



If you are on a private well or spring, the Health Department recommends testing your water regularly using these three test kits, called the **Vermont Homeowner Testing Package**:

- Total coliform and *E.coli* bacterial test **every year**
- Inorganic chemical test **every five years**
- Gross alpha radiation screening **every five years**

You can order the **Vermont Homeowner Testing Package** for \$159 or individual drinking water test kits from the Health Department Laboratory at 800-660-9997 or 802-338-4724 – or use another certified drinking water lab. For a list of certified labs, visit [HealthVermont.gov/lab/drinking-water](https://www.healthvermont.gov/lab/drinking-water).

## Bacterial Test (every year)

Coliform bacteria are a large group bacteria found in soil, plants, and the intestines of humans and other animals. Coliform bacteria do not necessarily make you sick, but may mean your well is contaminated.

If your result shows bacteria are “detected,” boiling water for one minute will kill bacteria so it can be used for drinking and cooking.

## Inorganic Chemical Test (every five years)

Test for these chemicals: **arsenic, chloride, copper, fluoride, hardness, iron, lead, manganese, nitrate, nitrite, sodium and uranium.**

These elements are widely found throughout Vermont groundwater and can cause nuisance problems, like color or taste, or can cause negative health effects.

## Gross Alpha Screening (every five years)

This test measures the activity of naturally occurring radioactive elements, such as uranium and radium, commonly found throughout the groundwater in Vermont. Gross alpha results and uranium results can be used to find out if additional testing or treatment is needed. For more information visit [HealthVermont.gov/water/radioactive-elements](https://www.healthvermont.gov/water/radioactive-elements).

## Other Water Problems

If your water has an unusual smell, taste, color or sheen, switch to another safe water source until test results are known. For more info visit [HealthVermont.gov/water](https://www.healthvermont.gov/water) or call the Private Drinking Water Program at 800-439-8550 or 802-951-5790 for guidance.

Learn more about water testing at [HealthVermont.gov/water/testing](https://www.healthvermont.gov/water/testing)

## What are the health concerns?

**Bacteria.** Effects from coliform bacteria can range from no effects to severe cramps and diarrhea. Go to [HealthVermont.gov/water/bacteria](https://www.healthvermont.gov/water/bacteria) for more information.

**Arsenic** has been linked to increased lifetime risk for bladder, lung or skin cancer. The maximum contaminant level (MCL) in water is 0.010 milligrams per liter (mg/L).

**Chlorides** do not cause health problems, but high chloride levels give drinking water an unpleasant taste and may be a sign of other problems. The maximum level in water is 250 mg/L.

**Copper.** Elevated levels of copper can stain plumbing fixtures and give the water a metallic taste. High amounts of copper in water can cause stomachaches, vomiting or diarrhea. The maximum level in water is 1.3 mg/L.

**Fluoride** is a mineral found in nature that helps the body resist tooth decay. You should know if well water contains fluoride so you can make adjustments to infant formula or children's supplements. The maximum level in water is 4.0 mg/L.

**Hardness** causes no known health risks but can cause reduced lathering of soap, and buildup of scale in water heaters, cookware and plumbing.

**Iron.** Elevated levels of iron can stain clothing, sinks, toilets and bathtubs. Iron can give water a metallic taste, but is not known to cause negative health effects. The maximum level in water is 0.3 mg/L.

**Lead** is a toxic metal that can come from older plumbing. It can hurt the brain, kidneys and nervous system, especially for children and pregnant women. There is no safe level of lead in the body, and Vermont has set a health advisory level of 0.001 mg/L.

**Manganese** is an essential element, but high amounts could affect the nervous system. It can discolor water and stain clothing and bathroom fixtures grey/black, usually when levels are higher than 0.050 mg/L. The maximum level in water is 0.300 mg/L.

**Nitrate/Nitrite.** High nitrate levels in your water system may also show contamination from sources such as septic systems, fertilizers or farm fields. The maximum level for nitrates in water is 10.0 mg/L and for nitrites is 1.0 mg/L. However, nitrate levels can fluctuate. If your nitrate level is more than 5.0 mg/L, test your water for nitrate every 3 to 6 months.

**Sodium.** Water with high levels of sodium tastes salty, can corrode metal piping, and can contribute to high blood pressure. Salt from road de-icing may cause sodium levels to rise in wells close to roads. The maximum level in water is 250 mg/L.

**Uranium** is a radioactive element found in nature, including soil, water, rocks, plants and food. Elevated levels of uranium may increase a person's risk of kidney damage or lifetime risk of cancer. The maximum level in water is 0.020 mg/L.