

And You Thought the Debate Over Fluoridation Was Settled

By MELINDA BECK

As a baby boomer growing up without fluoridation, I had 14 cavities before my 18th birthday, including seven at one particularly mortifying dental visit.

A generation later, my teenage daughters, who've grown up in a fluoridated city, have a combined total of none.

I assumed that the debate over fluoridation was long settled -- after all, the Centers for Disease Control and Prevention calls adding minute quantities of fluoride to municipal water supplies one of the 10 most significant public-health advances of the 20th century. But opposition remains fervent in some communities. More than 180 million Americans have access to fluoridated water, which leaves over 100 million who do not.

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This [election day](#), whether or not to [fluoridate is on the ballot](#) in 41 communities in Nebraska, as well as 1 in New York, 1 in Maine and 2 in Wisconsin. Where do you stand on the issue? [Share your views](#).

Fluoridation is on the ballot today in 41 such communities in Nebraska, as well as one in New York state, one in Maine and two in Wisconsin -- and the battles echo 60 years of controversy.

"Fluoride is a poison. You can't dump it in the ocean or a landfill, and they want to put it in our water. It's insane," says Marvin "Butch" Hughes of Hastings, Neb. (population 25,000), who heads the local chapter of Nebraskans for Safe Water.

"I've had reporters ask me if fluoride can be used to make weapons of mass destruction," sighs Jessica Meeske, a pediatric dentist in Hastings and board member of the Nebraska Dental Association, which supports fluoridation. She treats patients from communities that have fluoride and those that don't: "The kids who don't have more cavities, and the cavities are much deeper. They're in a lot of pain. They aren't able to eat. They don't do well in school. And the decay just escalates. It spreads from tooth to tooth."

Controversy has dogged fluoridation ever since scientists determined in the 1930s that tiny amounts of the naturally occurring mineral added to water can guard against tooth decay. Opponents dubbed it a Communist plot and have claimed over the years that it raises the risk for cancer, Down's syndrome, heart

disease, osteoporosis, AIDS, Alzheimer's, lower IQ, thyroid problems and other diseases.

In 2006, the National Research Council warned that high levels of fluoride -- roughly four times the amount typically used in water systems -- are associated with severe dental fluorosis, in which teeth become mottled and pitted, and could cause bone fractures. A separate study linked fluoride with a very rare bone cancer in boys.

An antifuoridation protester in Worcester, Mass., in 2001.

Bill Bailey, a dental health officer at the CDC, says while a few isolated studies have raised such questions, "there's never been any compelling evidence that fluoridation has any harmful health effects" in over 60 years of research. A long list of medical associations have also endorsed fluoridation, including the American Dental Association, the American Medical Association, the World Health Organization and the past five surgeons general.

Overall, drinking fluoridated water cuts the rate of tooth decay 18% to 40%, according to the CDC. Studies have shown that it can help "remineralize" weakened areas in children's and adults' teeth, allowing many more elderly Americans to keep their teeth all their lives. The ADA estimates that every \$1 spent on community fluoridation saves \$38 in dental bills.

Fluoride is now widely added to toothpaste and mouthwash -- even many varieties of bottled water -- and dentists in unfluoridated areas often urge patients to use supplements. So some critics wonder whether adding it the water supply is necessary. Dr. Meeske says many poor families that she treats can't afford the supplements, and that fluoride is more effective at protecting teeth when it's ingested, so that teeth are continually bathed with a low dose. "It's much cheaper and simpler to prevent decay through water fluoridation than to drill it and fill it out of teeth," she says.

If you're concerned or just curious about the level of fluoride in your water, ask your local water utility. Home water filters that use reverse-osmosis (not the activated carbon filters that sit on a tap) can reduce fluoride as much as 99%. But think really hard before you do that: Take it from me, it's no fun getting your teeth filled.

Which state has the highest rate of fluoridation? Kentucky, where 99.8% of residents received fluoridated water, as of 2006. Hawaii had the lowest percentage, at just 8.4%. Next lowest was New Jersey, with only 22.4% of residents receiving fluoridated supplies. To see where your state ranks, see this CDC link: <http://www.cdc.gov/fluoridation/statistics/2006stats.htm>

Write to Melinda Beck at HealthJournal@wsj.com