

Have a question?

Visit the wellcare® Hotline at 888-395-1033



888-395-1033 FREE

## Fluoride in well water



Humans and animals use fluoride in the structure of their bones and teeth. In proper amounts, fluoride reduces the formation of cavities in children. Many public water systems add fluoride to the water for this reason.

For some persons on private water wells, fluoride can be a concern. Naturally occurring fluoride is present in the environment. Water dissolves fluoride compounds when it passes over or through soil and rocks, resulting in small amounts in virtually all water sources.

Excessive ingestion of fluoride can cause fluorosis—the discoloration of teeth and surface irregularities. The U.S. EPA has set a non-enforceable secondary standard of 2 milligrams per liter (mg/L) to protect against dental fluorosis. Children under the age of nine should not drink water that has more than 2 mg/L of fluoride. The agency has set a Maximum Contaminant Level of 4 mg/L. Some people who drink water with fluoride in excess of 4 mg/L could get bone disease.

In pockets of states throughout the country, elevated concentrations of fluoride occur naturally. In a nationwide sampling, the U.S. Geological Survey found that 85 percent of residential wells tested below the U.S. EPA's

## Be a “Groundwater Advocate”

**Groundwater Awareness Week**  
**March 5-11, 2017**

**national**  
**groundwater**  
  
**awareness week**  
**March 5-11, 2017**

Every week is a groundwater awareness week at the National Ground Water Association (NGWA)! We have an observation well in the front yard. And much of our water supply is groundwater. You could say all is *well* with our water. We like to *whet* our appetites with groundwater. Our coffee *grounds* even taste better with groundwater!

Some people might think we're *all wet*, but we love groundwater at NGWA! What about you?

If groundwater is your water supply and you care about it, become a “Groundwater Advocate.” It's simple: Just promote groundwater and National Groundwater Awareness Week coming up March 5-11, and we'll list you as a groundwater advocate on our Groundwater Awareness Week webpage. Send an email to [ctreyens@ngwa.org](mailto:ctreyens@ngwa.org), put “I'm a Groundwater Advocate” in the subject line—and let us know whether you are an individual or representing an organization, and what you did or intend to do to make someone aware of groundwater.

Feel free to share anything from our [Groundwater Awareness Week webpage](#) or our website for well owners, [WellOwner.org](http://WellOwner.org).

Maximum Contaminant Level of 4 mg/L.

To find out whether you live in an area of problematic fluoride, check with your local or state health department—or with a certified drinking water testing laboratory. To find such a lab in your state, [click here](#).

Two possible options involving the well itself may reduce problematic fluoride in well water. First, a qualified water well system professional may be able to retrofit a well to block off fluoride-producing water intake zones. Another option could be to have a new well drilled that bypasses fluoride-producing zones of groundwater.

Other solutions involve home water treatment:

- **Reverse osmosis** removes dissolved ions from water by forcing water through a semipermeable membrane, retaining most ions while transmitting the water. RO units typically are installed at the point of use, such as the kitchen sink, but can be installed where the water enters the house.
- **Ion exchange** typically involves a physical/chemical process in which water passes through a specialized resin, inducing an exchange of ions to achieve removal. Ion exchange systems usually treat all the water coming into the house.
- **Distillation** involves evaporating water and condensing the vapor, requiring significant heat energy and cooling capacity. It is generally installed at the point of use.

Use water treatment products certified by an independent product testing lab such as NSF (National Sanitation Foundation) and the Water Quality Association's Gold Seal program.



## Well Owner's Owners' Manual

Use this [simple online well owner's manual](#) to learn about and set automatic email reminders on water testing, well maintenance, and groundwater protection. Get some peace of mind. Protect your family. Be a good steward of your well system and groundwater!

