

Nitrate in Well Water

What is Nitrate?

Nitrate is a chemical like salt. It is often found in the environment. Nitrate found in well water is usually due to contamination by decaying plant or animal material, domestic sewage or run-off of fertilizer used on farms. Nitrate is also found in smoked foods, like bacon. Bacteria in the stomach can change the **nitrate** into **nitrite**.

What can Nitrite do to me?

In babies, especially those under 6 months, more **nitrite** is made by their stomachs. This nitrite combines with blood so that less oxygen is available. This disease is called **methemoglobinemia**, or "blue baby". This disease is serious, because the baby's brain can be hurt by the lack of oxygen.

Older children and adults **may** be affected by high nitrate levels. A weak link with stomach cancer has been shown in some studies. This is not a definite health risk, but it is safest to limit nitrate in your food and drink.

What can I do?

1. Test your well water. (Municipal water is tested routinely.) Homeowners on a private water supply should consult with a private accredited laboratory for nitrate testing.
2. If your water has between **4 mg/l and 10 mg/l**, test your water again. You may want to restrict well water use or talk to our Public Health Inspector.
3. If your water has more than **10 mg/l** of nitrate:
 - Use water from another source, i.e. municipal, friend (if previously tested), to prepare your baby's food and formula. This is very important for babies less than 6 months of age. If you breastfeed or use ready-to-use formula you will eliminate the need for well water.
 - Do not boil your water to get rid of nitrate. Boiling does not change the chemical, and it concentrates the nitrate more.
4. If you are worried about the high level of nitrate in your well, you may want to talk to our Public Health Inspectors. We can also help by giving you more information and answering your questions.