

SODIUM in DRINKING WATER

Sodium is a mineral found in most foods, soft water, some mineral waters and drugs such as antacids, laxatives, aspirin, and cough medicines. While the body needs some sodium to function, too much may lead to high blood pressure (a major risk factor for stroke), heart disease and kidney disease. The human body needs sodium in order to maintain blood pressure, control fluid levels and for normal nerve and muscle function.

THE GUIDELINES FOR CANADIAN DRINKING WATER QUALITY AND THE ONTARIO DRINKING WATER STANDARDS

All natural waters contain some sodium. The most common sources of sodium in drinking water are from natural occurrences, road salt, water treatment chemicals and ion-exchange water softening units. The Guidelines for Canadian Drinking Water Quality and Ontario Drinking Water Standards set an aesthetic objective for sodium of 200 mg/L. Sodium concentrations above 200 mg/L, may alter the taste of water. Provincial water regulations require that the sodium concentrations in municipal drinking water be tested every five years. If the concentration exceeds 20 milligrams per litre of water (mg/L), it is to be reported to the Medical Officer of Health.

AVERAGE DAILY INTAKE OF SODIUM

Sodium is not considered to be toxic. However, 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 daily amount of sodium needed to meet the needs of most healthy adults is 1500 mg. Adverse health effects would not be expected for healthy adults if their sodium intake is below 2300 mg per day. The main source of sodium in the diet comes from processed foods such as snack foods, fast foods, processed meats, soups, crackers, and condiments. For example, a homemade lean hamburger patty has approximately 74 mg of sodium while one cup of processed tomato juice can contain 691 mg of sodium.

Sodium content of some common foods (approximate)

Food	Sodium (mg)	Food	Sodium mg
Table Salt, 1 tsp	2350	Canned beans, 1 cup	1000
Lunch meats, 1 oz	350	Cheese, processed 1 slice	250
Breakfast cereal, 1 cup	300	Bread, 1 slice	125
Crackers, 30 grams	390	Diet Soda, 12 oz	20-70

* variation among brands may be considerable; read label

Although less than 5-10% of the daily intake of sodium comes from water, the intake from this source could be significant for persons suffering from severe hypertension or congestive heart failure who may require a sodium-restricted diet. People with these conditions should consult

their physicians if the sodium level in their drinking water exceeds 20 mg/L. 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. Water softeners may increase the levels of sodium in drinking water.

SODIUM-RESTRICTED DIETS

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. For healthy adults, this sodium level in drinking water does not pose a risk. Even for individuals on very strict sodium-restricted diets of 500 mg of sodium per day, two litres of water would only account for 8% of their daily allotment of sodium.

USE OF WATER SOFTENERS

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 un-softened supply for cooking and drinking purposes. 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.

REMEMBER...

If you are on a strict sodium-restricted diet, you should consult your family physician. Your doctor may recommend that you drink sodium-free packaged or bottled water, or remove sodium from your water by using a water treatment device.

For more information on sodium in drinking water or to speak with a Public Health Inspector, call the Peterborough County-City Health Unit at 705-743-1000.