breads and cereals and chlorine in drinking water supplies and swimming pools).

BACKGROUND

More than 65 years ago – in January 1945 – Grand Rapids, Michigan, became the world's first city to adjust the level of fluoride in its water supply. Since that time, fluoridation has dramatically improved the oral health of tens of millions of Americans. Community water fluoridation is the single most effective public health measure to prevent tooth decay. The Centers for Disease Control and Prevention proclaimed community water fluoridation “as one of 10 great public health achievements of the 20th century.”

Fluoridation of community water supplies is simply the precise adjustment of the existing and naturally occurring fluoride levels in drinking water to a fluoride level recommended by the U.S. Public Health Service (0.7 parts per million) for the prevention of dental decay. Based on data from 2002, approximately 170 million people (over two-thirds of the population) in the U.S. are served by public water systems that are fluoridated.

Studies conducted throughout the past 60+ years have consistently shown that fluoridation of community water supplies is safe and effective in preventing dental decay in both children and adults. It is one of the most efficient ways to prevent one of the most common childhood diseases – tooth decay (five times as common as asthma in 5- to 17-year-olds).

Early studies, such as those conducted in Grand Rapids, showed that water fluoridation reduced the amount of cavities children get in their baby teeth by as much as 60 percent and reduced tooth decay in permanent adult teeth by nearly 35 percent. Today, studies prove water fluoridation continues to be effective in reducing tooth decay by 18 to 40 percent, even in an era with widespread availability of fluoride from other sources, such as fluoride toothpaste.

The average annual cost for a community to fluoridate its water is estimated to range from approximately \$0.50 per person in large communities to approximately \$3 per person in small communities. For most cities, every \$1 invested in water fluoridation saves \$38 in dental treatment costs each year.

Source: [Centers for Disease Control and Prevention](#)



HOW FLUORIDE WORKS



Source: Pew Center on the State



MYTHS AND FACTS ABOUT WATER FLUORIDATION



MYTH: Adding fluoride to water is like forcing people to take medication.

FACT: Fluoride occurs naturally in water. The term *fluoridated water* simply means that the fluoride level in a water system has been adjusted to a certain level – or optimal level – to prevent tooth decay. Most water systems in the U.S. are fluoride deficient without this adjustment. Fluoride is not a medication. It is a mineral essential for human life based on its role in metabolism and other cell functions. Fluoride in drinking water has two beneficial effects: preventing tooth decay and contributing to healthy bones. U.S. court decisions have rejected the argument that fluoride is a medication that should not be allowed in water. The American Journal of Public Health summarized one of these rulings, noting that “fluoride is not a medication, but rather a nutrient found naturally in some areas but deficient in others.” Adding fluoride to water is like any other treatment to improve the quality of drinking water. It is based on public officials making a decision that is informed by sound research – not driven by fear. Those who prefer not to drink from a public water system can do so. Maintaining an optimal amount of fluoride in water is based on the principle that decisions about public health should be based on what is healthy for the entire community.



MYTH: There is little difference in the dental health of people in communities with fluoridated water compared to those in communities without it.

FACT: There is a clear difference between the health of communities that fluoridate their drinking water and those that do not. Fluoridation prevents tooth decay and improves dental health. Studies consistently show that water fluoridation reduces tooth decay by 18 to 40 percent. A study of two similar, adjacent communities in Arkansas showed that residents without access to fluoridated water had twice as many cavities as those with access to fluoridated water. Children on Medicaid in less fluoridated counties in New York State require 33 percent more treatments for tooth decay than those in counties where most water systems are optimally fluoridated. Texas saves \$24 per year in Medicaid expenditures for children because of the cavities averted by drinking fluoridated water. The benefits of fluoridation are long lasting. A recent study of U.S. adults found that those born in counties with fluoridation lose fewer teeth than those born in fluoride-deficient counties. International studies across the United States, Australia, Britain, Canada, Ireland, and New Zealand showed 15 to 40 percent less tooth decay in optimally fluoridated communities compared to fluoride-deficient communities. The Centers for Disease Control and Prevention named fluoridated water as “one of 10 great public health achievements of the 20th century.”

Source: Pew Center on the States



MYTHS AND FACTS ABOUT WATER FLUORIDATION (continued)

MYTH: Fluoridation causes cancer and other serious health problems.

FACT: Fluoridated water is safe. The National Cancer Institute has stated, “Many studies, in both humans and animals, have shown no association between fluoridated water and risk for cancer.” In 2006, a panel of the National Research Council – an arm of the National Academies of Science – found no convincing evidence of a causal link between fluoridation and cancer. A leading spokesperson for the Centers for Disease Control and Prevention notes that “60 years of research has shown that there’s no persuasive evidence that points to any harm from community water fluoridation.” Fluoridation opponents cite an “exploratory” Harvard study in the mid-1990s associating fluoride with osteosarcoma, a rare bone cancer. The author herself described the study as having “limitations.” In addition, the principal investigator of the study has stated that further analysis does not support this association. The overwhelming evidence shows the benefits of water fluoridation far outweigh any perceived risk. A 2006 study by the Australian National Health and Medical Research Council examined 408 studies on fluoridation, and concluded that water fluoridation offers clear benefits without solid evidence of negative health effects. At least 100 million Americans have been drinking fluoridated water for many decades. Seventy-two percent of the U.S. population served by community systems has fluoridated water. Without fluoridated water, children face a much higher rate of tooth decay and the potential for related dental diseases can have lasting effects on their health, schooling and future. The risk we must avoid is that of allowing our children to grow up without water fluoridation.

MYTH: There are better ways of delivering fluoride than adding it to water.

FACT: Water fluoridation provides dental benefits to people of all age and income groups without requiring them to spend extra money or change their daily routine. The CDC notes that fluoride is most effective when provided in “the right amount in the right place at the right time,” and there’s no better way to ensure that than fluoridated water. A 2003 study of fluoridation in Colorado concluded that “even in the current situation of widespread use of fluoride toothpaste,” water fluoridation “remains effective and cost saving” at preventing cavities. Studies conducted in communities that fluoridated water in the years after fluoride toothpastes were widely used have shown a lower rate of tooth decay than communities without fluoridated water. For low-income individuals who are at higher risk of dental problems, fluoride rinses are a costly expense, which is why these products are not the “easy” answer that opponents of fluoridation claim they are. Water fluoridation is the least expensive and most effective solution.

MYTH: Fluoridated water isn’t safe for babies.

FACT: Water fluoridated at the optimal level is safe for babies and young children. The American Academy of Pediatrics and the American Medical Association support water fluoridation. Fluoridated water can be used to reconstitute infant formula. The issue for parents of infants to consider is enamel fluorosis – a minor, cosmetic condition that produces faint white markings on permanent teeth as they are forming (from birth through age 8). The risk of dental fluorosis is low. Even when it occurs, fluorosis is barely noticeable – if noticed at all. Mothers who rely on reconstituted infant formula should consult with their pediatricians about options other than using fluoridated water. Some pediatricians may recommend alternatives to fluoridated water, while others may tell parents to continue using fluoridated water. The CDC concludes the vast majority of fluorosis cases are mild, and fluorosis can also occur in communities without fluoridated water. Fluoridated water has stood the test of time, serving U.S. communities since 1945. Today, over 195 million people (72 percent of Americans on public water supplies) drink fluoridated water. Tens of millions, many of whom are now parents themselves, were given formula reconstituted with fluoridated water when they were infants.

Source: [Pew Center on the States](#)



U.S. SURGEON GENERAL STATEMENT ON FLUORIDATION



Dear Conference Attendees:

Welcome to the 2013 National Oral Health Conference. I want to thank you for the leadership and efforts you are providing to the nation in the area of oral health.

As Surgeon General I have been working hard to encourage individuals and communities to make healthy choices because I believe it is better to prevent illness and disease rather than treat it after it occurs. Community water fluoridation is one of the most effective choices communities can make to prevent health problems while actually improving the oral health of their citizens.

One of water fluoridation's biggest advantages is that it benefits all residents of a community—at home, work, school, or play—through the simple act of drinking fluoridated water. Where water fluoridation is a community-wide intervention, the benefits are not limited by a person's income level or their ability to receive routine dental care. It also is a very cost-effective intervention. A lifetime of cavity prevention can be obtained for less than the cost of one dental filling.

Fluoridation's effectiveness in preventing tooth decay is not limited to children, but extends throughout life, resulting in fewer and less severe cavities. In fact, each generation born since the implementation of water fluoridation has enjoyed better dental health than the generation that preceded it.

As then-Surgeon General David Satcher noted in *Oral Health in America: A Report of the Surgeon General* (May 2000), community water fluoridation continues to be the most cost-effective and practical way to provide protection from tooth decay in a community. The U.S. Centers for Disease Control and Prevention has recognized fluoridation as one of 10 great public health achievements of the 20th Century.

This year marks the 68th anniversary of community water fluoridation.

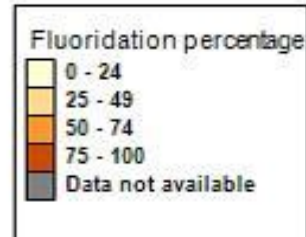
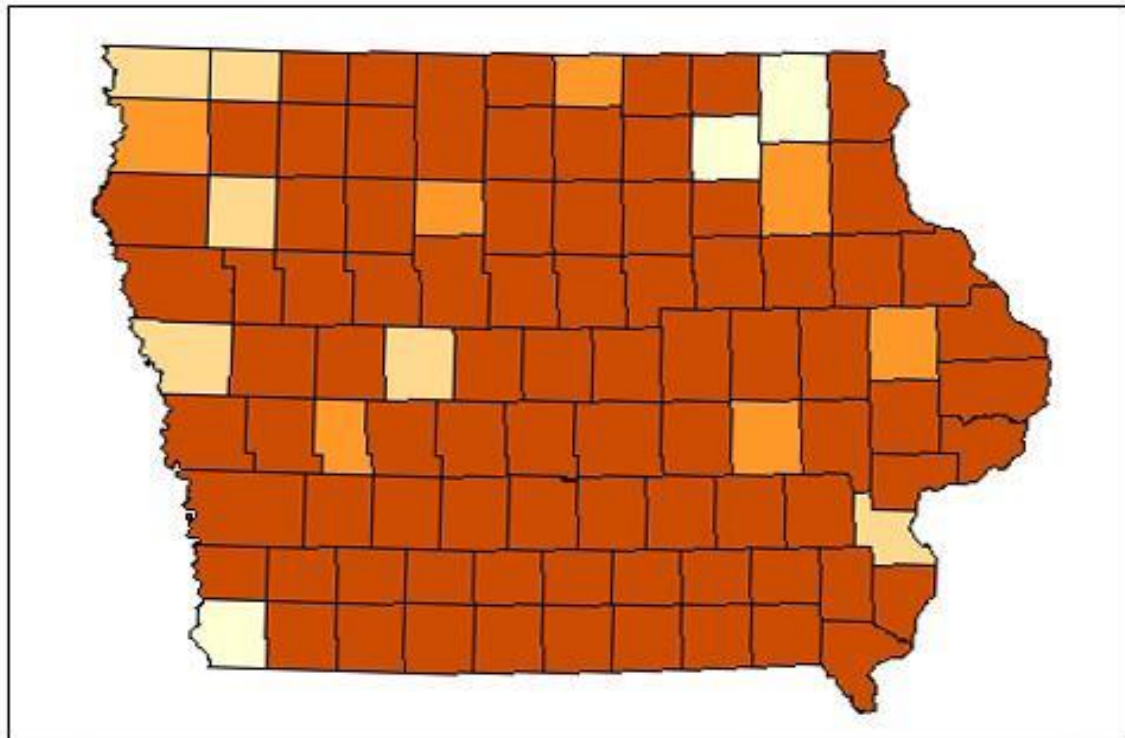
I join with previous Surgeons General in acknowledging community water fluoridation as an effective public health strategy, and recommend its continued use and expansion to enhance the oral health of all Americans.

Regina M. Benjamin, MD, MBA VADM
U.S. Public Health Service
Surgeon General



FLUORIDE IN PUBLIC DRINKING WATER SUPPLIES OF IOWA (2013)

PERCENTAGE OF COUNTY PUBLIC WATER SUPPLY POPULATION RECEIVING FLUORIDATED WATER IN IOWA



Department of Health and Human Services
Centers for Disease Control and Prevention
National Center for Chronic Disease Prevention and Health Promotion

Source: Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, Oral Health Branch, Oral Health Maps [online]. 2013. [accessed 2013May31]. URL:<http://apps.nccd.cdc.gov/gisdoh/>



SAVINGS FROM WATER FLUORIDATION

Research shows that water fluoridation offers one of the best returns on investment of any public health strategy. The reduction in just the costs of filling and extracting diseased teeth – not counting reductions in lost work time and dental pain – more than makes up for the cost of fluoridation. In recent decades, the evidence showing savings has grown:

- For most cities, every \$1 invested in water fluoridation saves \$38 in dental treatment costs each year.
- A Texas study confirmed that the state saved \$24 per child, per year in Medicaid expenditures for children because of the cavities that were prevented by drinking fluoridated water.
- A 2010 study in New York State found that Medicaid enrollees in less fluoridated counties needed 33 percent more extractions and other corrective procedures than those in counties where optimal fluoridation was much more common. As a result, the treatment costs per Medicaid recipient were \$23.65 higher for those living in less fluoridated counties.
- Researchers estimated that in 2003 Colorado saved nearly \$149 million in unnecessary treatment costs by fluoridating public water supplies – average savings of roughly \$61 per person.
- By protecting the enamel of teeth, fluoridation makes it less likely that decay will develop into more serious dental problems that drive people to hospital emergency rooms (ERs), where treatment costs are high. A 2010 survey of hospitals in Washington State found that dental disorders were the leading reason why uninsured patients visited ERs.
- A 1999 study compared Louisiana parishes (counties) that were fluoridated with those that were not. The study found that low-income children in communities without fluoridated water were three times more likely than those in communities with fluoridated water to receive dental treatment in a hospital operating room.
- Water fluoridation provides dental benefits to people of all ages and income groups without requiring them to spend extra money or change their daily routine.



Source: [Pew Center on the States](#)



WHY WATER FLUORIDATION MAKES GOOD BUSINESS SENSE

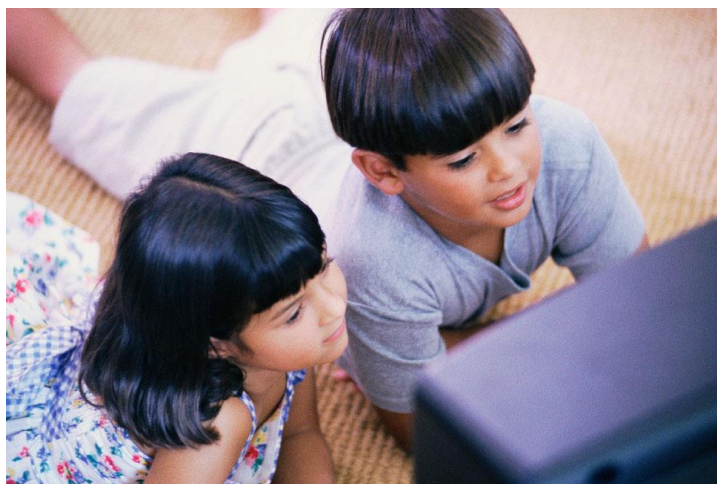
DENTAL HEALTH'S IMPACT ON THE WORKPLACE: Tooth decay is the most prevalent chronic disease in childhood, roughly five times more common than asthma. Unlike a cold, decay doesn't go away with time or bed rest; it lingers and can lead to more serious conditions. The consequences of poor dental health not only punish children and families, but also hurt the business climate in several ways.

REDUCING WORKER PRODUCTIVITY: Working adults are affected in three ways.

1. Adults who had poor dental health as kids often miss work time dealing with the consequences. An estimated 164 million hours of work are missed each year because of dental issues.
2. Adults who had poor dental health as kids are likely to find it harder to find or keep a good job. Research confirms the hurdles faced by people who are missing front teeth – they are viewed as less intelligent, less trustworthy and less desirable than people without a gap in their smile.
3. Parents miss work time taking their children to clinics or hospitals for costly, corrective treatments that, in many cases, could have been avoided with proper preventive tools such as drinking fluoridated water.

MISSING SCHOOL: Missed school days mean missed opportunities to learn. An estimated 51 million school hours are lost each year due to dental-related illness. The goal of creating an educated workforce is undermined when health issues interfere with schooling.

DRIVING UP HEALTH CARE COSTS: Unmet dental needs burden our health care system. In a one-year study of seven Minnesota hospitals, patients made over 10,000 trips to the emergency room because of dental health issues, costing more than \$4.7 million. A survey of hospitals in Washington State found that dental problems were the leading reason why uninsured patients visited emergency rooms.





10 REASONS TO FLUORIDATE PUBLIC WATER

- 1. Single most effective public health measure to prevent tooth decay.** The Centers for Disease Control and Prevention (CDC) has proclaimed community water fluoridation as “one of 10 great public health achievements of the 20th century.”
- 2. Natural. Fluoride is already present in all water sources.** Water fluoridation is simply the adjustment of fluoride that naturally occurs to a recommended level for prevention of tooth decay.
- 3. Similar to fortifying other foods and beverages.** Water that has been fluoridated is similar to fortifying salt with iodine, milk with vitamin D, orange juice with calcium and bread with folic acid.
- 4. Prevents dental disease.** It is the most efficient way to prevent one of the most common childhood diseases – dental decay. An estimated 51 million school hours are lost each year due to dental-related illness.
- 5. Protects all ages against cavities.** Studies show that community water fluoridation prevents at least 25 percent of tooth decay in children and adults, even in an era with widespread availability of fluoride from other sources, such as fluoride toothpaste.
- 6. Safe and effective.** For more than 65 years, the best available scientific evidence consistently indicates that community water fluoridation is safe and effective.
- 7. Saves money.** The average lifetime cost per person to fluoridate a water supply is less than the cost of one dental filling. For most cities, every \$1 invested in water fluoridation saves \$38 in dental treatment costs each year.
- 8. Health benefits recognized by more than 100 organizations.** The Centers for Disease Control and Prevention, the American Academy of Pediatrics, the American Medical Association, the World Health Organization and more than 125 national and international organizations recognize the public health benefits of water fluoridation for preventing dental decay.
- 9. Availability of fluoridation continues to grow.** In 2010, 73.9 percent of the U.S. population on public water systems (204.3 million people) received fluoridated water. This is an increase of almost nine percent from 2000. The Healthy People 2020 goal is for 79.6 percent of the population on public water systems to have access to fluoridated water.
- 10. Endorsed by the American Dental Association.** One of the most widely respected sources for information regarding fluoridation and fluoride is the American Dental Association (ADA). Learn more on the ADA’s website at ADA.org/fluoride.



FLUORIDATION: A SMART INVESTMENT WORTH MAKING AND PRESERVING

Fluoridation is a sound policy supported by the American Academy of Pediatrics, the American Dental Association, the Centers for Disease Control and Prevention, and many other respected health and medical experts. Yet, despite this broad consensus of support, more than 74 million people whose homes are connected to public water systems do not receive fluoride-adjusted water.

Even worse, small groups of activists are encouraging cities and towns to stop fluoridating their community water system. Some of these fluoridation opponents are claiming this could save money, even though substantial evidence shows the opposite is true – children, families and taxpayers would pay a long-term price for ending fluoridation.

In a time of tight budgets and shrinking resources, state and local governments must invest in cost-effective strategies that support the development of a healthy, well-educated workforce. By supporting fluoridation, you can help your community significantly reduce both its dental problems and the long-term economic costs that these problems have on businesses and taxpayers.





FREQUENTLY ASKED QUESTIONS

The Pew Children's Dental Campaign supports water fluoridation because it's one of the most cost-effective strategies for states and communities to improve the oral health of their residents. Although a number of communities in the U.S. have been fluoridating their public water systems for more than 60 years, this strategy re-entered the spotlight in the wake of recent announcements from federal health officials about fluoride. This FAQ is meant to answer many key questions about the benefits of fluoridation and address the federal announcements.

Q: What is fluoride and how does it benefit dental health?

A: Fluoride is a mineral that exists naturally in nearly all water supplies. Research proves that at a certain level in drinking water, fluoride prevents tooth decay. This optimal level is reached when a public water system adjusts – either increasing or lowering – the level of fluoride.

Q: Why should the community continue its water fluoridation program?

A: Water fluoridation is a public health measure that benefits everyone, but especially children and particularly those children who face barriers to accessing care and attaining good oral health. Water that has been fortified with fluoride is similar to fortifying salt with iodine, milk with vitamin D and orange juice with vitamin C. The process of fluoridation also saves more than it costs. Studies show that community water fluoridation prevents at least 25 percent of tooth decay in children and adults.

Q: I recently found the website of a group that opposes fluoridation. This group claims that the connection between fluoridation and cavity prevention isn't solid. Is that true?

A: No, it is not true. There is solid, consistent evidence supporting fluoride's role in cavity prevention. Studies show that fluoridation reduces tooth decay by 18 to 40 percent. Two studies released in 2010 strengthened the already substantial evidence that fluoridated water prevents cavities.

Q: Does fluoride in drinking water protect only the teeth of children or does it benefit everyone?

A: People of all ages benefit from drinking water that is optimally fluoridated. Oral health is important throughout a person's life. In the 1950s, before water fluoridation was common, most people over the age of 65 had lost their teeth. Now, after decades of widespread fluoridation, more seniors are keeping most or all of their teeth. Between 1972 and 2001, the rate of edentulism – losing all of one's teeth – dropped 26 percent among lower-income seniors and fell 70 percent among upper-income seniors.

Q: How many Iowans receive water that is optimally fluoridated?

A: Roughly 92 percent of Iowans whose homes are connected to a community water system receive fluoride-adjusted water. Some communities have been doing so for over 60 years.

Q: Water fluoridation helps to prevent tooth decay, but is that really a concern in the U.S. anymore?

A: Yes, it remains a concern. Although dental health has improved for many Americans, tooth decay remains the most common chronic childhood disease – five times more prevalent than asthma. Tooth decay causes problems that often last long into adulthood, affecting kids' schooling and their ability to get jobs as adults.



FREQUENTLY ASKED QUESTIONS (continued)

Q: Federal health officials recently proposed that the optimal level of fluoride in public water systems should be 0.7 milligrams per liter (mg/L). Exactly what was the recommendation and why was this new level set?

A: In January 2011, the U.S. Department of Health and Human Services (HHS) proposed that the optimal level of fluoride in public water systems should be 0.7 milligrams per liter (mg/L) of water. This is a change from the previous recommendation that the optimal level would vary by a region's climate (average temperatures) within the range of 0.7 to 1.2 mg/L. This new proposal by HHS recognizes these scientific findings:

1. Americans today are getting fluoride from more sources than they were when the original level was set.
2. The water intake of children does not vary by climate or region. This new fluoride level demonstrates that federal health officials are periodically reviewing research and relying on the best science to update—if and when appropriate—their recommendations on fluoridated water.



Q: Are many communities planning on completely removing fluoride from water because of the recent federal announcement on the fluoride level?

A: Many communities are reviewing their fluoride levels and planning to adjust those levels to meet the new recommendation. There is no sign that many communities either want or plan to remove fluoride entirely. HHS and leading health experts do not support removing fluoride from water to a level below the recommended level because this would deprive people of cavity protection. In fact, the American Dental Association welcomed HHS' new fluoride level and said that water fluoridation remains "one of our most potent weapons in disease prevention."

Q: What impact will the new fluoride level have on community members who are served by a public water system that's fluoridated?

A: The new optimal fluoride level that federal health officials have recommended will have a positive impact. First, it will continue to protect teeth by helping to reduce tooth decay. Second, the new level will minimize the chances of fluorosis, a condition that typically causes a minor discoloration of teeth that is usually visible only to a dentist. The new HHS recommendation reflects the fact that Americans today receive fluoride from more sources (toothpaste, mouth rinses and other products) than they were getting several decades ago.



FREQUENTLY ASKED QUESTIONS continued

Q: If I use fluoridated toothpaste, am I getting enough fluoride to protect against decay?

A: No. The benefits from water fluoridation build on those from fluoride in toothpaste. Studies conducted in communities that fluoridated water in the years after fluoride toothpastes were widely used have shown a lower rate of tooth decay than communities without fluoridated water. The author of a 2010 study noted that research has confirmed “the most effective source of fluoride is water fluoridation.” Water fluoridation provides dental benefits to people of all ages and income groups without requiring them to spend extra money or change their daily routine.

Q: What about bottled water or home treatment systems?

A: Individuals who drink bottled water as their primary source of water could be missing the decay preventive effects of the fluoridated water available from their community water supply since most bottled water does not contain optimal levels of fluoride. Some home water treatment systems remove a significant amount of fluoride from the water supply, oftentimes below recommended levels. The ADA encourages drinking fluoridated water at recommended levels to protect against tooth decay.



FREQUENTLY ASKED QUESTIONS: INFANTS & FLUORIDATED WATER

Q: Why do children need fluoride?

A: Fluoride is an important mineral for young children. As a child's teeth begin to form, fluoride strengthens the enamel to make it resistant to tooth decay. Later, after teeth are in the mouth, fluoride helps to reverse early signs of decay. This is how children benefit from drinking fluoridated water. Fluoride exists naturally in water, and "fluoridation" is simply adjusting fluoride to the optimal level for preventing tooth decay.

Q: I read something on the Internet suggesting that infants shouldn't be exposed to fluoride. What's this all about?

A: In recent years, questions have been raised about the use of fluoridated water to prepare infant formula. Some of these questions have come from groups like the Fluoride Action Network, which has a much broader agenda – to prevent Americans of all ages from having access to fluoridated water through their public water systems. The Fluoride Action Network wrongly claimed that the American Dental Association (ADA) recommends "that children under 12 months of age should not consume fluoridated water." In fact, the ADA concludes that "it is safe to use fluoridated water to mix infant formula" and encourages parents to discuss any questions they may have with their dentists and pediatricians.

Q: What options do parents have if they prefer not to use fluoridated water for infant formula?

A: Parents or caregivers have three simple alternatives for feeding an infant. First, they can breastfeed their infants, which is what the American Academy of Pediatrics generally recommends. Second, they can use bottled or purified water that contains no fluoride. Third, they can use a ready-to-feed formula that does not require water to be added.

Q: What is dental fluorosis and will fluoridated water increase the odds that an infant will later develop this condition?

A: Although using fluoridated water to prepare infant formula might increase the chance that a child develops dental fluorosis, nearly all instances of fluorosis are mild, cosmetic condition. Fluorosis usually appears as very faint white streaks on teeth. For examples of what mild fluorosis looks like from Iowa children, visit <http://www.ada.org/5172.aspx?currentTab=2>. In fact, the ADA reports "the effect is so subtle that usually only a dental expert would notice it during an examination." It does not cause pain, nor does it affect the function or health of the teeth. And once a child reaches age 8, they cannot develop dental fluorosis.

Q: Is fluoridated water the reason why the rate of dental fluorosis among children has increased?

A: Experts point to a different reason. Officials at the Centers for Disease Control and Prevention believe the rise in fluorosis is due mainly to children who swallow fluoride-containing toothpaste when they brush their teeth. Researchers at Oregon State University also point to the swallowing of fluoride toothpaste as a key factor in excess fluoride intake by kids. This is why parents of children under the age of 6 are advised to supervise their kids' tooth-brushing and apply only a pea-size amount of toothpaste to the toothbrush.

Source: [Pew Center on the States](#)



WHAT RESPECTED ORGANIZATIONS AND LOCAL HEALTH LEADERS SAY ABOUT WATER FLUORIDATION

ACADEMY OF GENERAL DENTISTRY:

“When used appropriately, fluoride is safe and effective in preventing and controlling dental caries. Regular use throughout life will help protect teeth against decay. All water supplies, including bottled water, should have appropriate fluoride levels. All fluoridated items, including toothpaste, should be used as recommended by your dentist.”

“Fluoride makes the entire tooth structure more resistant to decay and promotes remineralization, which aids in repairing early decay before damage is even visible. Studies have confirmed the most effective source of fluoride to be water fluoridation. Instead of drilling holes to fix cavities, dentists would rather educate the public on how to avoid developing tooth decay in the first place. Drinking tap water to receive fluoride is safe, and it's easier on your wallet than going to the dentist for a filling.”

JODY R. MURPH, MD, MS; UNIVERSITY OF IOWA HOSPITALS & CLINICS PEDIATRICIAN AND FELLOW AMERICAN ACADEMY OF PEDIATRICS:

“Dental decay is epidemic among children in the United States. The American Academy of Pediatrics supports community water fluoridation as a safe, effective public health measure to protect the teeth and the health of all children, even those without dental insurance or access to a dentist. It is one of the most important and most cost-effective public health preventive programs of the century.”

AMERICAN ACADEMY OF FAMILY PHYSICIANS:

“Fluoridation of public water supplies is a safe, economical, and effective measure to prevent dental caries.”

AMERICAN ACADEMY OF PHYSICIAN ASSISTANTS:

“Primary prevention keeps disease from occurring at all by removing its causes. Examples of primary prevention include...giving immunizations for many communicable diseases, and counseling patients to adopt healthy lifestyles...Examples include chlorination and fluoridation of the water supply...”

“Fluoride substantially decreases caries rates...All children should receive fluoride through systemic water fluoridation or dietary supplements.”

AMERICAN ASSOCIATION OF ORAL AND MAXILLOFACIAL SURGEONS:

“Community water fluoridation, which adjusts the fluoride in water to a level sufficient for preventing and controlling tooth decay, reduces tooth decay by 30 to 50 percent. Although great progress has been made, nearly 20 percent of public water systems do not have the capacity to deliver and approximately 100 million Americans do not have access to optimally fluoridated water. Many communities need support to upgrade or purchase new water systems and fluoridation equipment.”





WHAT RESPECTED ORGANIZATIONS AND LOCAL HEALTH LEADERS SAY ABOUT WATER FLUORIDATION (continued)

AMERICAN ASSOCIATION OF PUBLIC HEALTH DENTISTRY:

“...it has been shown that children with the greatest dental need and who are at highest risk for tooth decay benefit the most from water fluoridation. The Association recommends that federal, state, and local agencies and organizations promote water fluoridation as the foundation for better oral health.”

AMERICAN DENTAL ASSOCIATION:

“Studies conducted throughout the past 65 years have consistently shown that fluoridation of community water supplies is safe and effective in preventing dental decay in both children and adults. Simply by drinking water, children and adults can benefit from fluoridation's cavity protection whether they are at home, work or school.”

MARY MARIANI, DDS, PRESIDENT, IOWA DENTAL ASSOCIATION:

“The Iowa Dental Association joins the ADA, the CDC, the Surgeon General of the United States and many others in support of community water fluoridation. Water fluoridation is an effective economical, safe, and scientifically proven way to prevent dental disease in all populations of the U.S. Prevention is key and community water fluoridation just makes sense”

AMERICAN DENTAL HYGIENISTS' ASSOCIATION:

“Good scientific evidence supports the use of community water fluoridation and the use of fluoride dental products for preventing tooth decay for both children and adults.”

AMERICAN PUBLIC HEALTH ASSOCIATION:

“[The U.S. Department of Health and Human Services] announced proposed recommendations to simplify the recommended optimal level for community water systems to 0.7 mg/L fluoride ... APHA continues to support community water fluoridation as a sound public health preventive measure.”

“Much of the credit for the nation's better oral health can be attributed to the decision in the 1940s to begin adding fluoride to public drinking water systems.”

IOWA PUBLIC HEALTH ASSOCIATION:

“Oral disease is a highly preventable health risk for children and adults and impacts learning, working, socialization and overall health. The combination of daily oral hygiene practices in the home, regular dental care, and community water fluoridation has the potential to significantly reduce tooth decay and gum disease in children and adults. IPHA recommends that all Iowa water systems meet that “minimum and optimal” 0.7 PPM standard of water fluoridation as set by the Department of Health and Human Services and Centers for Disease Control and Prevention.”



WHAT RESPECTED ORGANIZATIONS AND LOCAL HEALTH LEADERS SAY ABOUT WATER FLUORIDATION (continued)

AMERICAN MEDICAL ASSOCIATION:

“The AMA urges state health departments to consider the value of required statewide fluoridation (preferably a comprehensive program of fluoridation of all public water supplies, where these are fluoride deficient), and to initiate such action as deemed appropriate.”

AMA has also encouraged physicians to “become involved” in the fluoridation issue by determining “whether municipal water supplies are optimally fluoridated and ... working with public health agencies to take corrective action if suboptimal fluoridation is found.”

AMERICAN OSTEOPATHIC ASSOCIATION:

“The American Osteopathic Association supports the fluoridation of fluoride-deficient public water supply.”

AMERICAN WATER WORKS ASSOCIATION:

“... community water fluoridation at optimal levels is beneficial for preventing tooth decay.”

“The goal of community water fluoridation is to achieve the desired oral health benefit while minimizing potential health risks. That is why water providers undergo thorough and extensive training to safely apply fluoride in the amount recommended by the world’s most respected public health authorities.”

ASSOCIATION OF STATE & TERRITORIAL DENTAL DIRECTORS:

“Community water fluoridation remains the cornerstone of dental caries prevention in the United States and has been demonstrated to be safe, cost-effective and beneficial through every stage of life and for all people, regardless of age, race, ethnicity or socio-economic status.”

CHILDREN’S DENTAL HEALTH PROJECT:

“Water fluoridation is particularly beneficial during childhood and in adolescence when cavity experience first begins. Not only do children who drink fluoridated water have fewer cavities but their cavities are smaller and less deep when they do occur.”



EARLY HEAD START NATIONAL RESOURCES CENTER:

“Fluoride is the most effective agent to prevent tooth decay. It can be added to community water supplies, as needed, and occurs naturally in some areas.”

“... Early Head Start staff and parents should be aware that purchased bottled water usually does not contain enough fluoride to prevent tooth decay.”



SAMPLE OPINION LETTER/LETTER TO THE EDITOR

(Date)

(Inside Address)

Dear (Name):

(Brief reference in response to particular article, as appropriate.) Fluoridation of community water supplies has been proclaimed by the Centers for Disease Control and Prevention as one of 10 great public health achievements of the 20th century. According to the best available scientific evidence fluoridation is safe, effective and economical in preventing tooth decay. Today, three in four Americans benefit from fluoridated water, which is more than 204 million people. Our community should maintain water fluoridation so that our residents continue receiving these decay-preventing benefits.

Fluoridation saves money. On an individual basis, the lifetime cost of fluoridation is less than the cost of one dental filling. For communities, every \$1 invested in water fluoridation saves approximately \$38 in dental treatment costs each year.

The benefits from water fluoridation build on those from fluoride in toothpaste. Fluoride toothpaste alone is insufficient, which is why pediatricians and dentists often prescribe fluoride tablets to children living in non-fluoridated areas. Simply by drinking water, people can benefit from fluoridation's cavity protection – regardless of age, education, race or socio-economic status.

As a (_____) (*dentist, pediatrician, public health administrator, parent, citizen*), my first concern is the health of my (*patients/family/community members*). Discontinuing community water fluoridation may reduce expenses for the city in the short term, but will inevitably lead to higher dental costs for community members, as individuals and families pay for tooth fillings, extractions, and emergency room services. We cannot afford to end community water fluoridation.

The bottom line is that community water fluoridation remains the single most effective public health measure to prevent tooth decay. That is why organizations such as the Iowa Dental Association (IDA), the American Dental Association (ADA), the Iowa Public Health Association (IPHA) as well as more than 100 other international organizations recognize the public health benefits of fluoridation.

Additional information regarding fluoridation is available from the ADA at ADA.org/fluoride.

Sincerely,

(Your name, title)



Iowans
FOR ORAL HEALTH