

Water Hardness

Hardness is caused by a variety of metals and compounds such as calcium and magnesium. As water moves through soil and rock, it dissolves small amounts of minerals and keeps them in solution. The harder the water is, the more soap and detergents are required for cleaning and laundering. Hard water also contributes to scaling and mineral build up in sinks and showers.

The hardness of the water supply being delivered to your home may range from 4.9 to 9.9 grains of hardness. Often, when you purchase a new dishwasher or washing machine, the settings depend on the hardness of your water. Ideally, hard water should be softened to 4.0 to 5.0 grains of hardness. Hardness levels can be monitored by periodically submitting samples to our lab.

Environmental Health Laboratory Information

501 Ella Ave.
Joliet, IL 60433

Phone: 815-727-8517
Fax: 815-740-7633

Hours:

Monday–Thursday: 8:30 am – 4:00 pm
Fridays & the day before a holiday, samples are accepted until noon. Branch hours may differ. Please contact individual branches for hours of operation.

- Samples must be collected in sterile bottles which can be picked up at any of our locations.
- All samples **MUST** be brought in on ice in one of our sterile bottles. You may put them in a sandwich bag or container with ice cubes.
- If you have a hydrogen peroxide system or a chlorinator alert staff when picking up sterile bottles.
- Payment will be accepted in the form of cash, check or credit/debit card. (Please note there is a 3.5% service charge for credit/debit transactions with a minimum fee of \$3.50).
- All fees are paid at the time of service and are non-refundable and a \$25 service fee will be charged for all returned checks.

Testing Fees

Routine Bacterial Screen	\$20
Bacterial Screen with Count	\$25
Chlorine Check	\$5
Nitrate Analysis	\$18
Fluoride Analysis	\$24
Hardness Analysis	\$18

North Branch Office

323 Quadangle Dr.
Bolingbrook, IL 60440
Phone: 630-679-7030
Fax: 630-679-7031

East Branch Office

5601 W. Monroe -
Manhattan Rd. Ste. 109
Mokena, IL 60449
Phone: 815-727-8803
708-534-3455
Fax: 708-534-3455



Will County
Health Department &
Community Health Center

Environmental Health Laboratory

Testing Services Offered

Routine Bacterial Screen
Nitrate
Fluoride
Hardness

If you obtain drinking water from your own well, you alone are responsible for assuring that is safe. For this reason, routine testing is highly recommended.

Routine Bacterial Screen for Total Coliform & E. Coli

The Will County Health Department Laboratory can test water for the presence or absence of indicator bacteria called Coliforms.

Why should I test my water?

While most Coliforms are not pathogens, they serve as indicators of the microbial quality of the water. Coliform bacteria are normally present in the intestinal tract of humans, animals and birds. Coliforms are found in large numbers in sewage, surface water and in top soil or rock. If found in drinking water, they usually indicate that contamination of some kind is entering the supply.

If there is a pathway for contamination of the Coliforms, then actual disease-producing bacteria may enter as well. Most Coliforms are harmless and will not make people sick. However, the most common type of fecal Coliform bacteria is *E. coli*, which can be pathogenic. Its presence should be taken very seriously. Finding the source of the contamination and correcting it is crucial.

When should I test for bacteria?

One each year. It is best to do this during the spring or summer following a rainy period. In addition, this test should be conducted after repairing or replacing an old well, pump or pipes and after installing a new well or pump.

Testing for Fluoride

Fluoride exists naturally in water sources and is derived from the element fluorine. It is important in the prevention of tooth decay.

Why should I test my water?

If you use a well, fluoride levels should be checked by a laboratory. The optimal levels of fluoride in the water supply are 0.9-1.2 ppm (parts per million). Your child's doctor or dentist may want to know whether your drinking water provides adequate levels of fluoride to combat tooth decay. If it does not, the dentist may recommend purchasing bottled water.



Testing for Nitrate

Federal and state regulations require the testing of public water systems for nitrates. However, high nitrates can occur in any well.

How often should I test for them?

Testing should be done yearly, as nitrate levels can fluctuate over time.

Where do nitrates come from?

Primary sources of nitrate contamination include fertilizers, septic tank waste, livestock manure, urban drainage and erosion of natural deposits. Nitrates are found more readily in ground water than in surface water, with the most vulnerable wells being in farm communities and areas with large numbers of aging septic tanks.

Why should I test my water?

Infants under six months of age are most susceptible to adverse effects due to high nitrate concentrations, which can cause a condition known as "blue baby." The baby's skin may become bluish in color as a result of asphyxiation since the blood cannot transport oxygen. If this occurs, seek prompt medical attention.

Illinois has adopted a safe drinking water standard of 10 milligrams per liter or less of nitrate. This standard is mandatory for public water supplies and is used as a guide for private water supplies.

While nitrate consumption is rarely a problem in people older than six months of age, certain individuals may be more susceptible to health problems due to high nitrate levels. These include:

- Pregnant women or women trying to become pregnant.
- People without sufficient stomach acids to metabolize and excrete nitrate.
- People who lack the enzyme methemoglobin reductase.

Furthermore, long term exposure to high nitrate levels can lead to other health related issues.