Q & A: Fluoridation Facts for San Diego

WHAT IS WATER FLUORIDATION?

- **Water fluoridation is the process of adjusting the natural fluoride content of water to the optimum level that prevents tooth decay.** Fluoride is a naturally occurring mineral present in all water sources, soils and to some extent in most foods and beverages. It is necessary for healthy teeth and bones throughout our lifetime. Fluoridation is similar to adding Vitamin D to milk to prevent rickets, or extra Vitamin C to orange juice.[1]

- Through drinking fluoridated water, **fluoride is incorporated into the enamel structure of a child's tooth, making it more resistant to decay-producing acids created by bacteria.** At all ages, fluoride released into the saliva provides a degree of remineralization in areas where decay may be starting, as well as some activity against plaque bacteria.[1,2]

IS FLUORIDATION SAFE AND EFFECTIVE?

- Fluoridation provides dental health benefits to the entire community. Since water fluoridation began in the US over 60 years ago, decades of studies clearly demonstrate that **water fluoridated at the recommended optimum level is safe, and reduces tooth decay up to 40% in children and adults**. These reliable, scientific studies also show **there is no harmful effect on humans or the environment.**[1,2]
- The U.S. Surgeon General's Report states that **community water fluoridation remains one of the 10 great achievements of public health in the 20th century**--an inexpensive means of improving oral health that benefits all residents of a community, young and old, rich and poor alike; an ideal public health measure.[2]

WHY SHOULD SAN DIEGO FLUORIDATE?

- Oral Health is essential to general health and well being. **Tooth decay is an infectious, transmissible disease** caused by bacteria. It is an infection that is highly preventable—but expensive to treat, with very serious and costly consequences if left untreated.[1,2]

- The Surgeon General reports profound disparities in the oral health of our citizens, and that **poor children and elders, as well as members of racial and ethnic minority groups, are particularly vulnerable**. Those with disabilities, or who are otherwise medically compromised, are also at greater risk for oral disease.[2]

- More teeth are lost from decay than any other cause. It is the number one chronic disease of childhood--an epidemic of a largely *preventable* disease! [2]
- The "*California Smile Survey*," a 2005 needs assessment limited to kindergarten and grade 3, found that almost two-thirds of California's children are affected by dental disease by the 3rd Grade, making it the most prevalent children's health problem in the state. The Survey also found that Latino children suffered at nearly twice the rate of Caucasian children surveyed.[5]

- Based on this survey, The Anderson Center for Dental Care of Rady Children's Hospital and Health Center determined that as many as 311,748 children in San Diego County schools (62%) have experienced tooth decay, and up to 140,934 of them (28.3%) currently may be suffering from untreated tooth decay. [7]

WHAT ARE THE COST SAVINGS?

- One out of every 8 Americans lives in California. **Californians spend $4 billion annually on dental care.** This is happening in an era when unlike many other serious diseases, **dental disease is almost entirely preventable.** [2]

- The April 2000 *Journal of Dental Research* reports that **the use of fluoride in the past 40 years has been the primary factor in saving some $40 billion in oral health care costs in the U.S.** [8]

- Using a 2001 study, the ADA reports the approximate annual cost of continuing fluoridation in a city the size of San Diego is 50 cents per person/per year ($40.50 for an average lifetime).[1] **The City of San Diego estimates an anticipated annual cost per person of less than 50 cents. (***San Diego Union Tribune, 9/10/10)*
- We can compare this to the average cost of $100 to fill just one small cavity, and fluoridation saves multiple cavities over a lifetime. **CDA estimates that for every $1 spent on fluoridation in California, up to $140 of dental treatment costs could be saved.**[4]
- In 1999, The Anderson Center for Dental Care found that it cost $1200 to $4700 to treat one child suffering from rampant Early Childhood Caries. **Today the estimated cost has risen to $6,000 to $15,000.**[7]
- **Fluoridation is the single most cost-effective preventive oral health program available.**[2]

WHO SUPPORTS FLUORIDATION?

- At the 2005 San Diego County Oral Health Forum, **"Insufficient fluoride use" was identified by all discussion groups as a priority issue.** Promotion of public support for community water fluoridation was a strategy recommended to ameliorate the problem. The 2010 Forum noted the successful fluoridation programs countywide and the need to establish fluoridation in additional underserved areas.

- **The ADA lists nearly 100 national and international organizations supporting fluoridation, including virtually every major scientific and health related organization.** The U.S. Centers for Disease Control and Prevention included fluoridation of drinking water as one of the 20th Century's **"Ten Great Public Health Achievements."**[1,3]
- **The Pew Trust "Center On The States" includes fluoridation as one of four well-researched cost-effective strategies to prevent tooth decay in children and to reduce treatment costs.**[6]

- The San Diego Fluoridation Coalition represents over **100 local organizations, agencies and community leaders, plus over 12,000 individuals,** working together to achieve. . . .

WATER FLUORIDATION:

ONE OF THE FOUR PILLARS OF PUBLIC HEALTH,

along with
PASTEURIZATION OF MILK,
IMMUNIZATION OF CHILDREN
AND WATER PURIFICATION

FLUORIDATION EQUALS PREVENTION

References:

[1] *"Fluoridation Facts"* American Dental Association, 2005. www.ada.org/fluoridation

[2] CDC, Div. of Oral Health, National Center for Chronic Disease Prevention & Health Promotion, 2000. www.cdc.org/fluoridation/

[3] *"Achievements in Public Health 1990-1999—Fluoridation of Drinking Water to Prevent Dental Caries" Morbidity & Mortality Weekly Report,* CDC, Oct.22, 1999.

[4] California Dental Association, Sacramento, CA. www.cda.org

[5] *"Mommy It Hurts To Chew, The California Smile Survey, An Oral Health Assessment of California's Kindergarten and 3rd Grade Children,"* Dental Health Foundation, Feb. 2006. www.dentalhealthfoundation.org

[6] "The Cost of Delay: Four Effective Strategies" Pew Center On The States, Feb.19, 2010. www.pewcenteronthestates.org/report

[7] Anderson Center for Dental Health, Rady Children's Hospital website, www.rchsd.org/ourcare/programservices/c-d/dentalcare/dentalhealth/C007841

[8] International Collaborative Research on Fluoride, J Dent Res April 2000 79: 893-904 www.jdr.sagepub.com/content/79/4/893.full.pdf+html

The San Diego County Dental Society www.sdcds.org/fluoridation

for further information contact the San Diego Fluoridation Coalition 619-444-6463 sandiegosmiles@cox.net