

4. Flush standing water from pipes to reduce lead levels

Well water in Illinois rarely contains detectable levels of lead. However, lead can enter drinking water through decay of plumbing materials. Homes built before 1986 are more likely to have lead pipes, fixtures and solder. However, new homes are also at risk: even legally “lead-free” plumbing may contain up to 8 percent lead. The most common problem is with brass or chrome-plated brass faucets and fixtures. Exposure to lead at levels above health standards can impair a child’s development, as well as cause a variety of other adverse health effects in both children and adults.

To minimize your exposure to lead in drinking water, never use water from the hot water tap for drinking or cooking. Hot water is likely to contain higher levels of lead. When using the cold water tap, **RUN THE WATER UNTIL IT GETS COLD** before using it for drinking or cooking. This will flush out most of the lead that may have accumulated in the plumbing. The only way to be sure of the amount of lead in your household water is to have it tested by a certified laboratory.

5. Properly seal abandoned wells

An abandoned well can pose a health and safety hazard and become a potential route for ground-water contamination if sealed improperly or not sealed at all. Check with your local health department to find out the legal requirements and the importance of sealing abandoned wells.

Who can I contact to have my well water tested?

Coliform bacteria and nitrate should be tested on a yearly basis and can be done by most local health departments. You can find a listing of local health departments at: www.idph.state.il.us/local/. You can also check the phone book for your local health department. Certified labs also test well water and may be your only option for certain chemicals. A list of certified labs and recommendations on treating contaminated well water are available at: www.epa.state.il.us/well-water/.

For more information

For more information about water quality testing for private wells, including information about certified labs in Illinois, contact your local health department, the Illinois Department of Public Health at 217-782-5830 (e-mail: DPH.MAILUS@illinois.gov), the Illinois EPA at 217-557-6474 (e-mail: epa.safewater@illinois.gov), or go to: www.epa.state.il.us/well-water/. Your local U of I Extension Office, IL State Geological Survey and the IL State Water Survey may also be of assistance to you.



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Testing Private Well Water



*“Don’t Just Wish for Safe Water
– Test for It!”*



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What you need to know

Properly constructed and maintained water wells can provide many years of trouble free service, but wells can eventually deteriorate or become damaged allowing surface contaminants to enter the water. In addition, some groundwater can contain one or more chemical substances at levels above health based standards. In some cases, contamination of the water can be detected by sight, taste or smell; however, many of the most serious problems can only be detected through laboratory testing of the water. Public water systems are tested regularly for a variety of contaminants. However, [if you have a private well, regular testing is your responsibility](#). Well construction inspection and improvements, such as fixing a crack in a casing, are important steps in keeping your well water safe. Here are some other recommendations that you can follow:

1. Test your well water at least once a year for bacteria

Water that has become contaminated by human or animal waste can transmit a variety of infectious diseases, including dysentery, salmonellosis, hepatitis, and giardiasis. Symptoms vary, but nausea, vomiting, and diarrhea, with or without fever, are most common. To assess bacterial safety, test for a group of “indicator bacteria” called total coliform bacteria in your well water. These bacteria do not usually cause disease themselves, but their presence indicates that surface contamination has found its way into the well and disease organisms may also be present. When coliform bacteria are found in well water, the water should be boiled before being used for drinking and cooking and the well should be disinfected.

2. Test your well water every year for nitrate, and always test your water for nitrate before giving it to an infant

Nitrate is a common contaminant in Illinois groundwater. An elevated level of nitrate is often caused by septic systems, manure storage areas, feedlots or farm fields. Wells vulnerable to nitrate contamination include shallow sand point wells, large diameter dug or bored wells, and wells with damaged, leaking casing or fittings. Well water containing nitrate at levels above the maximum contaminant level should never be given to infants less than 6 months old because it can cause a potentially fatal disease called “blue baby syndrome.” In many cases, constructing a deeper well can reduce or eliminate a nitrate problem. If you know, or suspect, that your well water may contain high levels of nitrate, [DO NOT BOIL THE WATER](#), as this will only concentrate nitrate levels.

3. Testing your well water for other contaminants

VOCs

Volatile organic compounds, or “VOCs,” are common components of gasoline and other fuels, paints, and solvents, such as cleaners and degreasers. Long-term exposure to VOCs at levels greater than drinking water standards may lead to impaired immune system function, may cause liver damage, or may increase the risk of cancer. If you live in an urban or suburban area with business, industry or gas stations nearby, IEPA and IDPH recommend that you have your water tested for VOCs. Also, wells in rural areas that may be affected by leaking fuel tanks should be tested for VOCs. Ask your local health department about the frequency of testing.

PESTICIDES

Research by state and federal agencies in Illinois shows a low potential for finding pesticides above levels of concern in groundwater as a result of normal use on farm fields. However, if pesticides have been mixed, loaded or stored close to your well and you have a sand point well or a large diameter dug or bored well, you should consult with your local health department to find out if you should test for those pesticides. Long-term exposure to some pesticides at levels above health standards may cause a variety of health effects, including damage to the liver, kidneys, adrenal gland or nervous systems. You can also contact your local University of Illinois Extension office for more information on pesticide use.

RADIUM

This naturally occurring radioactive element is found primarily in the northern third of Illinois within the deep rocks, soil and groundwater. Radium has been detected in private wells and can only be identified through testing of the water. Long-term exposure to radium at levels above health standards may increase the risk of bone cancer, leukemia, aplastic anemia and lymphoma.

ARSENIC

This metal is naturally occurring and can also be found in some industrial waste material. Illinois has a band of arsenic that runs roughly from northwest to southeast and has been detected in public and private water systems at levels exceeding health based standards. Long-term exposure to arsenic at levels above health standards may increase the risk of several types of cancer.