

Salt: Should I cut back?¹

Asmaa Fatani, Nancy J. Gal, and Wendy J. Dahl²

What is salt?

Dietary salt is made up of sodium and chloride, two essential minerals necessary for good health. Sodium is very important for our body to maintain fluid balance, blood volume, and blood pressure. However, many people consume more dietary sodium (from salt) than needed. Decreasing dietary sodium has received a lot of attention in recent years due to the association of high dietary sodium with high blood pressure (hypertension) and cardiovascular disease (Kloss, Meyer, Graeve, and Vetter 2015). This publication explores the health effects of excessive sodium intake and ways to decrease intake of this mineral.



Credits: iStock / Getty Images Plus

Salt in Our Food

There are two main sources of salt in the typical American diet (Zandstra, Lion, and Newson 2016):

- 1. Processed, fast, and restaurant foods. Processed foods include breads, crackers, and quick bread mixes; smoked or cured canned meat, fish, and poultry; cold cuts; cheese products; canned foods such as soup, chili, vegetables, and beans; frozen meals and snacks; and salted nuts and snack foods.
- 2. Salt added directly to food while cooking and at the table. In addition to salt, many condiments (e.g. soy and fish sauces) and seasonings are very high in sodium.

Consuming many processed foods usually means a high intake of salt and, therefore, sodium. Sodium is a component of many food additives. Examples include baking soda and baking powder, which contain sodium bicarbonate.

Most unprocessed foods have very low levels of naturally occurring sodium. The exception is milk, which contains higher amounts of sodium.

- 1. This document is FSHN18-9, one of a series of the Food Science and Human Nutrition Department, UF/IFAS Extension. Original publication date August 2018. Revised August 2019. Visit the EDIS website at https://edis.ifas.ufl.edu for the currently supported version of this publication.
- 2. Asmaa Fatani, graduate student; Nancy J. Gal, Extension agent IV; and Wendy J. Dahl, associate professor; Food Science and Human Nutrition Department, UF/IFAS Extension, Gainesville, FL 32611.

The Institute of Food and Agricultural Sciences (IFAS) is an Equal Opportunity Institution authorized to provide research, educational information and other services only to individuals and institutions that function with non-discrimination with respect to race, creed, color, religion, age, disability, sex, sexual orientation, marital status, national origin, political opinions or affiliations. For more information on obtaining other UF/IFAS Extension publications, contact your county's UF/IFAS Extension office.

U.S. Department of Agriculture, UF/IFAS Extension Service, University of Florida, IFAS, Florida A & M University Cooperative Extension Program, and Boards of County Commissioners Cooperating. Nick T. Place, dean for UF/IFAS Extension.

How much sodium should we consume?

In many countries, the consumption of sodium is much more than the recommendation (Kloss et al. 2015). In the United States, the Dietary Guidelines for Americans daily dietary recommendation for sodium is less than 2,300 mg per day (USDHHS and USDA 2015). An intake of less than 1,500 mg per day is recommended for those with hypertension (Wheltan, Carey, Aronow et al. 2018). However, the Adequate Intake (AI), the intake that meets the needs of adults over the age of 70 years, for sodium is only 1,200 mg per day.

What do older adults need to know about salt and sodium?

With increasing age, taste sensitivity decreases (Stevens, Cain, Demarque, and Ruthruff 1991). This reduced sense of taste may lead to a preference for saltier foods, resulting in increased sodium intake. Conversely, some older adults may need to limit salt due to health conditions. Although it is uncommon, it is possible that older adults on a low sodium diet combined with very poor food intake may not get enough sodium. This may lead to low blood sodium (known as hyponatremia), a serious, potentially lifethreatening condition.

What are the health benefits of reducing dietary sodium?

Individuals who consume high amounts of dietary sodium should reduce intake to recommended levels. This can help reduce blood pressure and decrease the risk of heart disease and stroke. Decreased sodium intake helps to lower blood pressure in adults with or without hypertension (Whelton et al. 2018). In addition, a modest reduction in salt intake leads to a significant decrease in blood pressure in people at high risk of developing diabetes with normal or slightly raised blood pressure (Suckling, He, Markandu, and MacGregor 2016).

Tips for reducing sodium in your diet:

- Gradually decrease the salt you add to your food in cooking or at the table (Girgis et al. 2003).
- Add herbs and spices to flavor your food instead of salt (Mitchell, Brunton, and Wilkinson 2013). Select naturally sodium-free spices (e.g., cumin, turmeric, and cayenne) and seasonings (e.g., garlic powder compared to garlic salt).

- Buy fresh meats, which are naturally lower in sodium compared to packaged meats. Sodium is added during processing of meats such as bacon and ham.
- Choose fresh vegetables most often, as they are very low in sodium.
- When buying canned foods, choose products that are labeled "low sodium", "no added salt", or "reduced sodium".
- Check the sodium content on food labels before buying processed foods. Choose the brand with lower sodium.

For more information about how to decrease your salt intake, see EDIS publications FS154, *Shopping for Health: Sodium* (FSHN10-06) at http://edis.ifas.ufl.edu/fs154, and HE696, *Nutrition for Health and Fitness: Sodium in Your Diet* (FCS8129) at http://edis.ifas.ufl.edu/he696.

Should I restrict sodium?

Consult your health care provider before making any changes to your diet, especially if you are considering decreasing your sodium intake or using a salt substitute. According to the Dietary Guidelines for Americans 2015–2020, recommendations for limiting sodium are meant for all healthy adults. However, individuals with certain diseases or conditions and those taking certain medications (e.g., diuretics) may be at risk for hyponatremia (low blood sodium).

Summary

Sodium is essential to life and good health. However, high or very low intakes may negatively affect health. Consult with your health care professional prior to making dietary changes.

References

Girgis, S., B. Neal, J. Prescott, J. Prendergast, S. Dumbrell, C. Turner, and M. Woodward. 2003. "A one-quarter reduction in the salt content of bread can be made without detection." *European Journal of Clinical Nutrition*. *57*(4): 616-620. https://doi.org/10.1038/sj.ejcn.1601583

He, F. J., and G. A. MacGregor. 2004. "Effect of longer-term modest salt reduction on blood pressure." *The Cochrane Database of Systematic Reviews.* (3): CD004937. https://doi.org/10.1002/14651858.CD004937

Salt: Should I cut back?

Kloss, L., J. D. Meyer, L. Graeve, and W. Vetter. 2015. "Sodium intake and its reduction by food reformulation in the European Union — A review." *NFS Journal*. 1(Supplement C): 9–19. https://doi.org/10.1016/j.nfs.2015.03.001

Mitchell, M., N. P. Brunton, and M. G. Wilkinson. 2013. "The influence of salt taste threshold on acceptability and purchase intent of reformulated reduced sodium vegetable soups." *Food Quality and Preference*. 28(1): 356–360. https://doi.org/10.1016/j.foodqual.2012.11.002

Stevens, J. C., W. S. Cain, A. Demarque, and A. M. Ruthruff. 1991. "On the discrimination of missing ingredients: Aging and salt flavor." *Appetite*. 16(2): 129–140. https://doi.org/10.1016/0195-6663(91)90038-T

Suckling, R. J., F. J. He, N. D. Markandu, and G. A. MacGregor. 2016. "Modest Salt Reduction Lowers Blood Pressure and Albumin Excretion in Impaired Glucose Tolerance and Type 2 Diabetes Mellitus Novelty and Significance: A Randomized Double-Blind Trial." *Hypertension*. 67(6): 1189–1195. https://doi.org/10.1161/HYPERTENSIONAHA.115.06637

Whelton, P. K., R. M. Carey, W. S. Aronow et al. 2018. "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. 71(19): e127-e248.

Zandstra, E. H., R. Lion, and R. S. Newson. 2016. "Salt reduction: Moving from consumer awareness to action." *Food Quality and Preference*. 48(Part B): 376–381. https://doi.org/10.1016/j.foodqual.2015.03.005

USDHHS and USDA. 2015. "2015 – 2020 Dietary Guidelines for Americans. 8th Edition." http://health.gov/ dietaryguidelines/2015/guidelines/

Salt: Should I cut back?