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# *Pacific Health*



**IN THIS ISSUE:**

**FLUORIDE'S SWIFT CURRENT**

Boost or threat to public health?

**TOOTH DECAY EPIDEMIC**

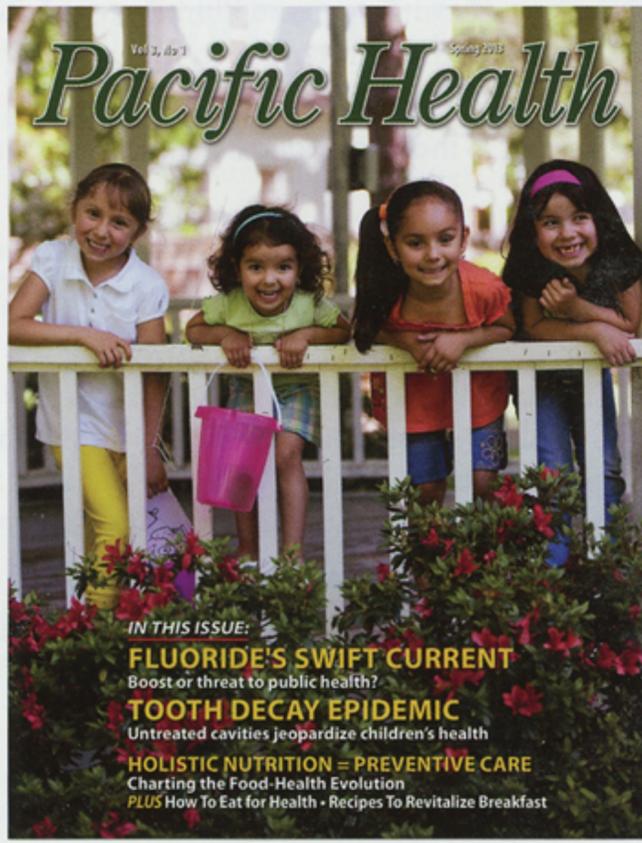
Untreated cavities jeopardize children's health

**HOLISTIC NUTRITION = PREVENTIVE CARE**

Charting the Food-Health Evolution

**PLUS** How To Eat for Health • Recipes To Revitalize Breakfast

THE MAGAZINE OF PACIFIC FOUNDATION FOR MEDICAL CARE



Cover photograph by Robb McDonough



Is water fluoridation the best way to tackle the widening epidemic of dental disease?



WALKING THE TALK: A physician rekindles his hoops mojo to stay fit and have fun.

## Inside Our *Spring Issue*

### From the CEO

- 3** How the Affordable Care Act Affects Redwood Health Services  
By John Nacol

### Foundation News

- 4** About PFMC | PFMC New Members

### Making A Difference

- 5** Sonoma Valley Health Roundtable tackles diabetes  
**6** PFMC supports community health partners

### Health News Handoff

- 7** Making Rounds: Health News Briefs

### Health Care Reform

- 8** Rolling Out the Affordable Care Act  
How Sonoma County is preparing for 2014 | By Shirlee Zane

### Public Health

- 10** Water Fluoridation: A boost or a threat to public health?  
A Q&A with Sonoma County's health officer about the facts and the controversy  
**32** Understanding Fluoridation Concerns | By Patricia Dines

### Oral Health

- 15** Treating tooth decay today benefits everybody tomorrow  
Why children's dental health is so shockingly poor | By Sara Randall

### Integrative Medicine

- 18** Acupuncture: East Meets West Embodied  
A long-time practitioner demystifies acupuncture and its ascension in Western health care

### Healthy Aging

- 22** Rabbit Stew: Reconnecting With Your Inner (Younger) Athlete  
A family doctor re-discovers the thrill of competitive sports | By Jim DeVore

### Health & Nutrition

- 24** Holistic Nutrition Comes of Age  
Bauman College founder charts the evolution of the food-health connection

### Plus:

Tips for physicians to support better patient nutrition  
Basic Guidelines on Eating for Health

### You Are What You Eat

- 30** Revitalizing Breakfast  
Delicious recipes to give your day a nutritional kick-start



# Understanding Concerns About Community Water Fluoridation

By Patricia Dines

**T**he claims for community water fluoridation are certainly appealing. We'd all surely like to believe that putting a material into our shared water supply could improve everyone's dental health; save us more money than it costs; and harm no people, pets, livestock, crops, wildlife, or ecosystems.

Unfortunately, there is a body of scientific evidence that contradicts this idyllic scenario. Among the many public opponents to fluoridation of public water supplies are thousands of top scientific experts, dentists, doctors, former public health ministers, Nobel Laureates, and more. Many of them were formerly proponents of community water fluoridation (CWF) until they reviewed the science and saw that their positions needed updating. Many industrialized countries have rejected this practice.

The scientific method requires a willingness to re-examine our premises in light of the evidence. Surely we only want to add a chemical to everyone's water if this is the best option and there is incontrovertible evidence of its 100 percent safety and efficacy. Does CWF really meet those standards?

## Eight Key Facts about Community Water Fluoridation

Note: This article, with citations and links to further resources, is available online at [patriciadines.info/PHMF.html](http://patriciadines.info/PHMF.html).

**1) The use of fluoride compounds in dentistry is fundamentally different from CWF.** Knowledge and beliefs about the first do not automatically apply to the second.

With the former, scientifically tested, pharmaceutical grade fluorine compounds are applied to specific people's teeth by their informed choice, in controlled and supervised doses.

In the case of CWF, an entire population is exposed via the water supply, without their consent, to uncontrolled and unmonitored doses of different fluorine compounds—usually hydrofluorosilicic acid known to be contaminated with toxics and with no testing and approval by the U.S. Food and Drug Administration (FDA).

**2) Fluoride's primary mode of action is known to be topical, not systemic.** The benefits of fluoride are realized when applied directly to tooth surfaces, not through ingestion. Even the Centers for Disease Control and National Research Council agree with this.

**3) Both fluoridated and non-fluoridated regions have seen the same overall decline in tooth decay over the past 40 years.** Some non-fluoridated countries have experienced even lower decay rates.

**4) Studies have not proven public water fluoridation to be safe and effective.** In 2000, the British government's Final Fluoridation Study (conducted by York University and nicknamed "The York Review") was touted as "the study to end all studies into fluoridation" and was expected to confirm the claimed benefits of CWF. Instead, its systematic review found that none of the studies purporting to demonstrate the safety and effectiveness of water fluoridation met their grade A criteria—defined as "high

quality, bias unlikely"—and committed basic data analysis errors such as failing to make double-blind assessments or adjust for confounding factors.

York Professor Trevor Sheldon said, "Until high quality studies are undertaken providing more definite evidence, there will continue to be legitimate scientific controversy over the likely effects and costs of water fluoridation."

**5) No minimum daily requirement is set for fluorine.** It is not an essential nutrient; there is no such thing as a fluorine deficiency. This is clearly stated by the U.S. FDA, U.S. Public Health Service, and the National Academy of Sciences Institute of Medicine (IOM), which indicates that its 1997 report is being used incorrectly to claim otherwise.

**6) Many Americans are already exposed to fluoride amounts beyond safe levels through dental products, food, soda, tea, pharmaceuticals, pollution, and pesticides.** Children can go over the threshold just in the way they brush their teeth, for instance, using too much toothpaste, failing to rinse thoroughly, or swallowing toothpaste.

**7) Many studies have connected fluoride to health threats, even at common U.S. exposure levels.** These include significant increases in thyroid tumors, bone cancers, bone fractures, arthritis-like symptoms, decreased fertility, lower IQ, and dementia-like effects. Excess fluoride also causes dental fluorosis, a condition where fluoride disturbs dental enamel, leading to permanent stains and/or pitting, and reflecting damage happening to bones throughout the body, according to experts. In 2010, 41 percent of America's children had fluorosis, a dramatic increase from fewer than 10 percent in the 1940s. People with compromised nutrition are also more vulnerable to excess fluoride.

**8) Fluorine compounds are essentially drugs that produce a range of responses, can cause harmful side effects, and require dosage limits and individualized treatment. They are not suitable for everyone.** For example, infants and kidney patients are directed not to ingest fluoridated water. But removing fluorine from water is difficult, requiring expensive whole-house reverse osmosis systems that are especially inaccessible to community water fluoridation's primary target audience: low-income people and children.

Additional information and links to the sources referenced in this article are available online, including a link to "A Response to Pro-Fluoridation Claims," from *The Case Against Fluoride*, by Dr. Paul Connett, et al. Dr. Connett, a chemistry professor at St. Lawrence University, believed that CWF was effective until he looked at the science contradicting it. He is now the director of the Fluoride Action Network.   © Copyright Patricia Dines, 2013. All rights reserved

**About the author:** Patricia Dines has been an independent freelance author, journalist, and public speaker for more than 25 years, covering health and environmental issues.