

FACT SHEET

FLUORIDATION OF TAP WATER

The following information was provided by Mecklenburg County Medical Director Stephen R. Keener, MD, MPH

Beneficial Health Effects

Fluoridation of community drinking water is a major factor in the decline of tooth decay in the United States. Although other fluoride-containing products are available, water fluoridation remains the most equitable and cost-effective method of delivering fluoride to all members of most communities. CDC has recognized community water fluoridation as one of 10 great public health achievements of the 20th century. [Benefits](#) are provided over a lifetime. The dental health of adults as well as children is enhanced because of water fluoridation.

Adverse Health Effects

The weight of the peer-reviewed scientific evidence does not support an association between water fluoridation and any adverse health effect or systemic disorder, including an increased risk for cancer, Down syndrome, heart disease, osteoporosis and bone fracture, immune disorders, low intelligence, renal disorders, Alzheimer disease, or allergic reactions.

A study published by Bassin and colleagues suggests an association between drinking fluoridated water and osteosarcoma in adolescent males. The findings from a larger study on this topic, conducted by the same institution, are expected soon. In making recommendations on community water fluoridation, the CDC and the U.S. Public Health Service are always guided by one overriding goal and interest—all our recommendations are designed to protect the health and well-being of the public. These recommendations are based on reviews of the best available science. CDC continues to strongly support community water fluoridation as a safe and effective public health measure to prevent and control tooth decay and to improve overall health.

Environmental Impact

Research findings do not support an association between water fluoridation and negative health effects on plants and animals. Fluoride is a mineral that occurs naturally in virtually all waters. It is present in seawater at levels between 1.2 to 1.4 mg/L and in surface waters from 0.1 to over 1.0 mg/L, and can be found in some ground water over 10 mg/L. Because of the dilution effect of receiving waters relative to the volume of treated wastewater, a river's fluoride concentration will be measured at the same level upstream and downstream of a fluoridated community. [Additives](#) used for community water fluoridation are closely regulated and monitored.

Summary

Charlotte became the first North Carolina community to fluoridate its water in 1949. Currently 88% of North Carolinians who receive their water from community water systems benefit from fluoride. Community water fluoridation has resulted in dramatic improvements in the dental health of our citizens. The Centers for Disease Control and Prevention, the American Dental Association, and the American Public Health Association are three organizations which strongly support community water fluoridation.

Resources

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

American Dental Association <http://www.ada.org/public/topics/fluoride/index.asp#fluridationfacts>

American Public Health Association
<http://www.apha.org/advocacy/policy/policysearch/default.htm?id=1373>