Where can I find more information about arsenic in drinking water?

A great deal of information is available on the Internet. The EPA maintains a website with information on the public drinking water rule and has links to scientific reports on the health effects of arsenic in drinking water at:

http://www.epa.gov/safewater/arsenic.html

Most homes in Anchorage with public water have water supplied by the Anchorage Water and Wastewater utility (AWWU). The levels of arsenic found in this water are generally not detectable but have been measured at up to 3 ppb. AWWU water meets all EPA drinking water standards including those for arsenic. You can find information about drinking water supplied by AWWU at 564-2700 or at their website:

www.awwu.biz/website/Water_Quality_Report/2004_report/2004_wq_report.htm

If your home is served by a small, privately-managed, community water system, you can contact the Alaska Department of Environmental Conservation at 269-7500 for information about arsenic levels.

More information about arsenic in the Municipality of Anchorage is also available from the Municipality of Anchorage Environmental Services Division. The division maintains a website containing information about arsenic:

http://www.muni.org/healthesd/arsenicindex.cfm

Additional Questions?

Please contact us at : 825 L Street, PO Box 196650 Anchorage, AK 99519 or (907) 343-4200 or wwhhs@muni.org

This publication, released by the Environmental Services Division/DHHS, was produced at a cost of $0.12 per copy by iCopy of Anchorage, Alaska for the purpose of public education regarding arsenic in private wells.

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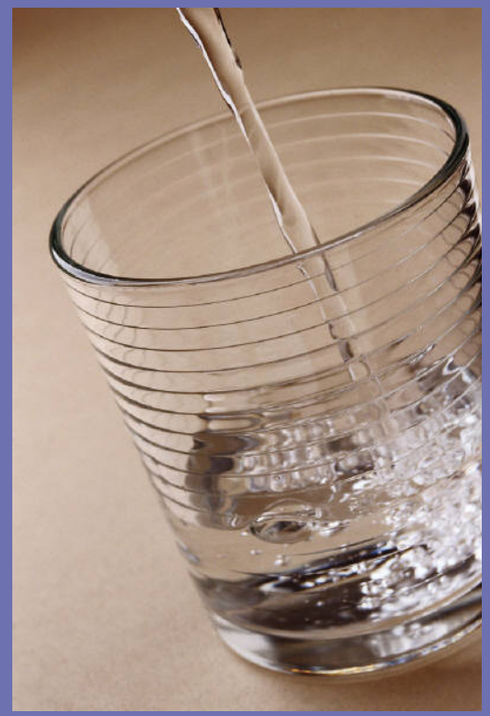
ARSENIC IN DRINKING WATER



Information for Private Well Owners in Anchorage

What is arsenic and where does it come from?

Arsenic is an element that occurs naturally in some soils and bedrock. As these arsenic-bearing minerals are weathered over time, arsenic can find its way into groundwater and surface waters. This process appears to be responsible for the elevated levels of arsenic found in the groundwater that serves some wells in Anchorage.

Elevated levels of arsenic in drinking water are fairly common throughout the U.S. The U.S. Environmental Protection Agency (EPA) estimates that 11 million Americans drink water with arsenic levels that exceed standards. Some fruits and vegetables can also absorb arsenic from the surrounding soil as they grow. Less toxic forms of organic arsenic are common in fish and other seafood. Arsenic is also used commercially in some wood preservatives and pesticides.

Why is arsenic of concern to users of private drinking water wells?

Elevated levels of arsenic have been found in some private wells in Anchorage. While the levels are not a cause for alarm, they may be a reason for concern. Studies have linked long-term exposure to high levels of arsenic in drinking water to cancer of the bladder, lungs, skin, kidney, nasal passages, liver, and prostate. Non-cancer effects of ingesting arsenic include cardiovascular, pulmonary, immunological, neurological, and endocrine (e.g., diabetes) effects.

What level of arsenic in drinking water is of concern?

The EPA has established a limit of 10 parts per billion (ppb) for public drinking water systems. While private wells are not subject to this regulation, EPA standards are based on existing health information and can therefore be used to gauge the relative quality of water from private wells.

Do I need to worry about washing or bathing in water with elevated arsenic?

No, according to the EPA, arsenic is a concern only in water used for consumption such as drinking and cooking.

Can arsenic be removed from drinking water?

A variety of effective treatment options are available to homeowners who are concerned about arsenic in their drinking water. The cost of treatment can vary considerably depending upon the method selected. Whatever treatment system is selected, we recommend that it be certified for arsenic removal by NSF International (www.nsf.org).

Point-of-use systems treat water at a specific location, most commonly at the kitchen tap, for water that will be used for cooking and drinking. Point-of-entry systems treat all water entering a home. Point-of-entry systems are usually significantly more expensive than point-of-use systems. Regardless of the system, the arsenic level in the treated water should be tested annually to ensure that arsenic continues to be removed effectively and that the filter is functioning properly.

The Municipal Department of Health and Human Services and the University of Alaska Anchorage have installed and tested a number of point-of-use systems that successfully removed 80% or more of arsenic from homes in West Anchorage.

Are there other alternatives to treatment?

Because health concerns about arsenic in water are related only to use in cooking and drinking, purchasing bottled water may be a viable alternative in households where quantities of water used for drinking and cooking are small.

Results of Anchorage Arsenic Study

Over the past three years, the Municipal Department of Health and Human Services measured arsenic levels in 434 private wells in the Municipality of Anchorage, from Eklutna to Girdwood.

- Overall, 20% of wells sampled exceeded the 10 ppb EPA standard.
- Wells in west Anchorage had the highest incidence of arsenic above 10 ppb. Approximately 30% of the wells sampled west of Lake Otis Boulevard contained elevated arsenic. In the Sand Lake area, more than 60% of the wells tested were above 10 ppb. The highest concentration found was 89 ppb.

- Elevated arsenic was rare on the Anchorage Hillside and Basher/Stuckagain Heights. Only 1% of the wells tested there were above 10 ppb.
- Fewer than 3% of wells tested in Chugiak/Eagle River exceeded 10 ppb.

How can I get the level of arsenic of my drinking water tested?

A number of commercial laboratories in Anchorage can analyze water samples for the presence of arsenic. Analysis costs can vary depending on the company and service provided but are generally less than $50. A list of laboratories certified by the State of Alaska can be found at:

http://info.dec.state.ak.us/eh/lab/certchemlabs.aspx