



Interior Health

Information for Lillooet Residents Concerning Arsenic in Drinking Water

1. What is arsenic?

Arsenic is a naturally occurring element found in the earth's crust.

2. How can it get into my drinking water?

Arsenic can get into your drinking water when ground water dissolves minerals that contain arsenic. Concentrations are higher in groundwater than in surface water (creeks, rivers, lakes). The wells Lillooet is currently using have increased levels of arsenic; the creeks do not.

3. How does arsenic get into my body?

Arsenic can enter the body through the food we eat and the water we drink. Arsenic does not enter the body through the skin during bathing or showering.

4. What is the Canadian Drinking Water Guideline limit (maximum acceptable concentration)?

The limits were lowered from 0.025 milligrams/L to 0.010 milligrams/L. This level was chosen as a compromise between minimizing health effects and the difficulty and cost of removing arsenic from drinking water.

5. What are the arsenic levels in the Lillooet wells?

Measurements taken directly from the wells in 2006 & 2007 show levels between 0.0108 milligrams/L – 0.0256 milligrams/L and results from well and surface water blended had two results of 0.0058 milligrams/L in 2007. Arsenic levels have varied over time but in general, have decreased with increased use of the wells.

6. What are the health impacts of arsenic?

a) Short Term: at levels higher than 1.2 milligrams/L these include abdominal pain, diarrhea, vomiting, muscle and limb pain, weakness and flushing of the skin.

b) Long Term: skin conditions and cancer of the skin, bladder, lung and kidney. The lifetime risk of drinking 1.5 litres per day of water containing 0.010 milligrams/L for 70 years is .03% additional cases of cancer for every 100,000 people exposed.

7. During the time it takes to reduce the concentration of arsenic in Lillooet well water, should people drink the water?

Interior Health believes that the risk of drinking the well water is low and does not advise any change to regular consumption. This is because the levels are well below those causing short term effects and because the risk with low levels is based on exposure of many years.

8. What if I want to avoid the low risk associated with drinking Lillooet well water during the time it takes to reduce the arsenic concentration to below the Canadian Drinking Water Guideline?

There are several treatment devices and options including reverse osmosis filters and distillation. Chlorination and mechanical filters do not remove arsenic from water. Boiling water may increase the concentration of arsenic.

There is no regulatory control over treatment devices for private homes, therefore the owner must be careful and select the appropriate treatment device.

When purchasing a treatment device, you should consider one that has been certified by an organization accredited by the Standards Council of Canada (SCC). The treatment device should meet the following standards:

NSF/ANSI Standard 62 on drinking water distillation systems; or

Standard 58 on reverse osmosis drinking water treatment systems; or

Standards 53 on drinking water treatment units – with specific designation for the water quality parameters you are trying to remove (arsenic).

Certification assures that a device works as the manufacturer or distributor claims. Find an up-to-date list of accredited organizations by visiting the Standards Council of Canada website at [.scc.ca](http://scc.ca).

9. What if I have more questions?

Contact your local Interior Health Drinking Water Officer.....

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Adapted from:

Arsenic in Drinking Water, Yukon Health and Social Services

Arsenic in Drinking Water, BC Health Files