



# Less Salt. More Flavor.

## What is Sodium?

Sodium is an essential nutrient – it helps to regulate blood pressure and maintain fluid balance in the body. However, the average American consumes about 3,400 milligrams (mg) of sodium each day – that’s more than twice the amount recommended by the American Heart Association. Too much sodium intake can increase blood pressure because it holds excess fluid in the body, putting extra strain on the heart.<sup>1</sup> About 1 in 3 U.S. adults (about 70 million people) have high blood pressure and therefore increased risk of heart disease and stroke.<sup>2</sup>

## Sodium in the Diet

*The Dietary Guidelines for Americans, 2010* recommends limiting sodium intake to no more than 2,300 mg a day and no more than 1,500 mg a day for Americans with high blood pressure or risk factors for high blood pressure (over age 51, African American, diabetes, chronic kidney disease).<sup>3</sup> Sodium in the diet can add up quickly but despite popular belief, the saltshaker is not the culprit – in fact, only about five to ten percent of sodium intake comes from salt added to foods at the table.<sup>4</sup> The majority of sodium in the American diet comes from processed foods and meals at restaurants.

## Shop & Cook Smarter

*There are plenty of simple ways you can reduce sodium intake both at the grocery store and in your kitchen!*

- Choose low-sodium versions of canned soups and vegetables.
- Choose unsalted nuts and seeds.
- Limit cured foods like deli meats, hot dogs and sausages.
- Rinse canned foods to remove up to forty percent of sodium.<sup>6</sup>
- Buy more fresh fruits and vegetables.
- Use herbs, spices and natural flavor enhancers in cooking such as garlic, lemon juice, pepper and parsley.
- Use umami-rich foods like mushrooms, tomatoes, Parmesan cheese and green tea to boost flavor.

Two slices  
of bread  
**160-460mg<sup>3</sup>**

One slice of  
frozen pizza  
**370-730mg<sup>3</sup>**

One serving of  
breakfast cereal  
**150-300mg<sup>3</sup>**

One cup of  
canned soup  
**Up to 790mg<sup>3</sup>**

One serving of  
chips/pretzels  
**Up to 700mg<sup>3</sup>**

# Mushrooms and Umami

Umami is the fifth basic taste after sweet, salty, bitter and sour. Derived from the Japanese word umai, meaning “delicious,” umami (pronounced oo-MAH-mee) is described as a savory, brothy, rich or meaty taste sensation.

To scientists, umami indicates a high level of glutamate, an amino acid and building block of protein. To chefs and food lovers, it’s a satisfying sense of deep, complete flavor, balancing savory flavors and full-bodied taste with distinctive qualities of aroma and mouthfeel. Foods like mushrooms, tomatoes, Parmesan cheese and green tea are rich in umami.

# Cooking with Mushrooms to Lower Sodium

A 2014 study from the Culinary Institute of America and University of California-Davis, published in the Journal of Food Science, explored the flavor-enhancing properties of mushrooms and found that blending finely chopped mushrooms with ground meat enhances flavor and nutrition. As the study shows, a traditional ground meat recipe prepared with 50 percent mushrooms and 50 percent meat (or even 80 percent mushrooms and 20 percent meat) can:

- Reduce calorie, fat and sodium intake, while adding nutrients like vitamin D, potassium (8% DV), B-vitamins and antioxidants.
- Enhance the overall flavor because of double the impact of umami.
- Maintain flavor while reducing sodium intake by 25 percent.<sup>7</sup>

## Tips for Cooking Mushrooms to Enhance Flavor

The 2014 Journal of Food Science study demonstrated that cooking methods have an effect on the flavor profile of white mushrooms.

- **Sear mushrooms** for a more intense roasted, charred and smoky flavor and overall aroma.
- **Roast mushrooms** to get more sweet, salty and umami tastes with caramelized, nutty and buttery flavors.

When cooked properly, mushrooms can take on the texture and consistency of meat. For the best Blend results, mushrooms should be chopped to match the consistency of the meat they’re pairing with.

- **One pan cooking** (great for tacos, sloppy Joes and pasta sauces): brown meat in a pan until cooked through, remove and set aside. Then, add chopped mushrooms to the same pan, sauté and return meat to the pan to complete the recipe.
- **Create a mushroom base** (ideal for burgers, meatballs and meatloaf): roast or sauté mushrooms ahead of time to intensify flavor and then finely chop to add to ground meat dishes.



1. American Heart Association. About Sodium (Salt). Updated October 1, 2015. Accessed October 22, 2015. (Introduction). 2. Centers for Disease Control and Prevention. High Blood Pressure. Accessed October 22, 2015, (2nd paragraph). 3. Centers for Disease Control and Prevention. Get The Facts: Sodium and the Dietary Guidelines. Accessed October 22, 2015. 4. Kohn, Jill. The Facts on Sodium and High Blood Pressure. Academy of Nutrition and Dietetics. Published March, 2015. Accessed October 22, 2015. (3rd paragraph). 5. Campbell's. Classic Chicken Noodle Soup. Nutrition Facts. 6. Shadix, Kyle. Reducing Sodium in Canned Beans – Easier Than 1-2-3. Today's Dietitian. January 2010. (3rd paragraph). 7. Myrdal Miller, A., Mills, K., Wong, T., Drescher, G., Lee, S.M., Sirimuangmoon, C., Schaefer, S., Langstaff, S., Minor, B. and Guinard, J.-X. (2014). Flavor-Enhancing Properties of Mushrooms in Meat-Based Dishes in Which Sodium Has Been Reduced and Meat Has Been Partially Substituted with Mushrooms. Journal of Food Science, 79: S1795-S1804.

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