

Canadian Salt Regulations: Similarities and Differences from the U.S.

Presented at the Food Product Composition, Consumer Health and Public
Policy, California 2007

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Salt and Health

- There are a variety of ways in which salt plays a role in human health
 - Good preservative for food, hence widespread use in processed foods
 - Used in some countries, including Canada, as a vehicle for distributing iodine, all salts in Canada are iodized
 - High levels of salt consumption have been linked in some studies to hypertension, and risk of stroke.

Iodine Usage

Australia

Voluntary. Purchased by less than 10% of the population. Consumers prefer non-iodized Salt. Iodine absorbed primarily through dairy products. Some evidence of goiter found in Tasmania & Sydney in 2001/2002. Studies to begin in 2003.

Canada

Iodization of Table Salt was made mandatory by law in Canada in 1949. Specialty Salts are exempt, but as their sales are such a small fraction of the market, iodized Salt consumption is basically 100%. Canada has a particularly high rate (100 ppm), which is probably excessive, which makes the taste of the iodized Salt quite distinguishable. Goiter has generally been eliminated to such an extent that there are no longer any official monitoring programmes.

United Kingdom

No official programme. Consumption of iodized Salt is minimal. Consumers get iodine through dairy. General population iodine sufficiency.

United States

Voluntary. Used by 70% of households. General population iodine sufficiency.

Health Claims

- US allowed health claims related to reduced sodium since 1994.
- US claim would suggest the following:
 - **Sodium and hypertension (high blood pressure)**
 - Hypertension is a risk factor for coronary heart disease and stroke deaths. The most common source of sodium is table salt. Diets low in sodium may help lower blood pressure and related risks in many people. Guidelines recommend daily sodium intakes of not more than 2,400 mg. Typical U.S. intakes are 3,000 to 6,000 mg.
 - **Requirements:** Foods must meet criteria for "low sodium." Claims must use "sodium" and "high blood pressure" in discussing the nutrient-disease link.
 - **Sample Claim:** "Diets low in sodium may reduce the risk of high blood pressure, a disease associated with many factors."

US Recommendations on Labels

- Sodium free:*** less than 5 mg per serving
- Low sodium:*** 140 mg or less per serving and, if the serving is 30 g or less or 2 tablespoons or less, per 50 g of the food
- Very low sodium:*** 35 mg or less per serving and, if the serving is 30 g or less or 2 tablespoons or less, per 50 g of the food
- Reduced or Less sodium:*** at least 25 percent less per serving than reference food

US Recommendations on 'healthy'

- Originally proposed at two tiers with the second more restrictive tier to be implemented at various times from 1996 to 2003
- Ultimately second tier restriction was abandoned

US sodium levels required for claim of 'healthy'

<i>If the food is...</i>	<i>The sodium level must be...</i>
(A) A food with a RA that is greater than 30 g or 2 tablespoons (tbsp.)	480 mg or less sodium per RA and per LS
(B) A food with a RA that is equal to or less than 30 g or 2 tbsp.	480 mg or less sodium per 50 g
(C) A meal product as defined in § 101.13(l) or a main dish product as defined in § 101.13(m)	600 mg or less sodium per LS

Canadian Health Claim Regulations

- Health Canada reviewed scientific literature to establish a rationale for a Canadian health claim
- Concluded that reducing sodium intake in 'at risk' populations was warranted based on the literature
- Developed a 'prudent' health claim

Canadian proposed health claim

- ***Moderation in intake of sodium may reduce the risk of high blood pressure, a condition associated with many factors including overweight, excessive alcohol consumption, inadequate intake of dietary potassium and inactivity.***
- ***Attaining and maintaining a healthy body mass index reduces the risk of hypertension, a condition associated with many factors.***

Canadian allowable statement claims, 2001

Free of Sodium or Salt	Less than 5 mg per reference amount and serving of stated size
Low in Sodium or Salt	140 mg or less of sodium or salt per reference amount and serving of stated size or per 50 g if the reference amount is 30 g or less
Reduced in sodium or salt/lower in sodium or salt	Food contains at least 25% less sodium or salt per reference amount of the food or per 100 g of prepackaged meal
Lightly salted	Food contains at least 50% less added sodium or salt than the sodium or salt added to the similar reference food

Canadian Health Claim allowed, 2001

‘A healthy diet containing foods high in potassium and low in sodium may reduce the risk of high blood pressure, a risk factor for stroke and heart disease. (Naming the food) is (sodium-free, low in sodium, is a good source of potassium and is sodium-free, is high in potassium and low in sodium)’

What about Potassium?

Sodium free	Nutrition Facts label shall include the amount of potassium
Low in Sodium	Advertisement shall include the amount of sodium and potassium per serving
Good source of potassium (high in potassium) and sodium free (low in sodium)	Food must contain 350 mg or more of potassium per reference amount and per serving of stated size

Canadian requirements 2003

7.15.6 Low-Sodium Foods [FDR, B.24.008, B.24.013]

A "**low-sodium**" food is defined as a food that, when ready to serve, contains:

1. not more than 50 percent of the sodium that would normally be present in that food if it were not sodium reduced;
2. not more than 40 mg of sodium per 100 g of food, except in the case of meat, fish and poultry products, and cheddar cheese;
3. not more than 80 mg of sodium per 100 g of food, in the case of meat, fish and poultry products;
4. not more than 50 mg of sodium per 100 g of food, in the case of cheddar cheese; and
5. except in the case of salt substitutes, no added salts of sodium.

A "**low-sodium**" food must carry a declaration of the content of specific nutrients on the label, as well as the expression "**low-sodium**" on the principal display panel in close proximity to, and in the same size type as, the common name. Both the label and advertisement for a "low-sodium" food are required to carry a statement to the effect that the food is suitable or recommended for "**sodium-restricted diets**" (B.24.013).

Canadian Health Claims as compared to U.S.

United States (15)

Calcium and reduced risk of osteoporosis

Dietary saturated fat and cholesterol and risk of coronary heart disease

Sodium and hypertension

Fibre containing grain products, fruit and vegetables and cancer

Fruits, vegetables and grain products that contain fibre, particularly soluble fibre, and the risk of coronary heart disease

Fruits and vegetables and cancer

Soy protein and heart disease

Plant sterols and plant stanol esters and risk of coronary heart disease

Folate and neural tube defects

Dietary sugar alcohols and dental caries

Dietary soluble fibre, such as that found in whole oats and psyllium seed husk, and risk of coronary heart disease

Dietary fat and reduced risk of cancer

Whole grain foods and risk of heart disease and certain cancers *

Potassium and the risk of high blood pressure and stroke*

Nuts and the risk of heart disease**

Canada (5) (b)

"A healthy diet containing foods high in potassium and low in sodium may reduce the risk of high blood pressure, a risk factor for stroke and heart disease"

"A healthy diet with adequate calcium and vitamin D, and regular physical activity, help to achieve strong bones and may reduce the risk of osteoporosis"

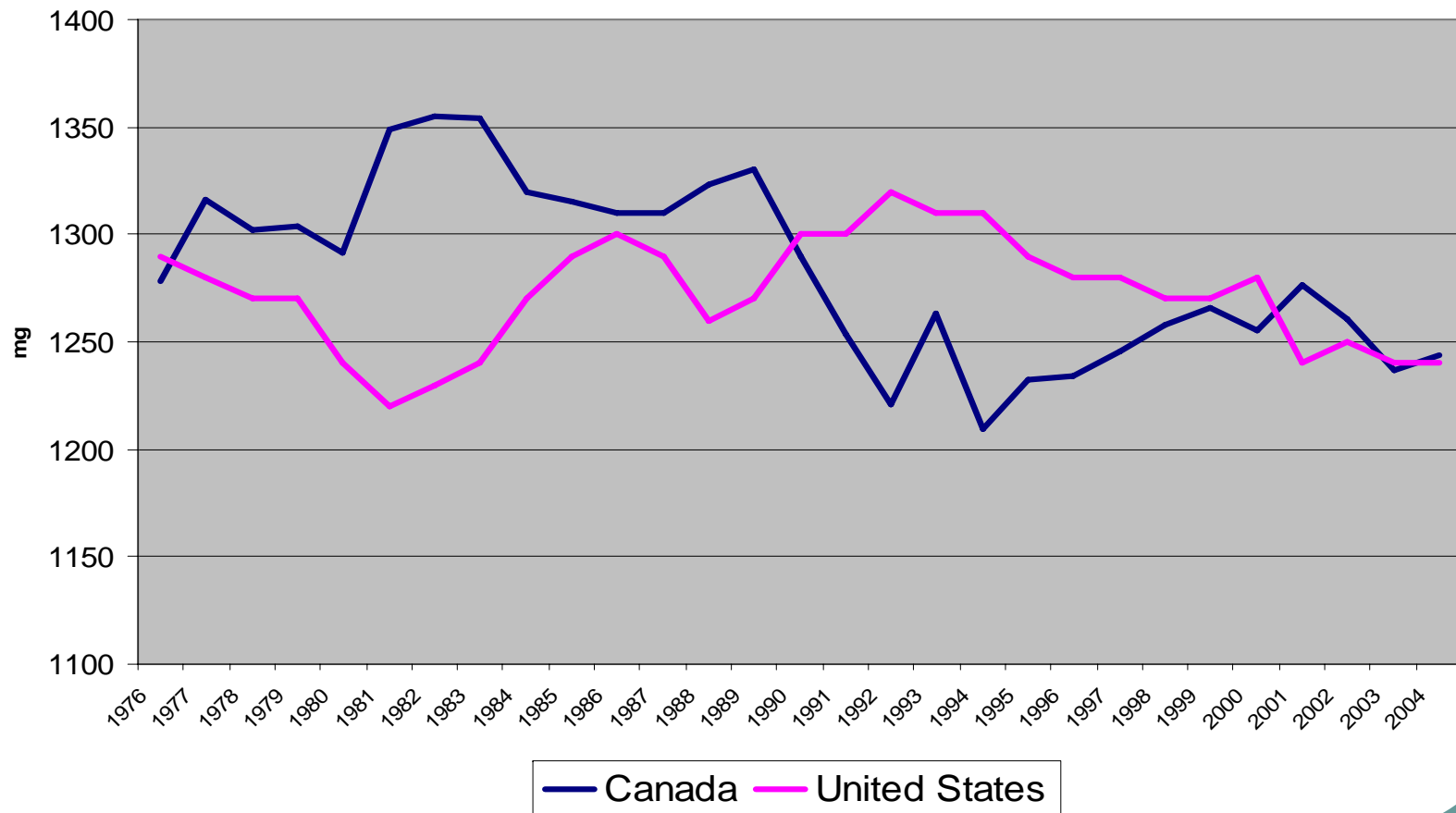
"A healthy diet low in saturated and trans fats may reduce the risk of heart disease"

"A healthy diet rich in a variety of vegetables and fruit may help reduce the risk of some types of cancer"

"Won't cause cavities" or "Does not promote tooth decay" or "Does not promote dental caries" or "Non-cariogenic" (applicable only to certain chewing gum, hard candy or breath freshening products)

Sodium Availability

Sodium Availability, Per Capita, Per Day



Canadian Data from the Recent Community Health Survey

Table 1
Percentage of people with usual sodium intake above the tolerable upper intake level (UL) UL), by age group and sex, household population aged 1 or older, Canada excluding territories, 2004

Age group	% above UL	95% confidence interval	UL
1 to 3	77.1	71.6 to 82.5	1,500
4 to 8	92.7*	88.8 to 96.5	1,900
9 to 13			
Male	96.9	94.7 to 99.1	2,200
Female	83.0†	77.8 to 88.1	2,200
14 to 18			
Male	97.1	95.4 to 98.8	2,300
Female	82.0†	76.8 to 87.2	2,300
19 to 30			
Male	98.8	96.9 to 100	2,300
Female	76.3†	66.5 to 86.2	2,300
31 to 50			
Male	91.7	87.3 to 96.1	2,300
Female	72.1†	66.3 to 78.0	2,300
51 to 70			
Male	85.7	81.5 to 89.9	2,300
Female	62.3†	56.2 to 68.4	2,300
71 or older			
Male	76.9	70.0 to 83.7	2,300
Female	45.1*†	37.6 to 52.6	2,300

* Significantly different from estimate for preceding age group of same sex ($p < 0.05$)

† Significantly different from estimate for males in same age group ($p < 0.05$)

Note: Excludes salt added at the table or while cooking.

Source: 2004 Canadian Community Health Survey - Nutrition

Where is the Salt Coming From?

The Canadian diet—10 main sources of sodium

Results from the 2004 CCHS—Nutrition indicate that the following 10 groupings of foods/beverages accounted for over half (55%) of all sodium that Canadians consumed:

	% of total sodium intake
Pizza, sandwiches, submarines, hamburgers and hotdogs	19.1
Soups	7.4
Pasta	5.7
Liquid milk and milk-based beverages	4.0
Poultry and poultry dishes	3.8
Potatoes	3.4
Cheese	3.2
Cereals	3.0
Beef	3.0
Sauces	2.9

Comparison between Canada and the US

Table 3
Average daily sodium intake (milligrams), by age group and sex,
Canada excluding territories, 2004 and United States, 2001-2002

Age group	Canada (mg)	United States (mg)
1 to 3	1,918*	2,140
4 to 8	2,677*	2,831
9 to 13		
Male	3,513	3,549
Female	2,959	2,806
14 to 18		
Male	4,130	4,086
Female	2,938	2,799
19 to 30		
Male	4,066	4,141
Female	2,793*	3,098
31 to 50		
Male	3,607*	4,252
Female	2,806	3,011
51 to 70		
Male	3,334*	3,645
Female	2,573	2,652
71 or older		
Male	2,882	3,051
Female	2,300	2,404

* Significantly different from estimate for United States ($p < 0.05$)

Note: Excludes salt added at the table or while cooking.

Sources: 2004 Canadian Community Health Survey - Nutrition; 2001-2002NHANES - What We Eat in America

Acknowledgements

- Cooperative Program in Agricultural Marketing and Business, University of Alberta
- AAFC Consumer and Market Demand Agricultural Policy Research Network