

Manganese in Drinking Water

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Manganese is an essential nutrient, and some manganese is required for proper bodily function. Most manganese intake comes from food but drinking water can also be a significant contributor in our diet. Until recently manganese was not believed to be toxic at palatable concentrations in drinking water however it has been determined that high levels of manganese in drinking water have been associated with increased health risks.

What is a Safe Level?

Health Canada has recently introduced the Maximum Acceptable Concentration (MAC) of manganese in drinking water of 0.12 mg/L. The MAC is protective of the most vulnerable population – infants and young children.

Health Canada has also lowered the Aesthetic Objective (AO) for manganese of 0.02 mg/L. Manganese in water at this concentration is not a health concern, but it may affect the colour or appearance of the water turning it brown, purple or black at concentrations less than the MAC.

What can I do?

Infants should not consume tap water or formula prepared with tap water if the manganese concentrations are greater than the MAC of 0.12 mg/L. An alternate source such as bottled water should be used. Adults who drink water with manganese levels above the MAC are at a lower risk than infants and children. Recommend water treatment to reduce levels or find other sources of drinking water over the long term. There are no known health concerns from hand washing, showering or bathing in water with high levels of manganese.

The BC Ministry of Health document titled [Manganese in Drinking Water](#) provides details on the issue and steps that can be taken to reduce manganese levels in your drinking water.

Additional Resources

[Health Canada's Water Talk - Manganese in Drinking Water](#)

[Health Canada's Manganese in Drinking Water Consultation Report](#)