

Sodium Reduction: State and Local Action Opportunities to Reform the Norm

Overview

- Sodium reduction as a public health imperative
- Sources of sodium, and sodium intake recommendations
- Salt and high blood pressure
- Current action
- Future action
- Additional resources

Salt and Sodium—Are They the Same?

- Sodium chloride is the chemical name for salt.
- The words “salt” and “sodium” are not exactly the same.
- Ninety percent of the sodium Americans consume comes in the form of salt.
 - Other sources include food additives, such as baking soda.
 - A small amount occurs naturally in foods like meat and eggs.
- The food industry uses salt in every food category to enhance flavor, condition dough, preserve foods, and retain moisture.

Sodium Reduction: A Public Health Imperative

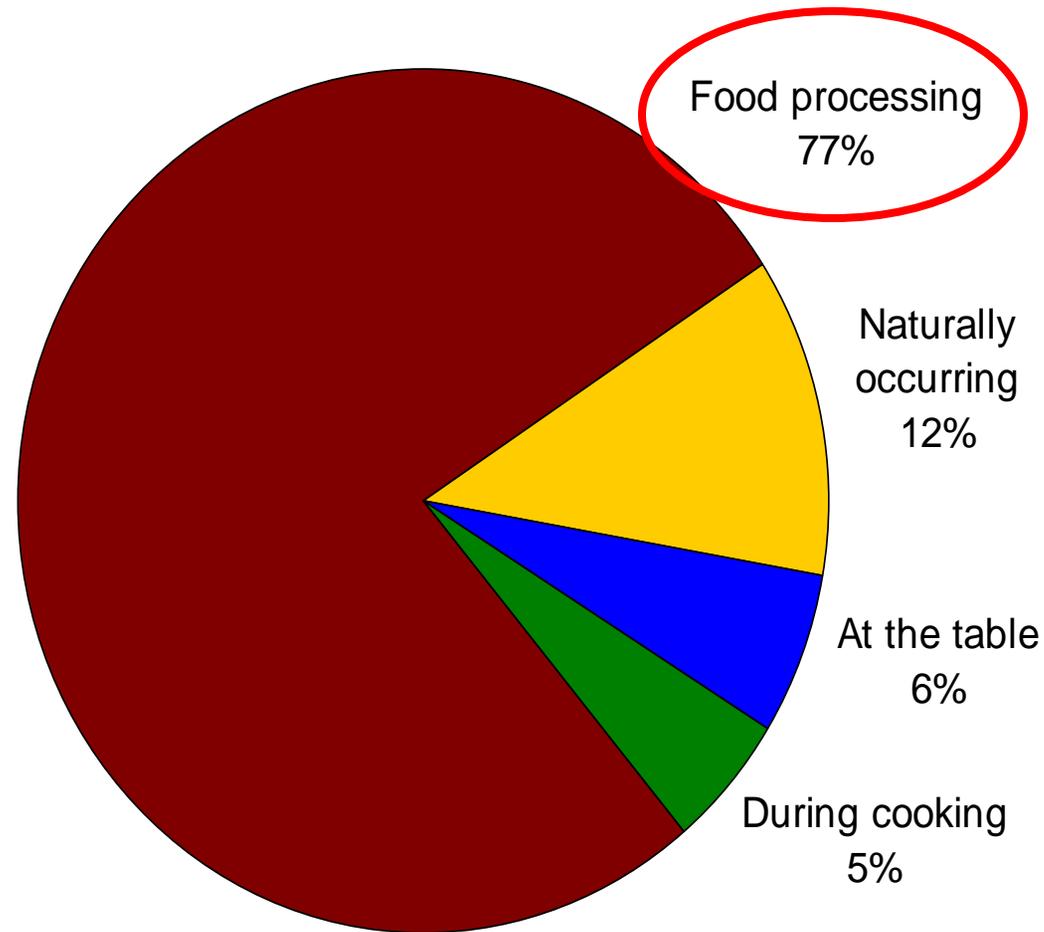
- Because most of the sodium in our food supply is invisible in processed and restaurant foods, consumers have little control over the amount of sodium in their diet.
- It can be difficult for even the most motivated consumer to reduce sodium intake.
- Excess sodium intake is a primary risk factor for high blood pressure.

Sodium Intake Recommendations

- Your body needs only a small amount of sodium each day.
- The 2005 *Dietary Guidelines for Americans* recommend less than 2,300 mg per day for the general population.
 - For specific populations—70 percent of U.S. adults—limit intake to 1,500 mg per day.
- Average daily sodium intake for U.S. adults is more than 3,400 mg per day.

IOM (Institute of Medicine). 2005. *Dietary Reference Intakes for Water, Potassium, Sodium Chloride, and Sulfate*. Washington, DC: The National Academies Press. Centers for Disease Control and Prevention. *Application of lower sodium intake recommendations to adults—United States, 1999–2006*. MMWR. 2009;58(11):281–3. U.S. Department of Agriculture. *What we eat in America*. Available from <http://www.ars.usda.gov/service/docs.htm?docid=15044>

Sources of Sodium



Mattes RD, Donnelly, D. Relative contributions of dietary-sodium sources. J Am Coll Nutr. 1991 Aug;10(4):383-93.

Sodium Reduction: A Public Health Imperative

- High blood pressure is a primary risk factor for heart disease and stroke, the first and third leading causes of death in the United States.
- Sodium reduction can have a significant impact on reducing disparities and cardiovascular disease events.
- Reducing sodium in the food supply is the best population-based strategy to reduce the prevalence of high blood pressure.

Why Action is Needed at State and Local Levels

- Strong scientific evidence supports the need for population-wide sodium reduction due to the harmful impact of sodium on blood pressure.
- Individual behavior change is difficult.
- The most effective population approach to reducing sodium intake is to reduce the sodium content of restaurant and processed foods, which contribute the vast majority of sodium in the food supply.
- All current approaches are voluntary.

Salt and High Blood Pressure

- High blood pressure (HBP) is a major public health issue and the leading risk factor for heart disease and stroke.
- Nearly one in three U.S. adults has HBP.
- Excess sodium intake is a known risk factor for HBP and, subsequently, cardiovascular events.
- HBP's enormous burden takes an economic toll.*
- Sodium reduction can have a significant impact on reducing disparities, cardiovascular events, and economic burden.

* American Heart Association. Heart Disease and Stroke Statistics – 2010 Update.
<http://circ.ahajournals.org/cgi/content/full/121/7/e46>.

Salt and High Blood Pressure

- Increased sodium in the diet → increased blood pressure → increased risk for heart attack and stroke.
 - Generally, lower consumption of salt means lower blood pressure.
 - Within weeks on average, most people experience a reduction in blood pressure when salt intake is reduced.
- Even people with blood pressure in the optimal range benefit from sodium reduction and reduced risk for heart attack and stroke.
- Reducing salt = reducing mortality.

Estimated Effects on HBP Prevalence and Related Costs from Sodium Reduction

- Reducing average population intake to 2,300 mg per day (current recommended limit) may...
 - Reduce cases of HBP by 11 million.
 - Save \$18 billion in health care spending.
 - Gain 312,000 quality-adjusted life years (QALYs).
- Even fewer cases of HBP and more dollars saved if intake was reduced to 1,500 mg per day (recommended maximum level for “specific populations”).

Global Sodium Reduction

- Not just a public health issue for the United States.
 - HBP is the primary contributor globally to heart disease and stroke.
- Reformulation of products has occurred in other countries.
 - Sodium content of identical products in other countries can be significantly lower.
- Some countries, such as the United Kingdom, Australia, and Canada, are leading the way in sodium-reduction efforts.
- Sodium reduction and tobacco control = recommendations to improve health in developing countries .

International: Product Variability

Burger King Double Whopper

	Sodium per serving	Sodium per 100 gm
Brazil	1,300 mg	349 mg
Australia	1,153 mg	321 mg
US	1,090 mg	291 mg
Germany	1,010 mg	285 mg
Canada	980 mg	263 mg
UK	875 mg	246 mg
Italy	819 mg	231 mg

Kellogg's Special K

	Sodium per serving	Sodium per 100 gm
Canada	270 mg	931 mg
Mexico	260 mg	867 mg
US	220 mg	710 mg
France	200 mg	450 mg
Italy	200 mg	450 mg
UK	100 mg	450 mg
Turkey	200 mg	400 mg

What Has Been Done to Reform the Norm Abroad?

Several countries have taken action on sodium reduction.

- **Finland:** The country's initiatives have resulted in a significant decrease in average population salt intake.
- **United Kingdom:** Average sodium intake in the population has already been reduced by 360 mg.
- **Australia:** Salt database that includes more than 7,000 items identified large variations in the salt content of similar products offered by different companies.
- **Canada:** Sodium Working Group formed in 2007 to work on a national strategy to reduce sodium consumption.

National Salt Reduction Initiative

- New York City Department of Health and Mental Hygiene has launched a nationwide effort to reduce the level of salt in processed and restaurant foods.
- The partnership includes more than 40 cities, states, and public health organizations.
- The department is working with food industry representatives on a voluntary framework to reduce the salt in their products.
- Initial sodium reduction benchmarks have been set for 61 categories of packaged foods and 25 categories of restaurant foods.

What Has Been Done to Reform the Norm in the United States?

- State and local activity:
 - Communities Putting Prevention to Work.
 - Los Angeles County.
- Baltimore City: Salt Reduction Task Force.
- Massachusetts and New York City: Procurement policies.
- Seattle/King County and others: Menu labeling.

Sodium Landscape

- IOM's "Strategies to Reduce Sodium in the United States".
 - Lay the groundwork for action.
- Food and Drug Administration to review IOM recommendations and work with other agencies and organizations.
- Enhanced surveillance of sodium in foods and foods consumed.
- Fiscal Year 2009 congressional language.

Potential State and Local Strategies

- Procurement policies (federal, state, local, organizational).
- Support voluntary reduction efforts that include benchmarks and accountability (such as NYC).
- Labeling requirements.
- Venue-based approaches.
- Consumer awareness campaigns.
- Letter-writing campaigns.

Healthier Food Environment = Healthier Population

- Changing the food environment gives consumers a broader range of healthful foods from which to choose.
- Policy and environment strategies are effective at the state and local level and help drive demand for federal action.
- One of the most promising strategies to decrease the prevalence of heart disease and stroke is to lower sodium content of processed and restaurant foods.
- Sodium reduction will benefit most Americans.

Additional Resources

- CDC's Division for Heart Disease and Stroke Prevention
Salt Web page
<http://www.cdc.gov/salt>
- Institute of Medicine, *Strategies to Reduce Sodium in the United States*
<http://www.iom.edu/sodiumstrategies>

Additional Resources

- NYC's National Salt Reduction Initiative

<http://www.nyc.gov/html/doh/html/cardio/cardio-salt-initiative.shtml>

- Baltimore City's Salt Reduction Task Force Recommendations

http://www.baltimorehealth.org/info/2009_09_30_SaltTaskForceReport.pdf

- Seattle/King County's Nutrition Labeling

[http://www.kingcounty.gov/healthservices/health/nutrition/healthyeating/
menu.aspx](http://www.kingcounty.gov/healthservices/health/nutrition/healthyeating/menu.aspx)