



Region of Waterloo
PUBLIC HEALTH

FACT SHEET

Drinking water, sodium and your health in Waterloo Region

In general, Canadians are consuming too much salt. The following will provide information on your drinking water, sodium and the protection of your health.

What is sodium?

Sodium is an essential mineral for humans. This mineral is naturally found in groundwater and all living organisms (plants and animals). Most commonly present as sodium chloride (salt), sodium has no smell, it dissolves easily in water and may give water a “salty” taste at levels of 200 mg/L or more.

Sodium and your health

The risk of high blood pressure (hypertension) rises with high sodium intake from food and beverages, particularly among the people who are sensitive to excess sodium. With extra sodium, the amount of blood in the arteries increases, raising blood pressure and increasing the risk of heart disease and stroke. Some people requiring sodium-restricted diets must limit their total intake of sodium from food and drink to 500 – 1000 mg sodium per day and require careful planning of food choices with counseling from a Registered Dietitian.

Sodium intakes from our diets and local drinking water:

Diet

In Ontario, according to the Canadian Community Health Survey in 2004, the daily average sodium intake is 2871 mg. This amount does not include salt added while cooking and salt used at the table (which generally accounts for 11 per cent of total sodium intakes.) Seventy-seven (77) per cent of our daily sodium intake comes from processed foods. The “adequate intake” (AI) of sodium is 1,500 mg/day – a level recommended as an average daily intake for healthy people. The “tolerable upper intake level” (UL) for sodium is 2300 mg/day, a level not likely to increase health risks in otherwise healthy people (Health Canada, 2004). Over 85 per cent of men and 60 per cent of women in Canada consume more sodium than the UL.

Water

The average intake of sodium from drinking water depends on the source - whether you are drinking local water supplies or bottled water. In Waterloo Region, sodium levels in municipal drinking water range from 11-200 mg/L. Bottled water also has added sodium for taste. Checking the nutritional label will give you detailed information on the sodium content. The most common source of elevated sodium in groundwater is salt (sodium chloride) applied to de-ice public roadways. People may also choose to “soften” their water using a salt exchange process when the municipal water is very “hard” (high in minerals), as is the case in Waterloo Region. If a person consumes about 2 L water per day, the sodium intake from unsoftened drinking water

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could range from 22-400 mg per day, while 2 L softened water could supply up to 1000 mg sodium per day. The amount of water you consume should not be reduced in an attempt to lower salt intake, as water is vital to our health. Most adults and teens need to drink at least 2 L water/day, preferably as water (unsoftened) and not as pop or other sugar-sweetened beverages.

What should you do if you are on a salt-restricted diet?

In Ontario, sodium is required to be sampled in municipally treated drinking water, and all levels in excess of 20 mg/L are required to be reported to the Medical Officer of Health. The Region of Waterloo, through its monitoring program, has found sodium levels in drinking water regularly exceed 20 mg/L. When the amount of salt in drinking water exceeds this level, in combination with salt from other sources (such as food and other liquids), it could present a health concern to those on sodium-restricted diets. For this reason, the ROW Public Health periodically informs local physicians of the elevated salt concentration in our municipal drinking water, so that they may advise their patients with sodium-restricted diets accordingly. If you are on a sodium-restricted diet, please consult your physician and/or Registered Dietitian to ensure the amount of salt in the municipal drinking water is taken into consideration in your diet.

What can you do if you want to remove salt from drinking water?

Neither pitcher-type filtration units nor the boiling of water will remove sodium from the water. The plumbing system should be altered to supply unsoftened water through a separate tap. Some homeowners, especially those sensitive to salt, have chosen to use reverse osmosis or distillation devices to remove sodium and other unwanted minerals from their water supply. When purchasing a treatment device, look for one that has been certified by an organization accredited by the Standards Council of Canada (SCC). The treatment device should meet the NSF/ANSI Standard 62 on drinking water distillation systems or Standard 58 on reverse osmosis drinking water systems.

What can private well owners do to protect their water from salt?

Owners of private water wells are encouraged to regularly take water samples from their wells for testing. The Waterloo Regional Laboratory samples for sodium at a cost of \$11 with results within 10 working days. For information on how to protect your well from salt contaminated surface run-off, contact the Grand River Conservation Authority, Rural Water Quality Program 519-621-2761, Ontario Soil and Crop Improvement Association, Environmental Farm Plan 519-826-4214 or Region of Waterloo Public Health, Public Health Inspection/Public Health Nutrition 519-883-2008.

Region of Waterloo Water Wells

The Region of Waterloo routinely monitors municipal drinking water quality. If you would like specific information on water analysis results in your area and/or ongoing efforts to reduce salt in our groundwater, please contact Region of Waterloo Water Services, Water Quality Specialist, at 519-575-4757 ext. 3155.