

PRIVATE WELL WATER IN CONNECTICUT

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Publication #3: Arsenic in Private Well Water

Private well owners are responsible for the quality of their private well water. Homeowners with private wells are generally not required to test their water. However, testing is the best way to ensure that your water is safe. Refer to Publication #24: *Private Well Testing* for more information.



Arsenic is a metal that has no smell or taste. Arsenic is naturally present in bedrock in many places throughout Connecticut. When a private well is drilled into bedrock containing arsenic, the arsenic can leach into the well water. There are known locations across Connecticut with private wells that have high levels of arsenic. The only way to find out if your well has high arsenic is to have your private well water tested. Homeowners should consider testing their private wells at least once for arsenic. This fact sheet provides homeowners with information about the health effects from arsenic, how to test well water for arsenic and what to do if your well water has high levels of arsenic.



How Does Arsenic Get Into Private Well Water? How Can I Find Out If Arsenic Is In My Private Well Water?

Arsenic is naturally present in bedrock in areas throughout Connecticut. Depending on local conditions it can leach from soils or mineral deposits into groundwater. However, the extent to which this occurs in Connecticut bedrock wells varies across the state and therefore is uncertain at any one location. The only way to know if your well is contaminated is to test your private well water.

What Are The Potential Health Effects Of Arsenic In Private Well Water?

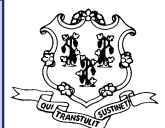
The EPA and expert scientific committees have classified arsenic as a human cancer-causing chemical. Research indicates that people living in areas where water concentrations are very high are more likely to have bladder, lung, or skin cancer. They are also more likely to have problems with their skin, and with their cardiovascular, immune and neurological systems. These toxic effects of arsenic exposure developed after many years of exposure.

How Much Arsenic Is Safe To Drink?

The State of Connecticut Department of Public Health (CT DPH) has set a health-based Action Level of 0.01 mg/L (10 ppb; 10 ug/L) for arsenic in private well water. Refer to the [Action Level List](#) for Private Wells for more information. This Action Level is the same as the U.S. Environmental Protection Agency (EPA) Maximum Contaminant Level (MCL) for public water systems.



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Where Can I Have My Well Water Tested For Arsenic?

To determine if arsenic is present in your private well water, arrange to have your well tested through a state-certified laboratory. A current list of certified labs can be obtained from your local health department, or from the [DPH Environmental Labs website](#). Follow the laboratory's instructions very carefully to avoid contamination and to obtain a good sample. Also be sure to follow any transportation and handling instructions for the samples once they've been collected. Samples should be transported to the laboratory and should not be kept longer than required and dictated by the laboratory. Be sure to discuss proper collection and handling procedures with the laboratory before sample collection.



I Just Found Out I Have High Arsenic Levels In My Water: What Should I Do?

If your well water has arsenic at a level greater than the Action Level (0.01 mg/l; 10 ug/l; 10 ppb), you should consider using an alternate source of water (i.e., bottled water, connecting to a public water system if available) or installing a point of use treatment system to purify tap water for drinking and cooking. If arsenic levels are found at or above **0.1 mg/L** (100 ug/l; 100 ppb) whole house (*point of entry*) treatment is recommended to address both water used for drinking and cooking as well as water used for bathing and showering.

How Can I Remove Arsenic From My Well Water?



Removal of arsenic from well water can be a complicated process. If your water has high arsenic, you should consult with a knowledgeable water treatment professional. There are several treatment technologies that can remove arsenic from well water. These technologies include metal oxide filters, ion exchange systems and reverse osmosis systems. However, the chemical parameters of your well water and the chemistry of the arsenic present in your water will dictate which treatment technology will most effectively remove arsenic for your situation. This is why it is important to involve a knowledgeable water treatment professional.

Depending on the level of arsenic present in your private well water, it may not be necessary to treat all of the water in your house. Treatment needs may be met by installing a Point of Use (POU) treatment system at a convenient location such as the kitchen sink, or the water tap on the refrigerator and icemaker. Verify that it is being installed and operated according to the manufacturer's instructions, and in accordance with any State and Local requirements.. Refer to [Publication #19 Questions to Ask When Purchasing Water Treatment Equipment](#) for additional information regarding treatment. You can also contact the CT DPH, Private Well Program at 860-509-7296 with questions regarding treatment options.

What Are Some Other Sources Of Arsenic?

According to research from the Food & Drug Administration the amount of inorganic arsenic in your food is generally about the same as drinking one to two liters of water containing 0.005 mg/l of arsenic. Though some types of seafood contain high amounts, the form of arsenic in seafood is not known to be toxic.

Is There A Medical Test That Will Tell Me If My Body Has Too Much Arsenic?

There are medical tests that can measure the amount of arsenic in your urine, hair, and blood. However the effectiveness and reliability of these tests varies. Consult with your physician if you have questions regarding testing for arsenic levels in your body. One of the best ways to find out if you are being exposed to excessive amounts of arsenic is to test the private well water you drink.



When and How Often Should I Test My Well for Arsenic?

You should test for arsenic when you buy a house with a well, at the time a new well is drilled or at least once for existing wells. It is possible for arsenic levels in well water to fluctuate so it is a good idea to test for arsenic every 5 years. If you have a treatment system to remove arsenic from your water, you should test the treated water annually to be sure your treatment system is working properly.

For More Information:

Treatment Questions:

CT DPH, [Private Well Program](#), 860-509-7296.

Health Questions:

CT DPH, [Environmental & Occupational Health Assessment Program](#), (860) 509-7740