



# Nipomo Community Services District

## Supplemental Water – Chloramine Facts

With delivery of supplemental water, the disinfectant in the District's water supply will be switched from chlorine to chloramine. The District is making this change to ensure system compatibility with the new water received from Santa Maria.

### What are "chloramines"?

Chloramines are a type of drinking water disinfectant that are formed when chlorine is combined with a small amount of ammonia.

### Chlorine and chloramines -- what's the difference between these disinfectants?

Chlorine is most commonly used because it's quick, effective, safe, and the least expensive method of water disinfection. However, chlorine can also form regulated chemical compounds called "disinfection byproducts" when it mixes with naturally occurring organic compounds found in surface water. **Chloramines are safe and effective** and they reduce the formation of disinfection byproducts in potable water supplies that include surface water sources - like our new supplemental water supply.

### Are chloramines safe?

**Yes.** Chloramines have been used for disinfection purposes for more than 90 years and are approved by state water quality regulators.

### Are there special considerations for chloramines?

**Yes,** the following can be impacted by chloramines:

- kidney dialysis
- aquariums

### Kidney Dialysis

Medical centers that perform dialysis are responsible for purifying the water that enters the dialysis machines to ensure they don't have chlorine, chloramines or other substances. Persons with home dialysis machines should check with their physician or equipment supplier to ensure purification techniques will remove chloramines. Please contact your doctor and dialysis equipment provider for more information.

### Aquariums

Chlorine and ammonia are toxic to all fish. Chloramines can stay in the water for several weeks, so a dechlorinating agent must be added to remove them. This includes the water for both freshwater and saltwater aquariums. Check with your local pet or fish store.



# Nipomo Community Services District

## How much of a dechloraminating agent, or what type of filter should be used?

Pet stores should have a product that will quickly neutralize both the chlorine and ammonia molecules. Also, ask your pet supplier about types of filtration equipment that can be used.

## Will reverse osmosis systems remove chloramines?

**No.** Salts can be caught by the reverse osmosis systems, but chloramines pass through easily.

## Can persons with kidney ailments, diabetes, or on low-sodium diets drink chloraminated water?

**Yes.** People with medical conditions should consult their doctor, but in general, chloraminated water can be used to drink, bathe, and clean with. It can be used for any other purpose except for dialysis treatment.

## What about people who are sensitive to chemicals?

The amount of chloramines will be extremely small – typically 1.5 parts per million and no more than 4 parts per million can be expected in the District water supply. The ratio will be approximately five parts chlorine to one part ammonia to form monochloramine. If you are concerned that this small amount of ammonia could cause problems for you, consult your physician. Additionally, Granular Activated Carbon (GAC) filters on your home's water supply, if properly maintained, can remove the chloramines.

## Do home water softeners remove chloramines?

Softeners that have a Granular Activated Carbon (GAC) filter may be effective at removing chloramines.

## Will chloramines harm plants?

**No.** It is safe to water plants of any type, including ornamentals, vegetables, fruit and nut trees.

## Will chloramines affect my home's pipes?

Chloramines are no more aggressive than chlorine, but is a more stable disinfection method.

## Are chloramines new?

**No.** Many counties and cities in the U.S. have used chloramines for decades. Chloramines have been approved by the US EPA for use as a municipal drinking water disinfectant for decades.

## Will chloramination affect routine household water uses?

**No.** Chloramination will not affect routine water uses such as food preparation, household laundering and dishwashing, watering plants, etc.

Source: Center for Disease Control and Prevention (CDC)

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# Nipomo Community Services District

## Supplemental Water – Fluoridation Facts

The District does not add fluoride to its water supply; however, the City of Santa Maria adds safe and approved amounts of fluoride. The District will not add fluoride, so District water will contain fluoride at levels equal to or less than found in the City's water. According to the Center for Disease Control (CDC), "community water fluoridation has been a safe and healthy way to effectively prevent tooth decay. The CDC has recognized water fluoridation as one of 10 great public health achievements of the 20th century. The proper amount of fluoride from infancy through old age helps prevent and control tooth decay."

### Safe

- The safety and benefits of fluoride are well documented and have been reviewed comprehensively by several scientific and public health organizations.
- No convincing scientific evidence has been found linking community water fluoridation (CWF) with any potential adverse health effect or systemic disorder such as an increased risk for cancer, Down syndrome, heart disease, osteoporosis and bone fracture, immune disorders, low intelligence, renal disorders, Alzheimer's disease, or allergic reactions.
- Documented risks of CWF are limited to dental fluorosis, a change in dental enamel that is primarily cosmetic in its most common form. In the United States today, most dental fluorosis is of the mildest form, with no effect on how teeth look or function.

### Effective

- The US Community Preventive Services Task Force issued a strong recommendation in 2001 and again in 2013 for CWF for the prevention and control of tooth decay.
- Water fluoridation prevents tooth decay by providing frequent and consistent contact with low levels of fluoride, ultimately reducing tooth decay by about 25% in children and adults.
- Schoolchildren living in fluoridated communities on average have 2.25 fewer decayed teeth compared with similar children not living in fluoridated communities.

### Reduce Disparities

- CWF has been identified as the most cost-effective method of delivering fluoride to all members of the community regardless of age, educational attainment, or income level.

### Cost-Saving

- By preventing tooth decay, CWF has been shown to save money, both for families and the health care system.



# Nipomo Community Services District

- The return on investment for CWF varies with size of the community, increasing as the community size increases. CWF is cost-saving—even for small communities.

## Public Health Achievement

- Because of its contribution to the dramatic decline in tooth decay over the past 70 years, CDC named CWF 1 of 10 great public health achievements of the 20th century.
- In 2012, more than 210 million people, or nearly 75% of the U.S. population served by public water supplies, drank water with optimal fluoride levels to prevent tooth decay.

## International Fluoride Use

- Nearly all developed countries practice fluoridation, just not always through water. Instead, salt is often used as the primary way of providing fluoride to the public.
- The World Health Organization supports fluoridation of water, salt, and milk as a way to reduce dental decay.

Source: Center for Disease Control and Prevention (CDC)