## SODIUM IN DRINKING WATER

Sodium is a mineral commonly found in the environment. Sodium in drinking water supplies can come from natural sources, industrial/agricultural activities, road salt, water treatment chemicals, and ion-exchange water softening units. Sodium also exists in most foods, and medicine such as antacids, laxatives, aspirin, and cough medicines.

The primary role of sodium in the human body is to maintain water balance. In addition, it is important for blood pressure, nerve and muscle function, acid-base balance, and nutrient absorption. Too much sodium can lead to high blood pressure and increase the risk for heart disease and stroke.

Sodium in drinking water is not a health concern for most people but may be an issue for those on a sodiumrestricted diet such as some people with hypertension, congestive heart failure, and kidney disease. Further, it is recommended that water from a water softener not be given to infants and not be used in the preparation of infant beverages including formula and juice.

## **Average Daily Intake of Sodium**

Most people consume more sodium than they need. While the average daily intake of sodium for healthy adults ranges from 2000 to 5000 mg, the ideal daily amount of sodium for healthy adults is 1500 mg according to the <a href="Health Canada">Health Canada</a>. About 70% of sodium comes from processed, packaged, and restaurant foods. Although less than 5-10% of the daily intake of sodium comes from water, intake from this source could be significant for persons suffering from medical conditions that require sodium-restricted diet.

## The Guidelines for Canadian Drinking Water Quality and the Ontario Drinking Water Standards

The <u>Guidelines for Canadian Drinking Water Quality</u> set an aesthetic objective for sodium as 200 mg/L. Sodium concentrations above 200 mg/L may alter the taste of water.

The <u>Ontario Drinking Water Systems Regulation 170/03</u> under the <u>Safe Drinking Water Act</u> requires reporting to the local Medical Officer of Health when sodium levels in public drinking water supplies exceed 20 mg/L or more.

If the sodium concentration in your drinking water is 20 mg/L then drinking up to two litres of water per day would contribute only 40 mg of sodium to your diet. This is about 2% of a teaspoon of salt. For healthy adults, this sodium level in drinking water should not pose a risk. However, people on a sodium-restricted diet should consult their health care provider if the sodium level in their drinking water exceeds 20 mg/L.



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## **Use of Water Softeners**

Water softeners may increase the level of sodium in drinking water. Most water-softening devices use ionic exchange to replace calcium with sodium. While this reduces the hardness of your water, it can add significant amounts of sodium at your tap. If you need a water softener, consider a separate unsoftened supply for cooking and drinking purposes. It is recommended to have a separate water line for drinking which bypasses the water softener. You may also use potassium chloride softener.

To find how much sodium in your municipal drinking water, visit <u>Drinking Water Quality and Monitoring web page</u>. If you are on a well water, you can test water for sodium in a <u>licenced private lab</u>. If you have a concern about high sodium levels in your drinking water, there are filtration units and treatment processes available to remove sodium from your drinking water.

For more information on sodium in drinking water or to speak with a Public Health Inspector, please call York Region Health Connection at 1-800-361-5653.

Sodium Intake of Canadian, 2017 (Health Canada) Salty Situation (Health Canada, 2018)