



Pottawattamie County Office of Planning and Development

223 South 6th Street, Suite 4
Council Bluffs, Iowa 51501-4245
712-328-5792 * Office
712-328-4731 * FAX

ARSENIC IN IOWA'S DRINKING WATER

Arsenic occurs naturally

Arsenic is an element that occurs naturally in soil and bedrock formations and has been deposited in the soil and bedrock layers over millions of years. Traces of arsenic are found in groundwater, lakes, rivers and ocean water. Foods like fruits, vegetables and seafood can contain trace amounts of arsenic. Since arsenic is a natural part of our environment, everyone is exposed to small amounts. Arsenic is used by some industries, but this use does not typically affect groundwater quality. Arsenic in ground water from private wells is not regulated by any federal or state agency and there are no mandatory testing requirements.

Public Drinking Water Systems and Arsenic

Public water systems are required to perform testing on a regular basis to ensure water is safe to drink. Private individuals do not need to test for arsenic if their water is provided by a public water system. Public water suppliers must notify their customers and DNR works with the systems to identify appropriate actions when standards are exceeded. The EPA maximum contaminant level for arsenic in drinking water is 0.010 mg/L or 10 parts per billion (ppb).

Private Wells

Private wells are under the jurisdiction of the county health departments. Eight percent of 475 private wells checked throughout Iowa between 2006 and 2008 in a University of Iowa study tested higher than 10 ppb for arsenic. Health officials encourage private well owners to have their wells tested for arsenic. While treatment for private wells is not required, it is strongly encouraged that well owners consider treatment or a different source for their **drinking water** if arsenic content in their well water is above 0.010 mg/L. If arsenic levels are above 0.200 mg/L an entirely different source of water should be considered for **all water uses**.

Treatment Options For private wells, arsenic can be removed with a reverse osmosis type of water treatment system, a distiller, or a filter bed of activated alumina. Because it is not usually necessary to treat all of the water in a home, treatment needs can be met by installing a "point of use" treatment system at a convenient location at the kitchen sink, or the water tap on the refrigerator and icemaker. There are also systems that treat all the water entering the house. Information on specific water treatment products is available from the National Sanitation Foundation (NSF) web site at <http://www.nsf.org/Certified/DWTU>. Any water treatment system advertised for sale or sold in Iowa must be registered with the Iowa Department of Public Health (IDPH). Please visit the following IDPH website for more information: <http://www.idph.state.ia.us/EHS/WaterTreatmentSystems.aspx>. It is important to contact a water treatment system sales professional to discuss options that would best suit your family. They will be able to determine the best system to install for arsenic removal based on water quality and your individual water needs.

Arsenic and Your Health

People who are exposed to arsenic levels significantly above the standard over a period of years can experience a variety of health problems. Chronic health effects include an increased risk of cancer and other life-threatening diseases. The strongest evidence shows a link between arsenic and skin, bladder, and lung cancer, with bladder and lung cancer being the biggest concern. Some studies suggest arsenic may also increase the risk of prostate, kidney, and liver and other cancers, but the data is not conclusive. Other studies indicate that arsenic may have non-cancer effects including cardiovascular diseases such as high blood pressure, heart disease, and stroke; diabetes; reproductive problems; and immune and nervous system problems. If you have health concerns regarding arsenic in groundwater, please contact your doctor.

Contact Information

To request a water test or for more information, please contact our office at 712-328-5792.