



THE METROPOLITAN WATER DISTRICT  
OF SOUTHERN CALIFORNIA

# Fluoridation

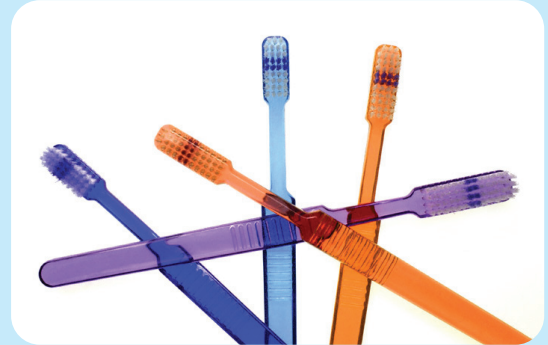
... at a glance

## Background

The Metropolitan Water District of Southern California is among a majority of the nation's public water suppliers to add fluoride to drinking water in order to prevent tooth decay.

In line with recommendations from the California Department of Public Health, as well as the U.S. Centers for Disease Control and Prevention, Metropolitan adjusts the natural fluoride level in its water, which ranges from 0.1 to 0.4 parts per million, to the optimal range for dental health of 0.7 to 0.8 parts per million.

Fluoride levels in drinking water are limited under California state regulations to a maximum of 2 parts per million.



## About Fluoride

- Fluoride is a naturally occurring mineral found both in surface water (water from snowmelt, rivers and streams) as well as groundwater.
- Fluoride's benefits for teeth were discovered in the 1930s by scientists who saw extremely low tooth decay rates among people whose water supplies had a significant amount of natural fluoride.
- Fluoride helps teeth resist decay by strengthening the protective layer of tooth enamel, and can reverse newly formed cavities.
- Fluoride has been added to U.S. drinking water supplies since 1945.
- The three primary agents used to fluoridate water are sodium fluoride (made of sodium and fluoride atoms bonded together), sodium fluorosilicate (sodium, silicon and fluoride) and fluorosilicic acid (hydrogen, silicon and fluoride). Metropolitan uses fluorosilicic acid because of the safety and reliability this treatment chemical offers.
- Of the 50 largest cities in the U.S., 43 fluoridate their drinking water.
- While exposure to fluoride can cause dental fluorosis, most cases in communities with optimally fluoridated water are very mild and characterized by barely visible white opaque spots on the teeth.
- The U.S. Department of Health and Human Services has not recognized claims that low-level fluoride exposure is linked to occurrences of cancer, brain damage or osteoporosis.

## Benefits

- At a cost of less than a dollar a family per year, the dental and medical health communities believe fluoridation offers Southern California consumers an additional level of public health protection. Metropolitan estimates the total cost to be about \$2 per acre-foot of water. An acre-foot (nearly 326,000 gallons) serves two typical Southland families for one year.
- The American Dental Association estimates that the lifetime cost per person to fluoridate a water system is less than the cost of one dental filling. Every dollar spent on fluoridation saves \$38 in avoided dental bills, according to the CDC.
- More than 60 years of scientific research and experience have found that people living in communities with fluoridated water have healthier teeth and fewer cavities than people living where water is not fluoridated.
- Fluoridated water offers everyone equal health benefits.

“Community water fluoridation continues to be the most cost-effective, practical and safe means for reducing and controlling the occurrence of tooth decay in a community.”

— *David Satcher, M.D., Ph.D.*  
*U.S. Surgeon General, 2001*

# Fluoridation

## Supporters

- Community water fluoridation is supported by most major national and international health service organizations. Supporters include: the American Dental Association, American Medical Association, American Academy of Pediatric Dentistry, U.S. Centers for Disease Control and Prevention, and the World Health Organization.
- The U.S. Centers for Disease Control and Prevention has recognized fluoridation of drinking water as one of the 10 great public health achievements of the 20th century.
- Since 1945, the U.S. Surgeon General's office has committed its support for community fluoridation. As then Surgeon General Dr. Richard H. Carmona said in July 2004, "Community water fluoridation continues to be the most cost effective, practical and safe means for reducing and controlling the occurrence of tooth decay in a community."

## Metropolitan's Position

Metropolitan's Board of Directors first took a serious look at fluoridation in October 1995, when Gov. Pete Wilson signed a new state law conditionally requiring fluoridation of any public water supply with at least 10,000 customers. Because the law did not provide funding for utilities, many water agencies found the cost of fluoridating prohibitive. Some cities, including two of Metropolitan's member agencies, Los Angeles and Santa Monica, did move forward with fluoridation in the absence of state funding. Two other member agencies—the cities of Long Beach and Beverly Hills—as well as member agencies of the Municipal Water District of Orange County, the cities of Fountain Valley and Huntington Beach—fluoridated water prior to the 1995 law.

These changes to the law now require water systems with 30,000 service connections to fluoridate their supplies if funding is available. As part of that push, seven public health officials representing each of the six Southern California counties in Metropolitan's 5,200-square-mile service area, urged the Metropolitan board to reconsider fluoridating its supplies. In February 2003, Metropolitan's board adopted a policy that directed the cavity-fighting agent to be added to the district's treatment processes.

In September 2003, the California Dental Association Foundation, in conjunction with the California Fluoridation 2010 Work Group, provided Metropolitan \$5.5 million in grant monies to design and construct fluoridation facilities at each of its five treatment facilities. This grant funding represents the capital cost for planning, design, purchase and installation of the equipment necessary to begin fluoridating Metropolitan's treated water supply. This change in Metropolitan's treatment process was permitted and approved by the state of California Department of Public Health.

**There are many places to go for additional information about the fluoridation of drinking water. They include:**

**Centers for Disease Control and Prevention**  
<http://www.cdc.gov/fluoridation/>

**National Cancer Institute**  
<http://www.cancer.gov/cancertopics/factsheet/Risk/fluoridated-water>

**American Dental Association**  
<http://www.ada.org/public/topics/fluoride/news.asp>

**National Institute of Dental and Craniofacial Research**  
<http://www.nidcr.nih.gov>

**American Water Works Association**  
<http://www.awwa.org>

**California Department of Public Health**  
<http://www.cdph.ca.gov>

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### Mission Statement

The mission of the Metropolitan Water District of Southern California is to provide its service area with adequate and reliable supplies of high quality water to meet present and future needs in an environmentally and economically responsible way.



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