Chapter # 16
Nutrition: Sodium & Blood Pressure

Most Canadians get too much sodium in their diet

High sodium intakes are linked to high blood pressure and can lead to an increased risk for heart disease, stroke and kidney failure

Learn how your diet can help lower your blood pressure

You Will Learn:

1) The role of diet on blood pressure
2) To identify foods that are high in sodium
3) To identify hidden sources of sodium
4) If you are getting too much sodium each day
5) To identify foods that are high in potassium, magnesium and calcium
Why Reduce Salt?

Canadians eat more salt (sodium chloride) and other forms of sodium than they need. Too much sodium in your diet is linked to high blood pressure and fluid retention. High blood pressure is a risk factor for heart disease.

- Keep your sodium intake to **1500 mg or less** each day. 1500 mg sodium is found in approximately 2/3 teaspoon of table salt.

Sodium In the Diet Comes From Three Main Areas

1) Food that you eat naturally contains sodium
2) Salt added when cooking or added at the table
3) Salt that is added to foods during commercial processing

How Do Most Canadians Get Their Salt?

<table>
<thead>
<tr>
<th>Percentage</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>10%</td>
<td>from foods naturally consumed</td>
</tr>
<tr>
<td>10-25%</td>
<td>from the salt shaker</td>
</tr>
<tr>
<td>75%</td>
<td>from processed foods and meals eaten away from home</td>
</tr>
</tbody>
</table>
# Sodium Content in Selected Restaurant Foods

<table>
<thead>
<tr>
<th>Food</th>
<th>Portion</th>
<th>Sodium (mg)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pepperoni pizza slice, large</td>
<td>295 g</td>
<td>1630</td>
</tr>
<tr>
<td>Bacon &amp; 2 eggs</td>
<td>124 g</td>
<td>929</td>
</tr>
<tr>
<td>Big Mac</td>
<td>208 g</td>
<td>1020</td>
</tr>
<tr>
<td>Fries, small</td>
<td>70 g</td>
<td>190</td>
</tr>
<tr>
<td>Chicken caesar salad</td>
<td>317 g</td>
<td>1100</td>
</tr>
<tr>
<td>Oven roasted sliced turkey meat sandwich on whole wheat bread</td>
<td>236 g</td>
<td>1380</td>
</tr>
</tbody>
</table>

## Nutrition Facts

- **Serving Size**: 1 Serving (298g)
- **Servings Per Recipe**: 1

### Amount Per Serving

- **Calories**: 180
- **Calories from Fat**: 50
  - % Daily Value*: 9%
  - Saturated Fat 2.5 g: 13%
- **Cholesterol**: 10 mg: 3%
- **Sodium**: 60 mg: 3%
- **Total Carbohydrate**: 28g: 9%
  - Dietary Fiber 2g: 8%
  - Sugars 17g
- **Protein**: 4g

*Percent Daily Values are based on a 2,000 calorie diet.

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Check the Nutrition Facts on the Food Label for the Amount of Sodium in a Serving.
How Do You Lower Your Blood Pressure?

1) Limit or Do Not Eat Foods With Excess Amounts of Added Salt

Many people get too much salt, even without a salt shaker.

To get less sodium, eat:

- More fruits, grains, beans and vegetables that are not processed
- Fresh meats, fish and poultry
- Unsalted nuts and seeds

2) Eat more foods that contain potassium, magnesium and calcium

- **Potassium** is found in abundance in fruit, vegetables, fish and poultry. It is important to choose these foods without added salt
- Legumes, nuts, dark greens and whole grains are excellent sources of **magnesium**
- Dairy products, sardines, tofu, broccoli, kale and arugula are all high in **calcium**. Milk contains 300 mg of calcium per cup. Sardines contain 200 mg of calcium, but 500 mg of sodium per 4.5 oz serving. It is important to look for canned goods without salt. Choose canned fish packed in water. Broccoli and kale contain 70 and 90 mg of calcium in one cup cooked. Almonds contain 100 mg calcium per ounce

3) Cut Back On Alcohol

One - two drinks a day will not likely raise blood pressure in men. One drink a day generally will not raise blood pressure in women. More than two drinks a day can raise blood pressure in most men and women.
4) **Exercise Regularly**

Aerobic activity, like walking, is best for lowering blood pressure. Follow your exercise prescription as advised by your Cardiac Rehab team.

**Note:** These strategies are often effective; you will need to work with your doctor to lower your blood pressure medicine. This should NOT BE DONE ON YOUR OWN. If you stop your blood pressure medicine all at once, it may be dangerous. Work with your doctor so s/he can change your medicine as your blood pressure falls.

*(Adapted from 2000 Food & Health Communication, Inc. 21st Century Heart™)*

**Stopping Hypertension With Your Diet**

The DASH diet stands for “dietary approaches to stopping hypertension”. This way of eating helps to lower your blood pressure. The DASH diet is an eating plan developed after good research was done to find out how diet affects blood pressure.

It is a diet that:

- Is low in sodium
- Is rich in magnesium, potassium and calcium
- Has lots of fruits and vegetables
- Has low fat dairy products
- Includes whole grains, fish, poultry and nuts
- Has lower amounts of red meats, sweets, and sugar-containing beverages

<table>
<thead>
<tr>
<th>Food Group</th>
<th>Daily Servings</th>
</tr>
</thead>
<tbody>
<tr>
<td>Grains and grain products</td>
<td>7-8</td>
</tr>
<tr>
<td>Vegetables</td>
<td>4-5</td>
</tr>
<tr>
<td>Fruits</td>
<td>4-5</td>
</tr>
<tr>
<td>Low fat dairy</td>
<td>2-3</td>
</tr>
<tr>
<td>Meats, poultry and fish</td>
<td>2 or less</td>
</tr>
<tr>
<td>Fats and oils</td>
<td>2-3</td>
</tr>
<tr>
<td>Nuts, seeds, legumes</td>
<td>4-5 per week</td>
</tr>
</tbody>
</table>

*Source: National Heart, Lung and Blood Institute.* For more information on the DASH diet:

How to Season Your Food Without Salt

Blend these herb mixtures together and use them to season your food instead of salt.

Favourite Food Flavouring

- 4 tbsp basil
- 1 tbsp garlic powder
- 4 tsp onion powder
- 2 tsp sage
- 1 tsp ground black pepper
- 4 tbsp oregano
- 4 tsp marjoram
- 2 tsp dill
- 2 tsp rosemary

Blend all ingredients. Store in an air-tight container or fill an empty seasoning jar with holes large enough for easy shaking.

All Purpose Flavouring

- 2 tsp garlic powder
- 1 tsp basil
- 1 tsp dill
- 1 tsp oregano
- 1 tsp powdered lemon rind

Blend well and store in glass saltshaker. Add a few grains of rice to prevent caking.

Herb Mix

- 1 tsp ground cayenne
- 1 tsp garlic powder
- 1 tsp basil
- 1 tsp mace
- 1 tsp dried parsley
- 1 tsp thyme
- 1 tsp onion powder
- 1 tsp black pepper
- 1 tsp sage

Blend well. Substitute other herbs as desired.
Tips for Seasoning Without Salt

Experiment with the following spices or herbs the next time you prepare or make any of the following:

<table>
<thead>
<tr>
<th>Food</th>
<th>Spices or herbs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bread</td>
<td>caraway, marjoram, oregano, poppy seed, rosemary, thyme</td>
</tr>
<tr>
<td>Cheese</td>
<td>basil, chervil, chives, curry, dill, fennel, garlic chives, marjoram, oregano, parsley, sage, thyme</td>
</tr>
<tr>
<td>Fruit</td>
<td>anise, cinnamon, coriander, cloves, ginger, lemon verbena, mint, rose geranium, sweet cicely</td>
</tr>
<tr>
<td>Salads</td>
<td>basil, borage, burnet, chives, French tarragon, garlic chives, parsley, sorrel (These are best used fresh or added to salad dressing. Otherwise, use herb vinegars for extra flavour.)</td>
</tr>
<tr>
<td>Soups</td>
<td>bay, chervil, French tarragon, marjoram, parsley, savory, rosemary, fresh parsnip, celery stalk or celery root</td>
</tr>
<tr>
<td>Vegetables</td>
<td>basil, burnet, chervil, chives, dill, French tarragon, marjoram, mint, parsley, pepper thyme</td>
</tr>
<tr>
<td>Fish</td>
<td>chervil, dill, fennel, French tarragon, garlic, parsley, thyme</td>
</tr>
<tr>
<td>Beef</td>
<td>bay, chives, cloves, cumin, garlic, hot pepper, marjoram, rosemary</td>
</tr>
<tr>
<td>Lamb</td>
<td>garlic, marjoram, oregano, rosemary, thyme (make little slits in lamb to be roasted and inset herbs.)</td>
</tr>
<tr>
<td>Poultry</td>
<td>garlic, oregano, rosemary, savory, sage</td>
</tr>
<tr>
<td>Pork</td>
<td>coriander, cumin, garlic, ginger, hot pepper, pepper sage, savory, thyme</td>
</tr>
</tbody>
</table>

Tips for Choosing Low Sodium Foods

- Remember that unprocessed fresh foods such as fruits and vegetables contain lots of nutrients and are naturally low in sodium.
• CHOOSE products with **less than 200 mg** of sodium per serving, or **less than 10% Daily Value**. AVOID products that contain more than 400 mg of sodium per serving. LIMIT products that contain between 200-400 mg of sodium per serving.

• Pay attention to serving size. How big is the portion in comparison to how many servings you will actually eat? For example, breads and cereals are a significant source of sodium in our diets because we consume many servings a day.

• All salts (table, Kosher, rock, sea, Himalayan) contain approximately 100% sodium chloride, so they contain the same amount of sodium. **One teaspoon of salt is about 2300 mg of sodium.** The Heart & Stroke Foundation recommends 1500 mg a day for adults.

• In restaurants, ask about lower sodium options and request no salt be added if possible. Be wary of soups made with salty broths and salads with lots of toppings and dressing.

(Adapted from sodium101.ca)

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**Your Resources**

1) Eat Right Ontario: [www.ontario.ca/eatright](http://www.ontario.ca/eatright)
   a. Call 1-877-510-5102 to talk to a Registered Dietitian for free.


3) Sodium: [www.sodium101.ca](http://www.sodium101.ca)

4) Nutrition Action Health Letter: [www.cspinet.org](http://www.cspinet.org)