 Key Facts You Should Know About

Community Water Fluoridation

**1. Fluoride is nature’s way to fight tooth decay.** Fluoride is a mineral that exists naturally in public water supplies, but usually at a level that is too low to protect teeth from cavities. This is why [most local water systems](http://www.vdh.virginia.gov/ofhs/childandfamily/dental/cwf/) adjust the level, usually by adding a little more fluoride. Fluoride’s benefits were first [confirmed](http://www.nidcr.nih.gov/oralhealth/Topics/Fluoride/TheStoryofFluoridation.htm) during the early 1900s in Colorado Springs, Colorado—an area whose water supply has unusually high levels of fluoride.

**2. More than 70 years of research and experience proves that fluoridation lowers the rate of** **tooth decay for both children and adults.**According to the Centers for Disease Control and Prevention, fluoridation [reduces](http://www.cdc.gov/fluoridation/basics/) tooth decay by approximately 25% over a lifetime. Both [children](http://www.ncbi.nlm.nih.gov/pubmed/20873280) and [adults](https://www.dentistry.unc.edu/news/2013/2013-03-11_slade.cfm) benefit. Research shows that fluoridated water works in two ways. It works when [swallowed](http://www.ncbi.nlm.nih.gov/pubmed/12597581) because the fluoride enters the bloodstream and gets incor-porated into developing teeth. It works [topically](http://www.sciencedaily.com/releases/2013/03/130311151255.htm) because trace levels of fluoride enter the mouth and are incorporated in saliva and plaque that coat the enamel of teeth.

**3. Fluoridation provides important additional protection beyond fluoride toothpaste.**  [Research](http://ilikemyteeth.org/fluoridation/effects-of-fluoride/) conducted since the 1980s—after fluoride toothpaste was widely used—continues to show that fluoridated communities have lower rates of tooth decay. Like seatbelts and air bags, fluoride toothpaste and fluoridated water are complementary practices.

**4. Fluoridation’s benefits are reinforced by recent studies.** The U.S. Community Preventive Services Task Force, an independent panel of experts, reviewed more than 150 studies about fluoride and issued its [finding](http://www.thecommunityguide.org/oral/fluoridation.html) in 2013 that there is “strong evidence” of fluoridation’s effectiveness. Roughly 30 of these studies had been published since 2000. Within the past several years, published research from [Canada](http://onlinelibrary.wiley.com/doi/10.1111/cdoe.12215/abstract), [England](http://www.ncbi.nlm.nih.gov/pubmed/24603270), [Ireland](http://tilda.tcd.ie/publications/research%20briefs/2015_Research%20Brief_Water%20Fluoridation.pdf), [Israel](http://jada.ada.org/article/S0002-8177(14)00115-9/abstract) and [New Zealand](http://www.ncbi.nlm.nih.gov/pubmed/23550501) reinforce the overwhelming evidence that fluoridation keeps children and adults healthy.

**5. Fluoridation reflects America’s tradition of fortifying foods and beverages to protect human health.** For example, [Vitamin D](http://www.nejm.org/doi/full/10.1056/NEJM199204303261802) is added to milk, [iodine](http://www.webmd.com/diet/features/salt-dont-ban-entirely) is added to salt, and [folic acid](http://www.webmd.com/a-to-z-guides/folic-acid-deficiency-anemia-topic-overview) is added to breads and cereals. We all have a stake in keeping our communities healthy, and one example is educational achievement is one reason. Experts [have identified](https://s3.amazonaws.com/cdhp/End+Cavities/School+Absences+in+US+%26+Oral+Health+(2015).pdf) dental health issues as one of the leading reasons why children miss school.

**6. Solid research confirms the safety of fluoridated water.** The National Research Council has produced [5 reports](http://www.cdc.gov/fluoridation/safety/nas.htm) on fluoride or fluoridation, including three since 1997. None of these reports has identified health concerns about the level of fluoride used for water fluoridation. Studies circulated by anti-fluoride groups typically tested fluoride levels in other countries that are far higher than those used here in the U.S. The Toxicology Excellence for Risk Assessment, an independent research organization, [explains](http://kidschemicalsafety.org/health/reader-question-safe-level/) that “medical scientists have agreed that small concentrations of fluoride have health benefits that vastly exceed any hypothetical health risk.” In a [2014 report](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/300202/Water_fluoridation_health_monitoring_for_england__full_report_1Apr2014.pdf), Public Health England examined safety concerns and wrote that its analysis “provides further reassurance that water fluoridation is a safe and effective public health measure.”

**7. Anti-fluoride groups circulate various claims that are false, unproven or misleading.** Dental and medical professionals aren’t the only ones who have determined that opponents make a lot of false or misleading claims. PolitiFact, an independent fact-checking service, has investigated [three](http://www.politifact.com/texas/statements/2011/apr/19/mike-ford/austin-resident-says-flouride-compound-added-local/) [typical](http://www.politifact.com/florida/statements/2011/oct/06/critics-water-fluoridation/truth-about-fluoride-doesnt-include-nazi-myth/) [arguments](http://www.politifact.com/wisconsin/statements/2012/jul/09/jim-bohl/milwaukee-alderman-says-fluoride-toothpaste-poison/) made by opponents of fluoridation. Each of these claims was shown to be false or deceptive. Vermont’s former Commissioner of Environmental Conservation [reported](http://www.rutlandherald.com/article/20160224/OPINION04/160229784) that anti-fluoride activists have seriously misrepresented the safety” of fluoridated water “even though they have been provided with the facts.” An expert in water research publicly [expressed](http://juneauempire.com/stories/040604/opi_fluoride.shtml#.Vs3NYfkrLbg) concerns about “the inflammatory and misleading rhetoric” that some fluoridation opponents use.

**8. A community that ended fluoridation would undermine the health and quality of life of its residents.** The city council in Calgary—Canada’s 3rd-largest city—ended fluoridation in 2011, and a [recently published study](http://onlinelibrary.wiley.com/doi/10.1111/cdoe.12215/abstract) shows the consequences this decision is having. Tooth decay among Calgary’s 2nd-grade children (measured by tooth surfaces) soared 146% after the city ceased fluoridation. Tooth decay among Calgary children is rising at an 81% faster pace than the decay rate in a similar city that is fluoridated. And a higher cavity rate means that U.S. families and Medicaid budgets must pay more for fillings and other dental treatments. Research shows that children with poor dental health are nearly [three times](http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3222359/) more likely to miss school days. Adults with unhealthy or missing teeth are at a [disadvantage](http://www.nbcnews.com/feature/in-plain-sight/bad-teeth-broken-dreams-lack-dental-care-keeps-many-out-v18906511) when interviewing for good jobs.

**9. A community that ended fluoridation would increase health inequities.** Children

of color and those from low-income families experience [disparities](http://www.cdc.gov/nchs/data/databriefs/db191.pdf) in oral health. Ending fluoridation would make these disparities even worse. We know this because research from [Louisiana](http://www.fairbanksalaska.us/wp-content/uploads/2011/07/19990903MMWR-LA-Fluoridation-Study.pdf), [Canada](https://s3-us-west-2.amazonaws.com/cdhp-fluoridation/CWF+Research/Calgary+CWF+Cessation+%26+Health+Equity+(2016).pdf) and [other nations](http://jada.ada.org/article/S0002-8177(14)00115-9/abstract) demonstrates that low-income or disadvantaged children in non-fluoridated communities experience more tooth decay. In fact, a University of Michigan researcher [called](http://onlinelibrary.wiley.com/doi/10.1111/j.1752-7325.2002.tb03445.x/abstract) fluoridation “the most effective and practical method” for reducing income-based disparities. A 2013 report by the Wellesley Institute [concluded](http://www.wellesleyinstitute.com/wp-content/uploads/2013/09/The-Real-Cost-of-Removing-Water-Fluoridation.pdf) that ending fluoridation in a community “will be especially damaging for already health-disadvantaged populations and will worsen oral health inequities.” The institute added: “Alternate oral health measures will not be as effective and will be much more expensive.”