



St. Clair County Health Department

Division of Environmental Health
3415 28th Street, Port Huron, MI 48060
(810) 987-5306
www.stclaircounty.org/offices/health

Nitrate in Drinking Water FAQ

Information for Private Water Well Owners

What is nitrate?

Nitrate (NO₃) is a form of nitrogen combined with oxygen. It can be converted in the body to nitrite (NO₂). The major adult intake of nitrate is from food rather than water, but sometimes excessive amounts of nitrate can get into drinking water.

How does nitrate get into drinking water?

Nitrate can get into drinking water if a well is improperly constructed or located where it is subject to contamination sources. Typical sources of nitrate include septic tank and drain field effluent, crop and lawn fertilizers, waste from livestock operations, and natural geological nitrogen.

What illnesses can nitrate cause?

Large amounts of nitrate in drinking water can cause a serious illness in infants under six months of age called *Methemoglobinemia*, or Blue Baby Syndrome. *Methemoglobinemia* is a condition in which the ability of the red blood cells to carry oxygen is reduced and the acutely poisoned person will have a blue discoloration of the skin due. Also, because nitrate contamination can be related to human, animal or industrial wastes, excessive levels of nitrate in drinking water may indicate potential for the presence of other types of contaminants.

What is the procedure for testing my well water for nitrate?

The Health Department recommends a Partial Mineral test for \$34 to test your water for nitrates, which will also test for chloride, fluoride, iron and other minerals. You must come into the Health Department to purchase your water sample bottle. You must mail the bottle to the DEQ laboratory within 48 hours of taking the sample. Results are mailed to you from the DEQ usually within one week.

How often should I sample my water for nitrates?

Unlike public water supplies, private household water systems are not required by law to sample on a routine basis. The St. Clair County Health Department does recommend testing a private water supply for nitrates once a year.

For more information

St. Clair County Health Department
3415 28th Street, Port Huron

Mondays 10:00am – 6:30pm and Tuesday – Fridays 8:00am – 4:30pm
(810) 987-5306