



**City of Phoenix**  
WATER SERVICES DEPARTMENT

**Q&A**

# **Fluoride**

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**BACKGROUND:** Due to the increasing presence of fluoride in products such as toothpaste and mouthwash, health authorities have determined that the amount of fluoride maintained in tap water systems should be lowered to the amount Phoenix uses. Phoenix always has complied and will continue to comply with Environmental Protection Agency regulations regarding fluoride.

## **1. Does the city of Phoenix add fluoride to the water supply?**

Yes. Fluoride is a naturally occurring element in the source water for the city of Phoenix. The city fluoridates its tap water only to maintain the naturally occurring fluoride level to the Center for Disease Control (CDC) recommended amount of 0.7 mg/L. Phoenix has always maintained fluoride at the 0.7 mg/L level that is now recommended for all water systems by the U.S. Department of Health and Human Services (HHS) and the U.S. Environmental Protection Agency (EPA)

Recent sampling of the water entering the city of Phoenix distribution system showed fluoride levels between 0.6 and 0.8 mg/L, well within the CDC's recommended control range of 0.6 to 1.2 mg/L for maintaining a fluoride amount of 0.7 mg/L. Phoenix complies with EPA regulations regarding fluoride and has always maintained fluoride at only the amount now recommended for all water systems.

## **2. Why is the amount of fluoride in tap water being lowered?**

Due to the increasing presence of fluoride in products such as toothpaste and mouthwash, health authorities have determined that the amount of fluoride maintained in tap water systems should be lowered to the amount Phoenix uses.

## **3. Who said we should add fluoride to our water?**

The addition of fluoride to the city's water treatment process was approved by the City Council and Mayor in June 1990. This decision was based on public input, recommendations from numerous federal, state and local public health officials (including the Surgeon General of the US Public Health Service and the Centers for Disease Control) and review of four decades of research supporting fluoridation as a safe and effective method for reducing the incidence of dental cavities. Since 1950, the American Dental Association (ADA) has unreservedly endorsed the fluoridation of community water supplies as safe, effective and necessary in preventing tooth decay.

#### **4. Why is fluoride added to our tap water supply?**

Fluoride containing compounds are used for preventing tooth decay throughout the nation. They are used for water fluoridation and in many products associated with oral hygiene. Community water fluoridation is the addition of fluoride to adjust the natural fluoride concentration of a community's water supply to the level recommended for optimal dental health.

#### **5. Is adding fluoride to the water supply safe?**

Community water fluoridation is an effective, safe and inexpensive way to prevent tooth decay. Fluoridation benefits city of Phoenix residents of all ages and socioeconomic status. The Centers for Disease Control (CDC) has recognized the fluoridation of drinking water to prevent dental decay as one of 10 great public health achievements of the 20<sup>th</sup> century. Over the past 60 years, optimal fluoridation of community drinking water has been a major factor for the decline of tooth decay. The city of Phoenix stays current on continuing research being conducted on fluoride, such as the *Scientific Assessments and Actions on Fluoride* just announced by the HHS and EPA. This allows the city to immediately be aware of any new scientifically defensible evidence regarding the health impacts of fluoridation. The safety of our customers and their families always will be the paramount consideration in the treatment and delivery of our tap water.

#### **6. Is fluoride in the water supply regulated?**

Fluoride is regulated under the Safe Drinking Water Act. The Environmental Protection Agency has established a maximum contaminant level (MCL) of 4.0 milligrams per liter (mg/L or ppm) of fluoride in drinking water.

The city of Phoenix performs routine monitoring for fluoride and many other compounds in the water supply. This data is reported on an annual basis in the Water Quality Report which is distributed to water customers and is available on the city of Phoenix web site at <http://phoenix.gov/menu/resutilwaterrept.html>

While the levels of fluoride within the water distribution system can fluctuate due to a variety of factors including the influence of groundwater which can contain naturally-occurring fluoride, the amount of fluoride delivered by Phoenix is well below both the current EPA primary and secondary standards for fluoride of 4.0 and 2.0 mg/L. If the EPA makes changes to the regulations regarding fluoride, Phoenix will comply with those updated regulations, as it has in the past.

#### **7. What are the possible health effects of too much fluoride?**

The 0.7mg/L amount of fluoride Phoenix places in its tap water is nowhere close to the 4.0 maximum contaminant level established by the Environmental Protection Agency. Some people who drink water containing fluoride in excess of the 4.0 MCL over many years could get bone disease, including pain and tenderness of the bones. Fluoride in drinking water at half the MCL or more may cause mottling of children's teeth, usually in children less than nine years old. Mottling, also known as dental fluorosis, may include brown staining and/or pitting of the teeth, and occurs only in developing teeth before they erupt from the gums.

**8. If I don't want fluoride in my water, how can I remove it?**

Some in-home water treatment processes may remove fluoride. The city of Phoenix does not endorse any specific vendors or products nor does it provide information on water treatment processes. More information about home treatment systems is available from the Arizona Water Quality Association at 480-947-9850 or by writing to 6819 E Diamond St., Scottsdale, AZ 85257.

**9. Where can I find additional information about fluoride?**

You can obtain further information about community water fluoridation by calling your dentist or visiting the websites of the Arizona Department of Health Services Office of Oral Health or the Centers for Disease Control Division of Oral Health. Information about fluoride levels in the city of Phoenix tap water system is available for review online in the current Water Quality Report at:

<http://phoenix.gov/menu/resutilwaterrept.html>