

Drinking Water and Sodium

Sodium is a mineral that can be found in drinking water supplies. Sodium (Na) is one of the chemical elements found in table salts (known as sodium chloride). Naturally occurring sodium is common in the Huron and Perth County geographical area.

The human body needs sodium to maintain blood pressure, control fluid levels and for normal nerve and muscle function. Sodium occurs naturally in most foods. Natural levels vary considerably for different types of food, and food processing can significantly increase sodium levels.

Sodium drinking water is not a health concern for most people but may be an issue for someone with severe hypertension, congestive heart failure or on a sodium-restricted diet.

Measuring Sodium in Drinking Water

Ontario's *Drinking Water Systems Regulation (170/03)* under the *Safe Drinking Water Act 2002* requires operators to test for sodium every 60 months. Reporting to the local Medical Officer of Health is required when sodium levels in public drinking water supplies exceed 20 mg/L. At this point, the local Medical Officer of Health assists operators in providing information to alert the public of the sodium exceedance through fact sheets and information on their water bill. This allows people on sodium-restricted diets to discuss with their family physician how to control their sodium intake.

Aesthetic objectives (e.g., for taste or odour) are provided when they play a role in determining whether consumers will consider the water drinkable. The aesthetic objective for sodium in drinking water is 200mg/L. The taste of drinking water is generally considered offensive at sodium concentrations above the aesthetic objective.

When sodium levels in water exceed 200mg/L it is recommended that an alternative water source is used for drinking and cooking, especially for individuals with health conditions, infants and young children.

Average Daily Intake

The average daily sodium intake of adult Canadians is estimated at 2760 mg per day. Health Canada recommends adults consume 2300 mg or less. Most children and youth also consume more sodium than recommended for their age group.

The main sources of sodium come from processed and prepared foods including bakery products, processed meats, prepared meals, restaurant foods, cheese, soups, sauces, and condiments.

For example, some common everyday foods also contain sodium:

- 250ml (1 cup) 1% milk: 161mg of sodium (7% of daily allotment)
- 1 slice (35g) whole wheat bread: 184mg of sodium (8%)
- 1 plain bagel with plain cream cheese: 629mg of sodium (27%)

- 125ml (1/2 cup) All Bran cereal: 305mg of sodium (15%)
- 1 slice of pepperoni pizza: 780mg of sodium (34%)

It is also important to note that most bottled waters also contain sodium – check the Nutrition label to find out the amount.

Sodium-Restricted Diets

A small percentage of the population may have been advised to follow severely sodium-restricted diets, such as patients with heart failure, kidney failure and severe hypertension. Sodium levels in water may be something they need to consider.

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 40mg of sodium to your diet. At these levels, sodium from water is unlikely to contribute excess sodium for more individuals. Individuals on sodium-restricted diets may wish to discuss with their healthcare provider.

Drinking Water at Home

Water softeners may increase the levels of sodium in drinking water. Most water softening devices use ionic exchange to replace calcium with sodium. While this reduces the hardness in your water, it can add significant amounts of sodium to the water you drink.

It is recommended that water treated by a water softener not be given to infants or used in the preparation of infant beverages, including formula and juice. It is recommended to have a separate water line for drinking and cooking, that bypasses the water softener.

If you are concerned about your sodium intake:

- Read nutrition facts labels on packaged and processed foods, choose lower sodium products. Canned goods, frozen entrées, snack foods, fast foods, and deli meats are often higher in sodium.
- Prepare foods at home more often. Take out and restaurant foods tend to be higher in sodium.
- Use sodium-reduced, low sodium and no added salt ingredients and sauces in food preparation.
- Choose more vegetables, fruit, whole grains and meats without added seasoning, breading or high sodium sauces.
- Limit salt used in cooking, baking and at the table.
- Discuss any concerns with your healthcare provider

For more information

- Call HPPH at 1-888-221-2133 ext. 3670
- Visit www.hpph.ca