

CHLORINE IN DRINKING WATER IN FIRST NATIONS COMMUNITIES



The benefits of chlorine

Drinking water chlorination is one of the most important public health achievements of the 20th century. It has lowered outbreaks of waterborne illnesses. Properly disinfecting drinking water with chlorine helps protect First Nations communities from these preventable diseases.

Why is it important to disinfect water with chlorine?

Chlorine is an effective tool to help kill unwanted bacteria that are present, which reduces the risk of waterborne illness.

What is the disinfection process?

Generally a 2-step process is used to disinfect drinking water.



Primary disinfection is the first step. It takes place inside the water treatment plant. Chlorine is added to kill unwanted bacteria that are present in the source water. This could be water from a lake or river, for example.



Secondary disinfection is the next step. It happens within the system that distributes drinking water through the community. Chlorine is added again to the water to ensure that unwanted bacteria cannot regrow in the water distribution system. Even though disinfection has already taken place at the water treatment plant, this step is very important.

At times, distribution systems may experience issues that can lead to water quality problems. For example, contamination can occur if the distribution system is not cleaned often enough, or clean water can become re-contaminated if the system breaks down. Regular proper maintenance of the water system is important in ensuring clean and safe drinking water for First Nations communities.



Should I be worried about the use of chlorine in drinking water?

The taste and smell of chlorine may be unpleasant to some people, but **there are no risks associated with the taste and smell of chlorine in drinking water.**

Chlorine is the most commonly used drinking water disinfectant and it has been used to make water suitable for drinking for more than 100 years.



Sometimes **disinfection by-products** form when chlorine in water combines with organic matter like leaves or vegetation. Disinfection by-products can be reduced by removing organic matter from the water source before adding chlorine. You would have to be exposed to high levels of disinfection by-products over many years for your health to potentially be at risk.

Overall, the risks of not disinfecting drinking water with chlorine are much greater than the potential health risks of being exposed to higher levels of disinfection by-products.

Using carbon filters

If you choose to buy a home carbon filter to use under your sink, in a water pitcher or at the point at which your drinking water enters your home, look for one that is labeled “NSF/ANSI 42”. It is important to replace the filter as often as the manufacturer recommends. If this is not done, the filter will become less effective.



For more information about chlorine in drinking water, please contact your Environmental Public Health Officer.

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