

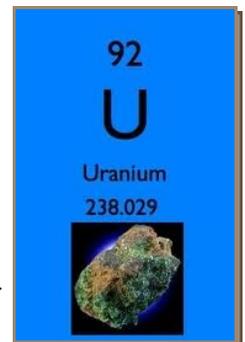
WHAT YOU NEED TO KNOW ABOUT Uranium in Private Well Water

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

Uranium is a metal that has no smell or taste. Uranium is naturally present in bedrock in many places throughout CT. When a drinking water well is drilled into bedrock containing uranium, the uranium can get into the well water. We know that there are private wells in locations across CT with high levels of uranium. Testing your well water is the only way to find out if your well has high uranium. You should test your private well at least once for uranium. This fact sheet provides homeowners with information about the health effects from uranium, how to test well water for uranium and what to do if your well water has high levels of uranium.

What is “Natural” Uranium ? Is it in my Well Water?

Uranium is an element that has been in rocks since the earth was formed. Not all rocks contain uranium, but there are many places where uranium is in the bedrock. Other elements that may be found in association with uranium include radium and radon. Natural uranium is not radioactive enough to be useful in nuclear power plants or weapons.



Uranium occurs naturally in some Connecticut bedrock ground water, therefore deeper, bedrock wells are susceptible to contamination. Wells with high levels of uranium have been found sporadically all around Connecticut. Uranium gets into well water from bedrock that contains uranium. The amount of uranium in bedrock and well water will vary greatly from place to place. The only way to know if your well is contaminated is to test.

How Can Uranium Affect My Health?

The chemical properties of uranium in drinking water are of greater concern than its radioactivity. Most ingested uranium is eliminated from the body. However, a small amount is absorbed and carried through the bloodstream. Studies show that drinking water with elevated levels of uranium can affect the kidneys over time. Bathing and showering with water that contains uranium is not a health concern unless uranium levels are extremely high.

How Can I Ensure That My Well Water Is Safe For Drinking?

Uranium testing should be your first step. Based on the results, your decision will be to either install a treatment system, or do some additional testing for related contaminants. To find out if you have uranium in your drinking water, the Connecticut Department of Public Health (DPH) recommends that you contact a laboratory and ask for a uranium test using “ICP-MS”. This test is quicker and less expensive than other alternatives. DPH maintains a

list of [State-certified laboratories](#). Search the list for labs testing “radiochemicals” in drinking water (code R). A uranium test typically costs about \$50; however the cost for testing may vary.

If you have uranium in your well water at a concentration greater than the EPA standard of 30 micrograms per liter (ug/l), you will need to treat your water to remove the uranium. See the section below for information on treatment.

Radium is another naturally-occurring metal that can contaminate well water and is sometimes associated with uranium. Testing for radium is an option you can consider if test results indicate that you do not have a uranium problem. A radium test typically costs about \$200; however the cost for testing may vary. You do not need a radium test if you have already decided to install a uranium treatment system, provided the uranium treatment system will remove radium in addition to uranium. For more information about radium, refer to the DPH Factsheet:

[What You Need To Know About Radium in Private Well Water](#).

When Should I Test My Well For Uranium?

You should test for uranium when you buy a house with a well or at the time a new well is drilled. It is possible for uranium levels in well water to fluctuate so even if one uranium test shows no uranium problem, it is a good idea to test for uranium every 5 years. If you have a treatment system to remove uranium from your water, you should test every year to be sure your treatment system is working properly.

Water Treatment for Uranium

Point-of-use (POU) water treatment devices treat water at just one faucet. They differ from point-of-entry (POE), or whole house devices, which are installed on the water line and treat all the water that enters the home. Because uranium gets into your body primarily through ingestion (and not through the skin or through inhalation), it is not usually necessary to treat all the water in your home, but only the water you drink. However, if uranium levels in your water exceed 900 ug/l (30 times greater than the EPA standard of 30 ug/l), you should contact the Connecticut Department of Public Health or your local health department about options for a safe water supply to your home.



Reverse osmosis (RO) treatment systems are the most common type of treatment used for uranium removal and are very effective. Decisions about treatment systems depend on many factors, including other water quality constituents in your water, water usage, installation costs, and maintenance costs. You should consult a water treatment expert to help you decide what treatment system is best for your situation. Other sources of information are [NSF International](#), which certifies many water treatment devices and Publication No. 19: Questions to Ask when Purchasing Water Treatment Equipment for Your Home.

You should also think about whether the uranium treatment system you are considering will also remove radium. If you need to treat your water because of high uranium and the system you select will also remove radium, then you do not need to test your water for radium. However, if your uranium treatment system is not effective for radium, we recommend that you test your water for radium. For more information on radium, refer to the Fact Sheet: [What You Need To Know About Radium in Private Well Water](#). If you have elevated radium in addition to uranium, you will need to select a system that will effectively remove both contaminants.

For More Information

Health Questions:

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

Treatment Questions:

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

