

# FACTS

## Salt of the Earth

### Reducing Sodium in the U.S. Diet

#### OVERVIEW

Cardiovascular disease is the leading cause of death and disability worldwide and high blood pressure is one of its major risk factors.<sup>1</sup> An estimated nine in ten Americans will develop high blood pressure during their lifetimes.<sup>2</sup> A high amount of sodium in the diet has been linked to high blood pressure and may also have other harmful effects on health including increased risk for stroke, heart failure, osteoporosis, stomach cancer and kidney disease.<sup>1</sup> The American Heart Association (AHA) advocates for a stepwise reduction in sodium consumption in the U.S. diet to 1500 mg/day by 2020. The AHA further recommends a concurrent sustained commitment by the food industry to maximize the use of technology and reduce the amount of salt added to the food supply over the same time period. Several countries have already successfully reduced salt intake in their populations including Japan, Finland, and more recently the United Kingdom.<sup>1</sup>

#### AMOUNT OF SODIUM IN THE U.S. DIET

Multiple scientific studies have demonstrated improved health through lower sodium consumption.<sup>3</sup> Yet Americans consumed an average of 3,330 mg of sodium daily in 2007-08.<sup>4</sup> Over 75 percent of sodium in the diet comes from salt added to processed foods, beverages and restaurant foods.<sup>5</sup> Even fresh meats, especially pork and poultry, are being injected with sodium to add weight and moisture.<sup>6</sup> The high amount of sodium in the U.S. food supply makes it difficult for Americans to meet the recommended level of intake without preparing foods from scratch and carefully reading food labels.

High sodium in the diet is also linked to calories consumed, so eating less food is another way to lower daily intake of sodium. Diets rich in fruits and vegetables provide potassium which blunts the effect of high sodium intake and lowers blood pressure.<sup>7</sup> Unfortunately, and for a variety of reasons, including cost and availability, not enough of the U.S. population is eating an adequate amount of these healthy foods. For example, less than three percent of our youth get the recommended levels of fruits and vegetables.<sup>7</sup>

#### THE POPULATION AT RISK

The 2010 U.S. Dietary Guidelines for Americans recommend that adults in the United States should consume no more than 2,300 mg of sodium, but specific populations (all persons with hypertension, African-Americans, and adults 40 and older) should aim for 1500 mg.<sup>8</sup> These latter groups now comprise a majority of adults, perhaps as high as 70%.<sup>9</sup> Even more troubling, 97 percent of children and adolescents are eating too much salt putting them at greater risk of cardiovascular disease as they age.<sup>7</sup> As rates of obesity and high blood pressure continue to climb in young people, physicians are prescribing more medications to treat hypertension in children.<sup>10</sup> For these reasons, and because approximately 90% of US adults will develop hypertension over their lifetime, the maximum intake for the U.S. population should be 1500 mg/d, as recommended by the scientific advisory panel of the 2010 Dietary Guidelines.<sup>11</sup>

#### Primary Sources of Sodium in the Average U.S. Diet



- 5% added while cooking
- 6% added while eating
- 12% from natural sources
- 77% from processed and prepared foods

Available at: <http://www.mayoclinic.com/health/sodium/NU00284>

#### ECONOMIC AND HEALTH BENEFITS

The many benefits of lowering sodium intake underscore the need for a comprehensive, coordinated public health strategy to lower the amount of salt in the food supply to 1500 mg/day by 2020. It is estimated that if the U.S. population moved to an average intake of 1500 mg of sodium/day there would be a 25.6 percent overall decrease in high blood pressure and \$26.2 billion in health care savings.<sup>12</sup> A national effort that reduces sodium intake by 1200 mg/d should result in 60,000 to 120,000 fewer CHD events, 32,000 to 66,000 fewer

strokes, 54,000 to 99,000 fewer heart attacks, and 44,000 to 92,000 fewer deaths, and save 194,000 to 392,000 quality-adjusted life-years and \$10 to \$24 billion in healthcare costs annually.<sup>13</sup>

There is little scientific evidence for any adverse effects of low salt intake in healthy people.<sup>7</sup> The few individuals who need more sodium such as those exercising or working in excessive heat over long periods of time can easily compensate by adding salt to their food.<sup>14</sup>

**Mean Intake of Sodium Among US Population by Age NHANES 2005–06**

	Total	Age Group (years)							
		2-3	4-8	9-13	14-18	19-30	31-50	51-70	71+
Mean Intake of Sodium (mg)	3436	2144	2694	3227	3793	3814	3781	3306	2686

Available at <http://riskfactor.cancer.gov/diet/foodsources/sodium>

## THE AHA ADVOCATES

The vast majority of people in the U.S. would realize significant health benefits from an overall reduction in sodium in the food supply and their diet. Therefore, the American Heart Association is committed to collaborating with its national and state partners to implement a successful sodium reduction strategy that aligns with the recent recommendations developed by the Institute of Medicine.<sup>15</sup> The AHA will:

- Collaborate with the FDA, USDA, Centers for Disease Control, the National Forum for Heart Disease and Stroke Prevention, NYC Dept. of Health and other organizations to lower sodium levels in the food supply, address food labeling, develop consumer education campaigns and promote a progressive sodium reduction strategy to lower the daily consumption to 1500 mg by 2020. The AHA is a member of the National Sodium Reduction Initiative.
- Require that sodium and other nutrition information be available in all restaurants at point of purchase and educate consumers about the value of that information to their health.
- Advocate at the state and federal level for nutrition standards that reduce sodium in school foods, and also in foods and beverages marketed to children.
- Monitor industry's efforts to maximize technologies that remove sodium from the food supply and create economic incentives for manufacturers and retailers to develop sodium reduction plans.
- Continue to develop robust surveillance at the state and national level for sodium consumption in the U.S. population.

- Promote robust standards for foods purchased and provided by local, state, and federal government agencies, schools, recipients of government funds (private contractors, grantees), employers, and food retailers. The AHA's model procurement standards may be found at: [http://www.heart.org/idc/groups/heart-public/@wcm/@adv/documents/downloadable/ucm\\_320781.pdf](http://www.heart.org/idc/groups/heart-public/@wcm/@adv/documents/downloadable/ucm_320781.pdf)
- Create incentives for health insurers and providers to offer sodium-related consultation/education to patients with high blood pressure or who are at risk for high blood pressure.
- Work with state departments of health through the State Heart Disease and Stroke Prevention Program to develop statewide stakeholder groups, identify state-based surveillance opportunities, include sodium objectives in state heart disease and stroke prevention plans and develop a policy agenda for sodium initiatives.

### References

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<sup>6</sup> USDA. Agricultural Research Service. Nutrient Comparison between enhanced and natural fresh pork. 2007. Available at: <http://www.ars.usda.gov/SP2UserFiles/Place/12354500/Articles/EB07.EnhancedPorTK.pdf>.

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<sup>11</sup> Dietary Guidelines Advisory Committee. *2010 Report of the Dietary Guidelines Advisory Committee on the Dietary Guidelines for Americans*. Washington, DC: US Department of Agriculture, Agricultural Research Service; 2010.

<sup>12</sup> Potential health benefits and medical cost savings from calorie, sodium, and saturated fat reductions in the American diet. *American Journal of Health Promotion*. July/Aug 2009 (23)16: 412.

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