

Arsenic in Well Water: The Problem You Can't See, Smell, or Taste

It's hard to believe that water that looks, smells, and tastes fine may not be safe to drink. But the truth is that many private wells in Maine yield water that is high in arsenic.



Arsenic is a naturally occurring chemical found in soil and rocks. Some rocks have higher levels of arsenic, and this may explain why some drilled wells have high arsenic water. And in some areas, past use of arsenic-containing pesticides on blueberry, apple and potato crops may add to the arsenic water problem.

The Harm Caused by Arsenic

People who drink water high in arsenic for many years are more likely to get cancer. Drinking water very high in arsenic can also cause stomach pain, nausea, vomiting and diarrhea, numbness or tingling in the hands and feet, as well as effects on blood and the heart.

How likely you are to get cancer or any other health effects from arsenic in water depends on three major factors:

- How much arsenic is in your water;
- How much tap water you drink;
- How long you have been drinking the water.

If you are concerned about health problems possibly due to arsenic in your well water, you should discuss them with your doctor. The Bureau of Health recommends that all household wells be tested for arsenic.



Answers to Some Commonly Asked Questions



Q. How much is too much arsenic in well water?

Answer: Test results for arsenic in water are often reported as the number of *milligrams* of arsenic in a *liter* of water (mg/L for short). A liter is about a quart. The Bureau of Health guideline for arsenic in domestic well water is 0.01 milligrams of arsenic per liter of water. The current federal government standard for regulated water supplies is 0.05 mg/L, but this will be lowered to 0.01 mg/L.

Q. I just found out I have high arsenic water. What should I do?

Answer: If your water has more than 0.01 mg/L arsenic, we recommend you begin taking steps to reduce how much of this water you drink. Switching to bottled water will greatly reduce how much arsenic gets into your body. It will also allow you to safely take your time in deciding what, if any, treatment you want to have installed to remove arsenic from your well water. Sometimes, simply switching to bottled water is all that is needed.



Q. Is there a way to remove arsenic from well water?



Answer: Yes. We advise consulting one or more water treatment companies to help in choosing an arsenic removal system. This is because the choice of a treatment system depends on what else is in your water and how much water you need to treat. While we do not recommend any specific treatment system, we do advise selection of treatment systems that have been certified for arsenic removal by NSF International (www.nsf.org). Also, be sure to test at least once a year after any system is installed to make sure it is working.

Q. Can I use my water for bathing if it has high arsenic?

Answer: Studies have shown that little arsenic gets into adults from bathing. But we do not have studies on young kids. Kids might get more arsenic in them while bathing because of their bathing habits. We have a study underway to check this. For now, if you are concerned, call us toll-free to discuss exposure from bathing.



Q. Can I use my water for cooking if it has arsenic in it?

Answer: The answer depends on how much arsenic is in your water, how much water is either absorbed or used when cooking a food, and how often you eat such foods. Pasta, rice, oatmeal and dried beans are examples of foods that absorb a lot of water when cooked. Soup and jello are examples of foods that use water by recipe. If your water has more than 0.05 mg/L arsenic, contact us for information about use in cooking.

Q. How likely is it that my well water has high arsenic?

Answer: Based on the current information we have, it looks like about 1 out of every 10 Maine homes with a private well have arsenic levels of concern. Drilled bedrock wells are more likely to have high arsenic levels than dug wells, wellpoints, or wells that are drilled into sand and gravel.

How do I get more information about arsenic in private well water?

➡ For more information on the health effects of arsenic, contact:

Andrew E. Smith, SM, ScD.
State Toxicologist
Environmental Toxicology Program
Bureau of Health
11 State House Station
Augusta, ME 04333
Toll Free: 866-292-3474
Email: andy.e.smith@state.me.us

Website:

janus.state.me.us/dhs/bohstp/index.html

➡ For more information on treatment systems for removing arsenic from well water, contact:

David Braley, Geologist
Drinking Water Program
Bureau of Health
11 State House Station
Augusta, ME 04333
Tel: (297) 287-3194
Email: david.braley@state.me.us

Website:

janus.state.me.us/dhs/eng/water/index.htm



Kevin W. Concannon, Commissioner
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HAVE YOU TESTED YOUR WELL WATER FOR ARSENIC?

Health Information for Private Well Users



Arsenic in Well Water



Maine Bureau of Health