

What Should I Do if My Water is High in Nitrates

- Stop drinking or using the water to cook. Water can still be used for bathing, brushing teeth and handwashing.
- Use safe water sources such as bottled water or a pitcher that removes nitrates. **DO NOT BOIL WATER.** Boiling water does not remove nitrates and can cause higher nitrate levels.
- Retest your well to confirm results
- Find a long-term solution to reduce nitrates such as:
 - Install a water treatment system
 - Point of use systems** treat water coming from one faucet like a kitchen sink. Not as effective for HIGH levels
 - Point of entry systems** treat all water coming into the house and provides safe drinking water throughout the home.
 - Drilling a new well

Check to see if you are eligible for the ARPA well compensation grant program



Scan me!



COLUMBIA COUNTY

Additional Resources

Nitrate in Private Wells:
Wisconsin Department of Health Services
<https://bit.ly/privatewells>

Nitrate in Drinking Water:
Wisconsin Department of Natural Resources
<https://bit.ly/nitratedrinkingwater>

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● **Nitrates in**
● **Private**
● **Well Water**

Nitrate levels greater than 10 ppm exceed state and federal standards for nitrate in public drinking water supplies

What are Nitrates

Nitrate (NO₃⁻) is a compound made up of nitrogen and oxygen. It is formed when nitrogen from ammonia or other sources combines with oxygen in water. Nitrate is naturally found in plants and in vegetables at varying concentrations. It is often in groundwater depending on the amount of fertilizer and manure applied to crop fields. Additional exposure to nitrate from contaminated drinking water may pose a significant health risk.

No infant or any female who is or may become pregnant should consume any water that exceeds levels greater than 10 ppm (either by drinking or by eating foods prepared with the water such as soups, juices, and coffee).

Health Risks of Consuming Water High in Nitrates

The Wisconsin Department of Health Services recommends that all people avoid long-term consumption of water that has a nitrate level greater than 10 ppm.

Nitrate can affect how our blood carries oxygen. Nitrate can turn hemoglobin (the protein in blood that carries oxygen) into methemoglobin. High levels can turn skin to a bluish or gray color and cause more serious health effects like weakness, excess heart rate, fatigue, and dizziness. **Nitrate can affect babies more seriously because their bodies interact with nitrate differently. All infants less than 6 months of age are at risk of nitrate toxicity.**

When nursing mothers ingest water containing elevated concentrations of nitrate, the amount of nitrate in breast milk may increase slightly. Although no confirmed cases of “blue baby syndrome” have been associated with nitrate in breast milk, **it may be advisable for nursing women to avoid drinking water above the standard.**

People who have heart or lung disease, certain inherited enzyme defects or cancer may be more sensitive to the toxic effects of nitrate than healthy individuals.

Some studies have also found evidence between exposure to high nitrate levels in drinking water during the first weeks of pregnancy and certain birth defects, further scientific study is needed to confirm this association.

High nitrates may increase the risk of colon cancer. Nitrate in drinking water has not been shown to increase the risk of other kinds of cancer.

High levels of nitrate in drinking water may increase the risk of thyroid disease. Nitrate can affect how the thyroid functions by blocking the uptake of iodine. The thyroid needs iodine to make hormones. Low levels of thyroid hormone levels can cause fatigue, weight gain, dry skin, hair loss, and goiters (enlarged thyroid).



Did You Know

Wells contaminated with high nitrate levels are more likely to be contaminated with agricultural pesticides. If your water is contaminated with nitrate, you may want to have the water tested for pesticides, especially if your well is near farm fields.