

Quick Facts

Lead in Private Drinking Water Wells

Lead is a heavy metal known to be harmful to humans. Lead ingestion can cause serious adverse health effects to children, including learning and behavior problems and delayed growth and development, even at low levels in the body. Lead exposure in adults has been linked to increased risk of high blood pressure and kidney damage. Pregnant women exposed to high lead levels may experience miscarriage, stillbirth, premature birth, and low birth weight.

Water drawn from private water wells in Indiana, just as any water system, may contain lead if certain conditions exist. According to the Center for Disease Control and Prevention, lead rarely occurs naturally in water. When excessive lead concentrations are found in water samples, the source of contamination is usually found in the water delivery system.

The water delivery system of a private well consists of many parts: the well casing and pump, the water tap or faucet, and the piping within the home or to the well (including possibly lead solder used to connect pipes). Additionally, private wells greater than 20 years old may contain lead in the “packer” element used to seal the well above the well screen. Also, some older submersible water pumps may contain leaded brass components.

One contributing factor to the amount of lead found in drinking water is corrosion. Corrosion, or the act of a metal wearing away due to a chemical reaction, can increase the amount of lead dissolved off of piping or other components. This corrosion, depending on a number of circumstances, may significantly increase the total concentration of lead in the well water.

Circumstances such as the pH level of the water, the distance the water must travel, the total surface area of lead-containing components, and the time water is allowed to remain in the pipes without moving may contribute to increase lead levels in the water.

If lead hazards are present, flushing pipes before using water to drink or cook may be an option. The system should be flushed at the faucet before use, when contaminated water or antiquated water delivery systems are allowed to have water sit for greater than 6 hours. Flushing involves letting the water in the lines to empty out, which requires the tap to remain on for a number of minutes until fresh water from the well is running from the tap.

How can I find out whether there is lead in my drinking water?

If you suspect a problem and your drinking water comes from a private well, contact your local health department for options on having your water tested. Local health department contact information can be found at www.in.gov/isdh/24822.htm. Additionally, hardware stores may carry a water test kit for lead.

For additional water supply information, please visit www.in.gov/isdh/20408.htm. To find out more information about the effects of lead and the ISDH Lead Program, please visit www.in.gov/isdh/26550.htm.