



WATER TALK

Water Talk: Chloramines in drinking water

Health Canada has developed a guideline value for chloramines in drinking water to protect the health of Canadians. Learn about what it means to have chloramines in your drinking water.

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Chloramines in drinking water

Chloramines do not naturally occur in the environment. They are disinfectants that help keep drinking water safe and clean over long distances in the pipes that distribute drinking water to Canadian homes. At a water treatment plant, trained operators intentionally form chloramines by mixing chlorine and ammonia under specific conditions. This is a complicated disinfection process known as chloramination.

If you are a private well owner, you do not need to add chloramines to your well water since disinfection of well water, if required, is generally done at the tap using other methods. For more information on how to disinfect your well, see the [Be Well Aware – Protect and clean your well](#) page.

Health effects of chloramines in drinking water

Chloramines have no known health effects at the levels added to drinking water. During chloramination, unintended chemical reactions can occur with plant and animal matter (e.g., decaying leaves, urine and feces) that are naturally found in the water to create new compounds called disinfection by-products. The health risks associated with any disinfection by-products are much less than the risks from consuming water that has not been adequately disinfected.

Dialysis providers and users

Chloraminated water must not be used for dialysis as it may have serious health effects on patients. Municipalities that are changing their water disinfection method to chloramination should notify dialysis treatment providers at all levels—large facilities such as hospitals, small community facilities, mobile units, providers for independent or home dialysis—that water will be chloraminated.

Contact your local water utility to find out if your drinking water is chloraminated.

Aquarium Owners

Although chloramines are not harmful to humans they could be harmful to fish and other aquatic life. Aquarium owners need to use proper aeration or chlorine/chloramine quenching if their water utility uses chloramination to treat its drinking water.

Contact your local water utility to find out if your drinking water is chloraminated.

Taste and odour related to chloramines

Chloramines can give a taste and/or odour to treated water, but it is less noticeable than chlorine. Taste and odour are aesthetic issues that are not a health-related concerns. If you have concerns about taste and odour issues, contact your local water utility. Tracking consumer complaints helps your utility verify water quality and acceptability.

Guideline for chloramines in drinking water in Canada

Health Canada, in collaboration with provinces, territories and other federal departments, has determined that a guideline value for chloramines in drinking water is not necessary because scientific studies do not show any health effects.

Instead, the guideline helps public drinking water authorities or providers to understand the various factors involved in chloramination and how to manage and maintain adequate disinfection of the water supply during distribution to better protect public health.

Removing chloramines from drinking water

Removing chloramines is not recommended as it may reduce the quality of your drinking water.

Values in other countries

Health Canada's guideline emphasizes that levels of chloramines in drinking water supplies should be based on providing adequate disinfection. No health effects are seen with high levels of chloramines in drinking water. Despite this, other countries and organizations have established limits for chloramines in drinking water that are based on the absence of health effects.

- United States: maximum residual disinfectant level of 4 mg/L
- Australia: guideline value of 3 mg/L
- World Health Organization: guideline value of 3 mg/L
- European Union has not established a limit

For more information

- [*Guideline for Canadian Drinking Water Quality for Chloramines*](#)
- If you have questions about the guideline or chloramines in drinking water, you can contact us at:
 - 1-833-223-1014 (toll free)
 - hc.water-eau.sc@canada.ca