

# Is Using Fluoride Toothpaste Enough?

Hundreds of studies have been conducted on fluoride, fluoridation, and tooth decay. Few topics have been examined more closely. The overwhelming weight of the evidence shows that fluoridated water reduces the rate of tooth decay.

By 1980, fluoride toothpaste had grown to reach 90 percent of the market. Given the widespread use of fluoride toothpaste today, is fluoridated water still necessary? The answer is yes. Consider the solid evidence from research that has been conducted *since* fluoride toothpaste became widely used. Here is a sample of the many studies showing fluoridated water continues to protect against decay:

- A **New York** study (2010) revealed that low-income children in less fluoridated counties needed 33 percent more fillings, root canals, and extractions than those in counties where fluoridated water was common.<sup>1</sup>
- A study of **Alaska** children (2011) showed that kids living in non-fluoridated areas had a 32 percent higher rate of decayed, missing or filled teeth than kids in fluoridated communities.<sup>2</sup>
- A **Nevada** study (2010) examined teenagers' oral health and found that living in a community *without* fluoridated water was one of the top three factors associated with high rates of decay and other dental problems.<sup>3</sup>
- A study of towns in **Illinois** and **Nebraska** (1998) found that the tooth decay rate among children in the fluoridated town was 45 percent lower than the rate among kids in the non-fluoridated communities. This benefit occurred even though more than 94 percent of children in *all* of these communities were using fluoridated toothpaste.<sup>4</sup>



Fluoridation remains critically important to combat tooth decay. Although the nation's oral health has improved overall during the past 50 years, tooth decay is still the most common chronic childhood disease, 5 times more common than asthma. Tooth decay affects more than 80 percent of Americans by the time they begin their adult years.<sup>5</sup>

Brushing with fluoride toothpaste twice each day is important. So is seeing a dentist regularly. Many Americans put off appointments because they lack dental insurance and feel they cannot afford the costs. At a time when more than 100 million Americans lack dental insurance, fluoridation offers an easy, inexpensive preventive strategy from which everyone benefits simply by turning on their tap.<sup>6</sup>

Anti-fluoride activists try to present water fluoridation as an old, unnecessary health practice. But consider this. The armed forces is constantly looking ahead and embracing new approaches. Yet the U.S. military recognizes the continued need for fluoridated water. In fact, a senior Defense Department official called tooth decay "a major problem for military personnel" and notes that fluoridation will "directly reduce their risk for dental decay and improve [military] readiness."<sup>7</sup>

So there you have it. When it was first implemented in Michigan back in 1945, fluoridated water was a smart idea — and it still is.

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## Sources

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<sup>1</sup> The original figure (\$23.63) was corrected in a subsequent edition of this journal and clarified to be \$23.65. See: Letters to the Editor. *Public Health Reports*. 2010;125;788.

<sup>2</sup> U.S. Centers for Disease Control and Prevention. Dental Caries in Rural Alaska Native Children --- Alaska, 2008 Weekly. *Morbidity and Mortality Weekly Report*. 2011;60(37):1275-1278.

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<sup>3</sup> Ditmyer M, Dounis G, Mobley C, Schwarz E. A case-control study of determinants for high and low dental caries prevalence in Nevada youth. *BMC Oral Health*. 2010;10(24). <http://www.biomedcentral.com/1472-6831/10/24>. Accessed November 26, 2014.

<sup>4</sup> Selwitz RH, Nowjack-Raymer RE, Kingman A, Driscoll WS. Dental caries and dental fluorosis among schoolchildren who were lifelong residents of communities having either low or optimal levels of fluoride in drinking water. *J Public Health Dent*. 1998;58(1):28-35. <http://www.ncbi.nlm.nih.gov/pubmed/9608443>. Accessed November 26, 2014.

<sup>5</sup> U.S. Centers for Disease Control and Prevention. Trends in Oral Health Status: United States, 1988–1994 and 1999–2004. 2007;11(248). [http://www.cdc.gov/nchs/data/series/sr\\_11/sr11\\_248.pdf](http://www.cdc.gov/nchs/data/series/sr_11/sr11_248.pdf). Accessed November 26, 2014.

<sup>6</sup> DentaQuest Foundation. An Electronic Compendium of Resources for Building Oral Health Coalitions. 2012. [http://dentaquestfoundation.org/sites/default/files/uploads/Compendium\\_2%2023%2012%20\(2\).pdf](http://dentaquestfoundation.org/sites/default/files/uploads/Compendium_2%2023%2012%20(2).pdf). Accessed November 26, 2014.

<sup>7</sup> Woodson J. Memorandum for Deputy Assistant Secretary of Defense. July 18, 2011. [https://s3-us-west-2.amazonaws.com/cdhp-fluoridation/Dept+of+Defense+Fluoridation+Memo+\(2013\).pdf](https://s3-us-west-2.amazonaws.com/cdhp-fluoridation/Dept+of+Defense+Fluoridation+Memo+(2013).pdf). Accessed November 14, 2014.