Arsenic in NH Well Water
Your Questions and Answers

What is arsenic?
Arsenic is a chemical element present in the environment from both natural and human sources, including erosion of arsenic-containing rocks, volcanic eruptions, contamination from mining and smelting ores, and previous or current use of arsenic-containing pesticides. Arsenic is a metalloid, which is an element that shares properties of both metals and nonmetals.

How am I exposed to arsenic?
Water and food are the main sources of arsenic exposure. In New Hampshire, more than 40 percent of the population depends on private wells for their water supply. Private well owners who do not test or treat their water are much more likely to experience arsenic exposure and associated health problems. There is no safe level of arsenic exposure. Reducing your intake of arsenic from water and food lowers your health risk.

Arsenic and your health
Arsenic affects a broad range of human organs and systems. Drinking water with arsenic for many years could lead to health problems, including:

- Cancer of the bladder, lung, liver, prostate, and skin
- Cardiovascular, pulmonary, immunological, neurological, reproductive, and endocrine problems

Studies show that developing fetuses and children are particularly sensitive to arsenic. Arsenic exposure has been associated with increased infant mortality, reduced birth weight, reduced ability to fight other diseases, neurological impairments, and greater potential for cancer later in life.

This map of NH released by the U.S. Geological Survey in 2013 shows the probability of arsenic in towns at or above five parts per billion in groundwater. The darker the color, the higher the probability of arsenic in groundwater. Wells outside the dark areas may also contain arsenic.

About one in five wells contain high levels of naturally occurring arsenic.
Reduce Your Family’s Exposure

Step 1: Test Your Drinking Water
Homeowners with private wells are solely responsible for testing and treating their water. Contaminants in private wells will not be detected or treated unless the homeowner gets their well tested. Arsenic is colorless, odorless and tasteless in water, so testing is required to determine whether your drinking water contains arsenic.

The NH Department of Environmental Services (NH DES) has names of laboratories that are certified to test drinking water. The standard well water test at the NH State Lab includes a test for arsenic. The NH DES recommends that households test for bacteria every year and get a standard water test at least every 3 to 5 years. For questions, call 603-271-2513.

Step 2: Treat Your Drinking Water
If your water contains arsenic, purchase a water treatment system or find an alternative source of water. Boiling water will not remove arsenic. For more information and resources on private well testing and treatment, visit http://des.nh.gov/organization/divisions/water/dwgb/well_testing/index.htm

The Quick Facts

Arsenic is common in well water
- Arsenic is present in New Hampshire well water because of the state’s granite and other types of rock.
- Arsenic in well water can cause serious health issues over time, such as heart problems and bladder, skin, and lung cancer.
- Children are especially vulnerable to the effects of arsenic in water.
- Everyone’s wells need testing, so do not rely on the results of your neighbor’s test. Arsenic levels vary from house to house.
- Common treatment methods, such as boiling, pitcher filters, or a water softener, do not remove arsenic.
- There are many resources available to help! We suggest you start at: http://www.dartmouth.edu/~toxmetal/arsenic

Testing your water is easy
- The first step to keeping your family safe is to test your well water for arsenic and other contaminants.
- The cost to test your water ranges from about $15 for just arsenic to $85 for a standard package of tests of the most common contaminants.
- Sample collection bottles are easily available from state or private labs. Bottles can be mailed to you and samples can be mailed back. Directions will be included in your kit.
- If testing shows you have unsafe levels of arsenic, there are reliable options to address it.
- For a list of certified labs, visit: http://www2.des.nh.gov/CertifiedLabs

For more information Contact:
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How is arsenic in water regulated?
The U.S. Environmental Protection Agency standard for arsenic in public drinking water is a maximum contaminant level (MCL) of 10 parts per billion (ppb). This standard applies to public water supplies only.

Watch our ten minute movie about exposure to potentially harmful amounts of arsenic in private well water.
www.InSmallDoses.org