



ARSENIC

What is arsenic?

Arsenic is a natural element found in rock in some parts of Newfoundland and Labrador and has the symbol “As”. Arsenic can get into drinking water sources through the erosion and weathering of soils, minerals and ores that naturally contain arsenic. The amount of arsenic in water can vary over time, and has no effect on the taste or smell of water.

Elevated levels of arsenic are more likely to be found in drilled wells than in dug wells or surface water supplies. Arsenic may also enter water supplies from industrial effluents, pesticide runoff or from atmospheric deposits

What are the effects of arsenic in drinking water?

The risks are the same for everyone, including children and pregnant women. The degree and types of health effects from arsenic depend on:

- the length of time that you are exposed to arsenic from any source
- the amount of arsenic in your drinking water
- the amount of arsenic-bearing water that you drink, and your current level of health.

If you are exposed to very high amounts of arsenic over **days or weeks**, you can have other health effects including: abdominal pain, vomiting, diarrhea, cramps, weakness, numbness, burning or tingling in the hands and feet, thickening of the skin on palms or soles, and loss of movement.

If you are exposed to high amounts of arsenic over many **years**, you can have increased chances of developing certain types of cancer or other health effects, such as diarrhea, poor blood production, or abnormal heart beat.

What is the guideline for arsenic ?


The province sets standards for safe drinking water based on Health Canada’s Guidelines for Canadian Drinking Water Quality.

The maximum acceptable concentration of arsenic in drinking water is 0.010 milligrams per litre (mg/L).

If you believe that you have been exposed to a high level of arsenic over a long time, you may wish to visit a health care provider for a medical checkup.

 <https://www.gov.nl.ca/ecc/waterres/quality/drinkingwater/>

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Treatment Methods

Arsenic cannot be removed from water by boiling, chlorination, or pitcher-style filtration units.

Reduce the arsenic in your drinking water with a treatment device that is able to reduce arsenic to levels below the standard. Look for devices that have been certified as meeting the appropriate NSF International (NSF)/American National Standards Institute (ANSI) standards for removing arsenic. Be sure to follow the instructions for use and care.

Effective treatment methods include adsorption, anion exchange, distillation and reverse osmosis. A treatment system that has been certified to meet the current NSF standards for arsenic reduction should be purchased and installed.

Removing arsenic from drinking water

If your source of drinking water is high in arsenic, you may want to consider these options:

Change your source of drinking water. This would include water used for drinking, cooking, making formula, and making ice for drinks.

Other sources of water might include: an arsenic-free public supply, water from an approved and tested well, or commercially produced bottled water.

Bottle re-filling stations may not meet acceptable water quality guidelines.

Where can I find out more?

To find out more, please visit Environment and Climate Change's website at: www.gov.nl.ca/ecc/water.

You can also contact an Environmental Health Officer or Program Manager at the nearest Government Service Centre, your Regional Health Authority, or a water resources official with ECC.

Is my town water high in arsenic?

The Department of Environment and Climate Change (ECC) does tests for arsenic and other chemicals in every town water supply a minimum of twice per year. Government officials inform community leaders and residents about the safety and quality of the water.

To find out if your drinking water is high in arsenic, contact your local town council or local service district committee member and ask to see the latest drinking water quality report provided by ECC.

Water quality reports and additional information can be found on ECC's Water Resources Portal website: <https://maps.gov.nl.ca/water/>

