

- ▶ how much water you consume; and
- ▶ how many years you drink the water.

Exposures that can cause serious health problems for some people may have no effect on others. Also, two people with similar exposures may develop totally different symptoms. However, more exposure to arsenic increases the likelihood that health problems will occur. Reducing exposure reduces the risk.

EPA gives the warning that: "Some people who drink water containing arsenic in excess of the Maximum Contaminant Level (MCL) over many years could experience skin damage or problems with their circulatory system, and may have an increased risk of getting cancer."

How can I reduce my exposure to arsenic from my well?

There are several ways to reduce your exposure to arsenic in your well water. Each alternative has advantages and disadvantages to consider. If you have arsenic in your water above 500 ppb, you should talk to DHH before choosing an option.

Use Bottled Water

Drinking and cooking with bottled water can reduce your exposure immediately while you consider your options. However, it can be inconvenient and costly in the long run. You should also contact the bottled water supplier to ask about the levels of any impurities, including arsenic, that its water may contain.

Treat the Well Water

Many water filters on the market can improve the taste and remove odors from drinking water but do not remove arsenic. Some home water treatment systems that use reverse osmosis, distillation or special filtration material can reduce the amount of arsenic in the water. These systems vary in cost and the amount of water they can

supply every day. Point-of-entry equipment, commonly referred to as a whole-house system, treats all the water used in the house. Point-of-use systems treat water at a single tap, such as a kitchen sink faucet.

The quality of your water will affect how well the treatment system works and how much maintenance it will require.

DHH recommends installing equipment that has been certified by NSF International, a not-for-profit public health and safety company that tests home water treatment systems.

Call 1-800-NSF-MARK or go to their website, www.nsf.org. After installation and routine maintenance, your water should be tested to ensure that the system is removing arsenic.


Connect to a Public Water Supply or Community Well

It may be possible to connect to a public water supply or community well if one is nearby. These water systems must be maintained regularly and meet federal and state public health standards. Contact your local water utility to ask about the possibility of connecting to a public supply.

**For more information, please contact the
Louisiana Department of Health and Hospitals
Office of Public Health
Center for Environmental Health Services
225-342-7499.**

**Section of Environmental Epidemiology
and Toxicology
1-888-293-7020 (toll free) or 504-219-4586**

There are even more ways to get up-to-date health information, news and emergency updates from DHH.

 www.myhealthla.org

 www.twitter.com/La_Health_Dept

 www.facebook.com/LaHealthDept

This public document was published in-house for a total cost of \$76.00. One hundred copies of this public document were published in this first printing. This document was produced by the Department of Health and Hospitals Office of Public Health. It was printed in accordance with standards for printing by State Agencies established pursuant to R.S. 43:31.

Arsenic and Your Private Well



 **DEPARTMENT OF
HEALTH
AND HOSPITALS**
Public Health



Arsenic and Your Private Well

Arsenic is found in well water throughout Louisiana, sometimes at levels that are above the EPA standards of 10 parts per billion (ppb). Testing a water sample is the only way to know if arsenic is present.

The Louisiana Department of Health and Hospitals (DHH) recommends that water used for drinking or food preparation contain no more than 10 ppb arsenic.

How are people exposed to arsenic?

Everyone has some daily exposure to arsenic because it is a naturally occurring element found in water, soil, indoor house dust, air and food.

Arsenic in your water supply can get into your body when you drink the water or use it to cook or prepare food and beverages.

Arsenic is not absorbed very well through the skin. Exposure from skin contact alone, such as bathing or washing dishes in arsenic-contaminated water, is unlikely to cause health problems.

Arsenic gets into well water through natural erosion. As ground water flows through rocks and soil that contain arsenic, some of the arsenic dissolves into the water. Drinking water in Louisiana typically contains less than 3 parts of arsenic per billion parts of water (often abbreviated as 3 ppb). For comparison, 3 ppb is about equal to adding one teaspoon of arsenic to an acre of water that is 4 feet

deep. However, levels of arsenic above health standards (from 10 ppb to 100 ppb) have been found in some wells in Louisiana. These wells are usually associated with underground aquifers located in rock or soil, which have a naturally high content of arsenic.



Should I get my well tested for arsenic?

DHH encourages you to test your private well to evaluate the safety of your drinking water supply. Arsenic levels are higher than 10 ppb in many wells in Louisiana. The only way to know how much arsenic is in your water is to test it.

Because the amount of arsenic in well water can vary throughout the year, you should test for it in the late summer and in the early spring to see if there are seasonal differences.

Laboratories usually charge \$20 to \$35 for the test. You can find a list of labs online at: www.lab.dhh.louisiana.gov

What do my test results mean?

To lower people's risk of health problems, the federal Safe Drinking Water Act requires public drinking water systems with more than 14 service connections to have arsenic levels 10 ppb or less. There is no statewide standard for arsenic in private wells.

If your water has more than 10 ppb arsenic, you will have to balance the health risks, cost, and convenience when deciding whether to continue using your water supply for drinking or food preparation.

If your water contains more than 50 ppb arsenic, DHH recommends that you stop using it immediately for drinking and food preparation. Since arsenic does not easily pass through skin, it is OK to clean, to bathe and to wash foods with water unless it contains more than 500 ppb. If the levels in your water are greater than 500 ppb, you should call DHH Environmental Health Services at 225-342-7499 or DHH Section for Environmental Epidemiology at 1-888-293-7020 or 504-219-4586 for advice.

What health problems can be caused by arsenic?

Swallowing relatively large amounts of arsenic (in the part per million range) can cause mild

symptoms, and at even higher levels, serious illness, or in extreme cases, death. Milder effects may include swelling of the face, nausea, vomiting, stomach pain, or diarrhea. Serious effects may include coma, internal bleeding, or nerve damage causing weakness or loss of sensation in the hands, arms, feet or legs. These very high levels are not usually found in private drinking water wells in Louisiana.

Long-term exposure to smaller amounts of arsenic is more common and can increase the risk of developing cancer of the bladder, lung, skin, liver, kidney or prostate if consumed over a lifetime. Other health effects may include high blood pressure, narrowing of the blood vessels, nerve damage, anemia, diabetes, stomach upset, and skin changes.

Consult your medical provider if you think you have any health problems that may have been caused by exposure to arsenic.

Should I be concerned?

Most health problems associated with long-term arsenic exposure are the same as common illnesses that affect many people. It is often not possible to differentiate symptoms related solely to arsenic from those for common illnesses. Even with relatively high levels of arsenic in the water, these health problems usually are not caused by arsenic exposure, but are mostly due to other factors such as diet, genes, lifestyle, other chemicals, or pre-existing illness.

Still, arsenic is known to increase the risk of developing these illnesses and likely contributes to some cases. It is difficult to predict whether arsenic in drinking water will affect you, or what the effects will be. The risk that you will get sick depends on:

- ▶ your individual sensitivity to arsenic;
- ▶ the amount of arsenic in the water;