



## Reducing Sodium in the U.S. Diet

### OVERVIEW

Globally, nearly two million deaths each year can be attributed to consuming too much sodium.<sup>1</sup> High sodium intake is associated with high blood pressure.<sup>2</sup> Nearly half (46.7%) of adults living in the U.S. have high blood pressure, and only about one-fifth (20.7%) have their high blood pressure under control.<sup>3,4</sup> Alarming, many youth are also being diagnosed with high blood pressure.<sup>5</sup> This common condition increases the risk for heart disease and stroke, two leading causes of death in the U.S.<sup>4</sup>

In the U.S., it is estimated that 66,508 deaths, 9.5 percent of all cardiometabolic deaths, were attributed to high sodium diets.<sup>6</sup> Researchers estimate that reducing the average sodium intake among adults living in the U.S. to 2,300 mg/day over ten years would prevent 895,200 cardiovascular disease (CVD) events and 252,500 CVD-related deaths.<sup>7</sup>

The American Heart Association advocates for a multifaceted, stepwise reduction in sodium consumption in the diet. The Association further recommends a simultaneous sustained commitment by the food and restaurant industries to reduce the amount of sodium added to the food supply.

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



*Adapted from Harnack et al, 2017*

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

Approximately 90 percent of people living in the U.S. consume too much sodium. On average Americans consume 3,400 mg of sodium per day.<sup>8</sup> Only a small amount of total sodium intake comes from sodium naturally occurring in foods (14 percent), from salt added in home cooking (6 percent), or at the table (5 percent). More than 70 percent of the sodium Americans consume comes from processed, prepackaged, and restaurant foods.<sup>9</sup> Pizza; breads, rolls and buns; cold cuts and cured meats; soups; burritos and tacos; savory snacks; poultry; cheese; and mixed dishes are the top food sources of sodium – accounting for more than half of the sodium consumed in the U.S.<sup>10</sup> These foods are often commercially processed or prepared. Restaurant foods account for 26% and 31% of the average daily sodium intake for children and adults, respectively.<sup>11</sup>

The American Heart Association recommends that the maximum intake for the U.S. population should be 1,500 mg per day for optimal cardiovascular health. The Association also recommends that sodium reduction be considered in the context of an overall heart-healthy diet, including eating a wide variety of fruits and vegetables, which provide potassium. Diets rich in potassium can blunt the effects of high sodium intake and lower blood pressure.<sup>12</sup> Consistent with these benefits, potassium-rich diets are associated with lower risk of cardiovascular disease, especially stroke.<sup>13</sup> However, fewer than 2 percent of adults living in the U.S. consume enough potassium.<sup>14</sup> Given the high intake of sodium and low intake of potassium in the U.S., it is important to both pursue reducing sodium consumption and increasing potassium consumption. While there are some concerns that consuming excess potassium may be harmful for patients with kidney disease,<sup>15</sup> it is helpful that potassium is now on food nutrition labels for those who need to track their intake. Nonetheless, increasing potassium consumption on its own is not a feasible solution to the high levels of sodium consumption in the U.S.

### THE POPULATION AT RISK

The 2020-2025 Dietary Guidelines for Americans recommend that adults in the U.S. consume no more than 2,300 mg of sodium daily, and specific populations with prehypertension or hypertension should aim to reduce their intake even further.<sup>16,17</sup> A recent study found that even among adults with diagnosed hypertension, who reported higher rates of reducing sodium, intake was still above recommended levels. Black adults reported the highest rates of reducing sodium and receiving physician sodium reduction advice, and Asian American adults were the most likely to frequently use salt during food preparation, but the least likely to use salt at the table.<sup>18</sup> In 2022, the prevalence of hypertension in U.S. adults was highest in Mississippi (40.2%) and lowest in Colorado (24.6%).<sup>19</sup> Approximately 61 percent of U.S. adults are projected to have hypertension by 2050.<sup>20</sup> Reducing sodium consumption to the Dietary Guidelines for Americans recommendation of 2,300 mg per day would be great progress in improving the health of all people living in the U.S.

### ECONOMIC AND HEALTH BENEFITS

A government-supported national policy to reduce sodium by 10 percent over ten years would be cost-effective in most countries across the world, including the U.S.<sup>21</sup> This cost-effectiveness is seen even without accounting for healthcare savings that come from preventing heart

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attacks and stroke. The many benefits of lowering sodium intake underscore the need for a comprehensive, coordinated public health strategy to lower the amount of sodium in the average person's diet.

In 2021, the U.S. Food and Drug Administration (FDA) set short-term, voluntary sodium reduction targets for processed, packaged, and restaurant foods, intending to reduce average sodium intake to 3,000 mg per day over two-and-a-half years. In 2024, the FDA released a new set of draft sodium targets designed to reduce average sodium intake to 2,750 mg per day, but those targets have not yet been finalized. A modeling study estimates that if the targets reduced consumption to less than 2,300 mg/day, it could prevent approximately 450,000 cases of cardiovascular disease, gain approximately 2.1 million discounted quality-adjusted life years, and produce discounted cost-savings (health savings minus policy costs) of approximately \$41 billion.<sup>22</sup>

In the United Kingdom, voluntary sodium guidelines for packaged and restaurant foods led to considerable reductions of sodium in the food supply—and a concurrent 15 percent reduction in sodium intake in a sample of the population as well as reduction in blood pressure, heart attacks, and strokes.<sup>23</sup>

## THE AMERICAN HEART ASSOCIATION ADVOCATES

The majority of people in the U.S. would experience health benefits from an overall reduction in sodium.<sup>10</sup> Therefore, the association is committed to collaborating with its national and state partners to implement a successful sodium reduction strategy. The association will:

- Collaborate with the Food and Drug Administration, the U.S. Department of Agriculture, the Centers for Disease Control and Prevention, as well as other organizations, to achieve lower sodium levels in the food supply, support mandatory front-of-pack labeling, develop consumer education campaigns, and promote a progressive sodium reduction strategy to lower the daily consumption of sodium.
- Support efforts by food manufacturers, restaurants, and other food service companies to reduce sodium in their products, and support the FDA's voluntary sodium targets and encourage companies to adopt them.
- Work to ensure that sodium and other nutrition information is available in all restaurants at point of purchase via warning labels 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, as well as for foods and beverages marketed and advertised to children.
- Continue to develop robust surveillance at the state and national level for sodium consumption in the U.S. population, including an updated and comprehensive food database to track sodium changes in the food supply over time.
- 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.
- Explore 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 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.

<sup>1</sup> World Health Organization. Sodium reduction fact sheet. Updated February 7, 2025. Available at: <https://www.who.int/news-room/fact-sheets/detail/sodium-reduction>. Accessed June 27, 2025.

<sup>2</sup> Whelton PK, Carey RM, Aronow WS, Casey DE Jr, Collins KJ, Dennison Himmelfarb C, et al. ACC/AHA/AAPA/ABC/ACPM/AGS/APHA/ASH/ASPC/NMA/PCNA Guideline for the Prevention, Detection, Evaluation, and Management of High Blood Pressure in Adults: A Report of the American College of Cardiology/American Heart Association Task Force on Clinical Practice Guidelines. *Hypertension*. 2018; 71(6):1269–1324. doi: 10.1161/HYP.0000000000000066.

<sup>3</sup> U.S. Centers for Disease Control and Prevention. Hypertension cascade: hypertension prevalence, treatment and control estimates among US adults aged 18 years and older applying the criteria from the American College of Cardiology and American Heart Association's 2017 Hypertension Guideline—NHANES 2017–March 2020. Published May 12, 2023. Available at: <https://millionhearts.hhs.gov/data-reports/hypertension-prevalence.html#print>. Accessed June 27, 2025

<sup>4</sup> Fryar CD, Kit B, Carroll MD, Afari J. Hypertension prevalence, treatment, and control among adults age 18 and older: United States, August 2021–August 2023. *NCHS Data Brief*. 2024; Oct(511): CS354233.

<sup>5</sup> Martin SS, Aday AW, Allen NB, Almarazooq ZI, Anderson CAM, Arora P, et al. 2025 Heart Disease and Stroke Statistics: A Report of US and Global Data from the American Heart Association. *Circulation*. 2025; 151(8): e41–e660. doi: 10.1161/CIR.0000000000001303.

<sup>6</sup> Micha R, Peñalvo JL, Cudhea F, Imamura F, Rehm CD, Mozaffarian D. Association between dietary factors and mortality from heart disease, stroke, and type 2 diabetes in the United States. *JAMA*. 2017;317:912–924. doi: 10.1001/jama.2017.0947. Retrieved from: <https://www.ncbi.nlm.nih.gov/pubmed/28267855>

<sup>7</sup> Dehmer SP, Cogswell ME, Ritchey MD, Hong Y, Maciosek MV, LaFrance AB, et al. Health and budgetary impact of achieving 10-Year U.S. sodium reduction targets. *Am. J. Prev. Med.* 2020; 59, 211–218. doi: 10.1016/j.amepre.2020.03.010.

<sup>8</sup> U.S. Department of Agriculture and U.S. Department of Health & Human Services. 2020–2025 Dietary Guidelines for Americans. 9th Edition. Published December 2020. Available at: <https://www.dietaryguidelines.gov/>. Accessed June 30, 2025.

<sup>9</sup> Harnack LJ, Cogswell ME, Shikany JM, Gardner CD, Gillespie C, Loria CM, et al. Sources of Sodium in US Adults From 3 Geographic Regions. *Circulation* 2017; 135, 1775–1783. doi: 10.1161/CIRCULATIONAHA.116.024446.

<sup>10</sup> Ahmed M, Ng AP, Christoforou A, Mulligan C, L'Abbe MR. Top sodium food sources in the American diet – using National Health and Nutrition Examination Survey. *Nutrients*. 2023; 14(4):831. doi:10.3390/nu15040831.

<sup>11</sup> U.S. Department of Agriculture; Agricultural Research Service. All Restaurants: Percent Reporting, Mean Amounts, and Percent of Selected Nutrients from Foods Obtained from All Restaurants, by Gender and Age, What We Eat in America, NHANES 2017–March 2020 Prevalence. WWEIA Data Tables. Updated August 3, 2022. Available online: [https://www.ars.usda.gov/ARSUserFiles/80400530/pdf/1720/Table\\_53\\_RST\\_GEN\\_1720.pdf](https://www.ars.usda.gov/ARSUserFiles/80400530/pdf/1720/Table_53_RST_GEN_1720.pdf). Accessed September 22, 2025.

<sup>12</sup> Binia A, Jaeger J, Hu Y, Singh A, Zimmermann D. Daily potassium intake and sodium-to-potassium ratio in the reduction of blood pressure: a meta-analysis of randomized controlled trials. *J Hypertens*. 2015;33:1509–1520. doi: 10.1097/HJH.0000000000000611.

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<sup>14</sup> Cogswell ME, et al. (2012). Sodium and potassium intakes among US adults: NHANES 2003–2008. *The American journal of clinical nutrition* 96.3: 647–657.

<sup>15</sup> U.S. Centers for Disease Control and Prevention. Diabetes and Kidney Disease: What to Eat? <https://www.cdc.gov/diabetes/healthy-eating/diabetes-and-kidney-disease-food.html>. 2025. Accessed May 5, 2025.

<sup>16</sup> U.S. Department of Agriculture and U.S. Department of Health & Human Services. 2020–2025 Dietary Guidelines for Americans. 9th Edition. Published December 2020. Available at: <https://www.dietaryguidelines.gov/>. Accessed June 30, 2025.

<sup>17</sup> Whelton PK, Appel LJ, Sacco RL, Anderson CA, Antman EM, Campbell N, et al. Sodium, blood pressure, and cardiovascular disease: further evidence support the American Heart Association sodium reduction recommendations. *Circulation*. 2012; 126(24):2880–9. doi: 10.1161/CIR.0b013e318279acbf.

<sup>18</sup> Cheng J, Thorndike AN, Yi S. Racial and ethnic differences in sodium sources and sodium reduction behaviors among US adults: NHANES 2017–2020 pre-pandemic. *J Am Heart Assoc*. 2025; 14(11):e037997. doi: 10.1161/JAHA.124.037997.

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<sup>20</sup> Joynt Maddox KE, Elkind MSV, Aparicio HJ, Commodore-Mensah Y, de Ferranti SD, Dowd WN, et al. Forecasting the burden of cardiovascular disease and stroke in the United States through 2050–prevalence of risk factors and disease: a Presidential Advisory from the American Heart Association. *Circulation*. 2024; 150(4):e65–e88. doi: 10.1161/CIR.0000000000001256.

<sup>21</sup> Webb et al. Cost Effectiveness of a Government Supported Policy Strategy to Decrease Sodium Intake. *BMJ*. 2017;356:i6699 | doi: 10.1136/bmj.i6699. Retrieved from: <https://www.bmj.com/content/356/bmj.i6699>

<sup>22</sup> Pearson-Stuttard J, Kyriakides C, Collins B, Mozaffarian D, Huang Y, Bandoz P, et al. (2018) Estimating the health and economic effects of the proposed US Food and Drug Administration voluntary sodium reformulation: Microsimulation cost-effectiveness analysis. *PLoS Med* 15(4): e1002551. Retrieved from: <https://journals.plos.org/plosmedicine/article?id=10.1371/journal.pmed.1002551>

<sup>23</sup> He, et al. Salt reduction in England from 2003 to 2011: its relationship to blood pressure, stroke and ischaemic heart disease mortality. *BMJ Open* 2014;4:e004549 doi:10.1136/bmjopen-2013-004549. Retrieved from: <https://bmjopen.bmj.com/content/bmjopen/4/4/e004549.full.pdf>