

Safe Well Water RI

Trusted, expert information

Tip Sheet 6



“Tip sheets helped us learn about our well water.”

Get Tip Sheets at www.riweltesting.org:

- 14 Tip Sheets about harmful substances
- 10 Tip Sheets about treatment choices
- 3 Tip Sheets about other topics of concern

Well water is groundwater, meaning that it comes from the water stored in the earth and rocks below ground. Even though groundwater is *under* the surface, substances *on* the surface, such as gas from a lawnmower or animal waste, can seep down and pollute it. Some natural substances stored in rocks and soil can also affect the smell, taste, color, and safety of well water.

Fluoride in Drinking Water Wells

Fluoride: A mineral in certain areas of Rhode Island groundwater and well water that helps protect against tooth decay

Fluoride occurs naturally in Rhode Island groundwater and well water. The natural amount varies by location. The right amount helps protect both kids and adults from tooth decay. But, the amount in well water can be too little or too much.

How does fluoride affect teeth?

In the right amount, research has shown that fluoride helps infants and children develop strong baby and adult teeth which resist acid breakdown. This reduces the amount of tooth decay.

Too much fluoride can lead to small ‘white spots’ on kids’ teeth (mild fluorosis) or in rare, extreme cases, visible changes (severe fluorosis). It can affect the way teeth look with possible brown spots and rough, pitted surfaces. Learn about fluorosis here: www.cdc.gov/fluoridation/faqs/dental_fluorosis/index.htm.

Too little fluoride doesn’t help protect against tooth decay.

If you have children under 12 living in the house, test for fluoride! Talk with your dentist or doctor about your test results.

How does fluoride get into well water?

Bedrock wells are most likely to have high levels of fluoride, which occurs naturally in the bedrock itself. As groundwater passes through minerals, rocks, and soil it picks up fluoride, which becomes dissolved in it.



How will I know if I have too much fluoride in my well water?

You won't know unless you have your water tested. Fluoride has no smell or taste. And, your water will look the same as usual.

Use a State-certified lab to test your water.

Find a list here: www.health.ri.gov/find/labs/drinkingwater.

Compare the numbers and letters on your lab test results with the standards (limits) set by the United States Environmental Protection Agency (EPA).

The EPA standard for fluoride is a Maximum Contaminant Level (MCL). MCL is a water quality standard for substances that can harm health.

EPA limit (MCL) for fluoride:

4 mg/L (milligrams per liter)

4 ppm (parts per million)

Dental range best for kids and adults:

0.6 - 0.9 mg/L (milligrams per liter)

If your water tests above 0.6, you do not need to use fluoride supplements. Talk to your doctor or dentist.

Important: If your test results show less than 0.6 milligrams per liter of fluoride, it is not enough to protect teeth. Talk to your doctor or dentist about fluoride supplements.

What can I do about too much fluoride in my well water?

Two possible solutions if your well water tests high for fluoride:

1. **Use bottled water.** If your well water has fluoride levels higher than 2.0 milligrams per liter, you can give children under age 12 bottled water for drinking. Check labels on bottles or have bottled water tested so you know whether and how much fluoride is in it.
2. **Install a point-of-use treatment system.** This means installing a unit at the kitchen sink, since treatment is needed only for water used for drinking and cooking.

Treatment systems include:

- ▶ Distillation—Tip Sheet 20
- ▶ Ion exchange—Tip Sheet 21
- ▶ Reverse osmosis—Tip Sheet 24
- ▶ Activated alumina—Call us

Important: Before you install a treatment system, call us for expert advice. *Before* you buy a system, ask how it will be installed and whether this costs extra. Get at least 3 price quotes. Learn the questions to ask. See Tip Sheet 16. *After* you buy a system, be sure to:

1. Keep all the paperwork and directions.
2. Learn what you must do to maintain the system and do it.

Learn more

Get Tip Sheets about choosing and buying water treatment systems at www.riwelltesting.org.