

# Well Water & Your Baby

This fact sheet is for parents with babies and young children who use private wells as a source of drinking water. Private wells can become contaminated with bacteria, nitrates or other chemicals. The effects of drinking contaminated water can range from no reaction to intestinal illness (diarrhea) or even death. Parents should be familiar with their well water supplies. **It is the well owner's responsibility to take samples and inspect their wells to ensure that their drinking water is safe.**

## Bacteria

Bacteria in well water can make you sick, particularly babies and young children. A major cause of bacterial contamination is due to poor well maintenance. A bacterial test of your well water should be done at least three times per year (in spring, fall, and summer or winter). Even if water is safe for consumption, it must be boiled before it can be used for infants under four months of age, to make sure it is sterile. Bring water to a full rolling boil for at least one minute, let it cool then store in a sterilized, tightly closed container in the refrigerator and use within three days.

## Nitrate

Nitrate is naturally present in the environment and well water. High levels of nitrates in drinking water are often caused by groundwater contamination from manure, excessive use of fertilizer or seepage of sewage from a septic system. High levels of nitrate in a water supply could lead to a condition known as "*blue baby syndrome*" in infants under six months of age. This condition results in reduced ability of blood to carry oxygen causing the skin to turn bluish, particularly around the eyes and mouth.

If you plan on using your well water for an infant under six months of age it must be tested for nitrate. Nitrate in water is not noticed since it is colourless, odourless, and tasteless. Only water testing can determine nitrate concentration.

Well water should be tested yearly to ensure the nitrate level (as N) is not greater than the maximum acceptable concentration of 10 mg/L as indicated by Ontario Drinking Water Objectives.

If drinking water has high nitrate levels it is recommended to get an alternate water supply or treat the water for nitrate. Boiling the water will not remove nitrate but will concentrate nitrate in the water. Nitrate can only be removed by certified treatment devices, such as distillation, reverse osmosis, or ion exchange units designed for that purpose.

## Fluoride

Low levels of fluoride in drinking water help to reduce tooth decay. To prevent decay, fluoride content in water should be between 0.5 to 0.8 mg/L. High levels of fluoride can cause dental fluorosis which in its mild form occurs as white spots on teeth. In cases of moderate-to-severe dental fluorosis, pitting or mottling of teeth occurs. Well water with naturally occurring high fluoride has not been identified in Halton Region. However, parents of young children should have their well water tested to determine the fluoride level.

## Testing

The Health Department provides **free** testing for both nitrates and bacteria. Call the Halton Region Health Department to arrange an appointment for nitrate testing. Sample water bottles for bacteriological testing can be ordered from the Health Department's website: [halton.ca/watersamplebottle](http://halton.ca/watersamplebottle) or can be picked up at Halton Region's water depot locations. The complete list of water depot locations with hours of operation is available on Halton Region's website: [halton.ca/wellwaterdepots](http://halton.ca/wellwaterdepots). Fluoride testing is available through a private lab at the cost of the person requesting it.