

# February is National Heart Health Month!

Are you doing your part for your heart? Healthy Eating Tip of the Month: February 2015

## The Impact of Sodium on Heart Health

### The Big Deal About

#### What is Sodium and Why Should it Be Reduced?

- Sodium is an electrolyte the body needs to maintain fluid/water balance and muscle contraction. When it is consumed in excess amounts, it can cause the body to hold on to water, which makes the heart work harder to pump blood through the body.
- Reducing dietary intake of sodium can help reduce high blood pressure (hypertension) by decreasing fluid retention.
- Hypertension (blood pressure >140-159/90-99 mmHg compared to a "normal" value of <120/80 mmHg) can lead to heart health problems.<sup>1</sup>

#### Where Can the Most Sodium Be Found?

- Processed foods
  - Boxed/package meals
  - Frozen/"TV" dinners
- Canned items
  - Soups, vegetables, meats
- Condiments
  - Soy sauce, Worcestershire sauce, salad dressings, barbeque sauce, ketchup, mustard
- Cured meats
  - Bacon, sausage, pepperoni, salami, deli sandwich meats, hotdogs, bologna
- Salt shaker
  - Table salt, sea salt, garlic salt, onion salt
  - 1 tsp of salt = 2,300 mg of sodium
- Restaurants and fast food



### Cutting Back on Sodium

#### Where to Begin Reducing?

- Always read labels!
- Look for "reduced" or "low" sodium versions of food items.
- Avoid additional salt from a salt shaker.
- Buy fresh or frozen vegetables instead of canned.
- Ask to have your food prepared without additional salt at restaurants.
- Select unsalted options of nuts, pretzels, bouillon, and butter, when possible.



#### What Are Salt Alternatives?

- Chili/curry powder
- Lemon/citrus flavors
- Basil, oregano, thyme, allspice
- Onion/garlic powder
- Mrs. Dash® seasonings, pepper
- Nutmeg, cinnamon, ginger



#### What Should I Aim for?

- The 2010 Dietary Guidelines for Americans recommends limiting sodium to 2,300 mg/day for optimal blood pressure levels and heart health, and to 1,500 mg/day for those with hypertension, diabetes, chronic kidney disease, age 51 or older, and/or who are African American.<sup>2</sup>

# Where's the Sodium?

## Natural



### Foods With Natural Sodium



24 mg/cup    34 mg/baby carrot    49 mg/cup

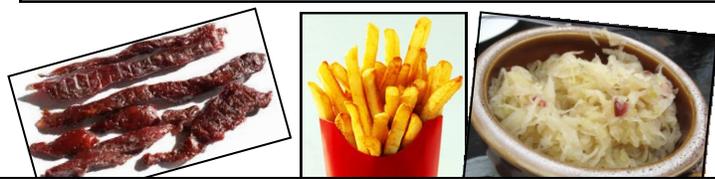


62 mg/egg    9 mg/cup    127 mg/cup skim

### Processed Foods With Excess Sodium



405 mg/oz    462 mg/beef frank    225 mg/ring



438 mg/large strip    168 mg/small    1,560 mg/cup

Sodium is naturally found in small amounts in animal products, fruits, and vegetables. It's only during processing that additional sodium is added to food in excess amounts. The menus below show a comparison between a "natural" 2,000 calorie diet and a 2,000 calorie diet of only fast food.

#### Breakfast:

- 1 cup bran flakes, 1 cup fat-free milk
- 1 small banana
- 1 slice whole wheat toast, 1 tsp soft margarine
- 1 cup orange juice

#### Lunch:

- 2 slices rye bread, 3 oz tuna (packed in water, drained), 2 tsp mayo, 1 Tbsp diced celery, 1/4 cup shredded romaine lettuce, 2 slices tomato
- 1 cup fat-free milk, 1 cup low-fat fruited yogurt
- 1 medium pear, 1/4 cup apricots

#### Dinner:

- 3 oz skinless, roasted chicken breast
- 1 large baked sweet potato
- 1/2 cup peas + onions, 2 tsp soft margarine
- 1 whole wheat dinner roll
- 1 cup spinach leaves, 3 tsp sunflower oil/vinegar dressing
- **Total sodium: 2,000 mg**

#### All Fast Food Menu:

##### Breakfast:

- 1 Sausage Biscuit with Egg sandwich
- 1 hashbrown
- 1 iced coffee (32 oz) with sugar-free French Vanilla syrup

##### Lunch:

- 1 Premium Southwest Salad (11.8 oz) with grilled chicken + 1 creamy ranch packet
- 1 strawberry Gogurt
- 16 oz Diet Coke

##### Dinner:

- 6 piece chicken McNuggets + 2 packets tangy barbeque sauce
- 1 medium french fry
- 16 oz Diet Coke

• **Total sodium: 3,770 mg**

• **This menu provides an additional 1,770 mg of sodium!**

# The Basics of the DASH Diet



Did you know the DASH Diet has been proven by numerous studies to effectively lower high blood pressure?

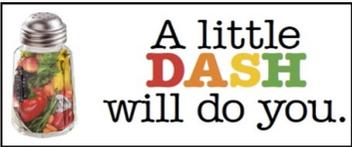
Read on to find out how!

## What is the DASH Diet?

- DASH is an acronym for “Dietary Approaches to Stop Hypertension.”
- The DASH Diet is a set of nutrition guidelines created as a method to decrease hypertension (high blood pressure).
- Its guidelines contain low levels of saturated fat, cholesterol, and total fat.
- DASH places special attention on fruits, vegetables, and fat-free or low-fat milk and milk products. It also includes nuts, whole grains, fish and poultry.
- It contains low amounts of red meat, sweets, added sugars, and sugar-containing beverages in comparison to a standard American diet.
- The DASH Diet is abundant in the minerals potassium, magnesium and calcium, as well as high in protein and fiber. All of these nutrients are important for a healthy body, and studies have shown potassium, calcium and magnesium are specifically involved in lowering hypertension.
- DASH is available in two versions: 2,300 mg of sodium per day and 1,500 mg of sodium per day.
- Blood pressure benefits are seen from dietary compliance to 2,300 mg of sodium per day, but benefits continue with reduction to 1,500 mg.
- Sodium is found in high amounts in processed and boxed/canned foods, condiments, fast food, cured meats, and of course the salt shaker!



# Food Group Breakdown



“The DASH eating plan shown in the following table is based on 2,000 calories per day. Depending on your caloric needs, the number of daily servings of a food group may vary. This chart can be used to help plan menus.”<sup>3</sup>

Food Group	Daily Servings	Serving sizes	Food Item Examples	Nutrients Involved
Grains	6-8	1 slice bread 1 oz dry cereal 1/2 cup cooked pasta, rice, cereal	Brown rice, oatmeal, whole wheat bread, rolls or pasta, pita bread, bagels, popcorn, unsalted pretzels	Major sources of fiber and energy
Vegetables	4-5	1/2 cup cooked or cut-up raw vegetable 1 cup raw leafy vegetable 1/2 cup vegetable juice	Spinach, squash, carrots, broccoli, potatoes, green beans, peas	Rich in magnesium, potassium and fiber
Fruits	4-5	1 medium fruit 1/4 cup dried 1/2 cup fresh, frozen, canned fruit 1/2 cup fruit juice	Oranges, pineapples, peaches, apples, bananas, apricots, strawberries, raisins, grapes	Sources of magnesium, potassium and fiber
Fat-free or low-fat milk or milk products	2-3	1 cup milk or yogurt 1.5 oz cheese	Fat-free (skim) or low-fat (1%) milk, buttermilk or skim, low-, reduced-fat cheese and yogurt	Major sources of calcium and protein
Lean meats, fish, poultry	6 or less	1 oz cooked meat, poultry, fish 1 egg	Chicken, fish, turkey; (lean versions, trim away visible fat, remove poultry skin, and broil, roast or poach to cook)	Rich in protein and magnesium
Nuts, seeds, legumes	4-5 per week	2 Tbsp peanut butter, seeds 1/3 cup or 1.5 oz nuts 1/2 cup cooked legumes	Almonds, mixed nuts, legumes, sunflower seeds, peanut butter, kidney beans, lentils	Rich in energy, magnesium, protein and fiber
Fats and oils	2-3	1 tsp vegetable oil, soft margarine, mayo 2 Tbsp salad dressing	Vegetable oil (canola, olive, corn, safflower), low-fat dressings, mayo	Unsaturated fatty acids in vegetable oils
Sweets and added sugars	5 or less per week	1 Tbsp jelly, jam, sugar 1/2 cup sorbet, gelatin 1 cup lemonade	Fruit punch, hard candy, jelly, maple syrup, sorbet	_____

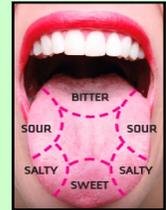
Table: [http://www.nhlbi.nih.gov/files/docs/public/heart/new\\_dash.pdf](http://www.nhlbi.nih.gov/files/docs/public/heart/new_dash.pdf)

## Show Me the Facts

- The DASH Diet is based on research studies sponsored by the National Heart, Lung, and Blood Institute (NHLBI), is supported by the American Heart Association (AHA), and the *2010 Dietary Guidelines for Americans*, which is updated every 5 years.<sup>4</sup>
- Research has shown the DASH Diet lowers high blood pressure and improves blood levels of lipids (fats), which reduces the risk of developing cardiovascular disease.<sup>5</sup>
- Individuals who are African American, are age 51 or older, and/or have hypertension, diabetes, or chronic kidney disease, tend to be even more affected by high blood pressure and show a greater need to reduce their sodium intake.<sup>3</sup>
- “A recent study completed in 2013 shows that a DASH-like diet can significantly protect against cardiovascular disease, coronary artery disease, stroke and heart failure risk by 20%, 21%, 19% and 29%, respectively.”<sup>5</sup>

## Fun Facts About Salt

- Salt is a learned taste that is one of five categories of taste buds on the tongue: sweet, sour, bitter, salty and savory.<sup>6</sup>
- The “tongue taste map” has been taught for years and shows parts of the tongue where different taste buds were thought to be located. This has been proven incorrect; all areas of the tongue can detect all 5 categories of taste, some areas are just more sensitive to certain taste categories.<sup>7</sup>
- As we age, we lose some of the original ~9,000 taste buds that affect our ability to taste, which may lead our grandparents to add more salt to their food!<sup>7</sup>
- Giving up excess salt allows for the “real” flavor of food to be tasted, but is best done slowly so there is time to adjust to the taste difference.



# DASH into Heart Healthy Recipes!

Read on to find 4 recipes that are compliant with the DASH Diet guidelines (<2,300 mg of sodium per day) to help lower blood pressure!



## 1) Fruit and Nut Dessert Bar:

### Ingredients:

- 1/2 cup quinoa flour
- 1/2 cup oats
- 1/4 cup flax meal
- 1/4 cup wheat germ
- 1/4 cup chopped almonds
- 1/4 cup dried apricots
- 1/4 cup chopped dried figs
- 1/4 cup buckwheat honey
- 1/4 cup chopped dried pineapple
- 2 tablespoons cornstarch



- Combine all ingredients, mix well. Spread half an inch thick over a parchment-lined sheet pan. Bake at 300 °F for 20 minutes. Cool completely and cut.

Serving size: 1 bar Yield: 24 bars

Fat	1 g	Protein	2 g
Calories	61	<b>Sodium</b>	<b>5 mg</b>

## 2) Roasted Squash Soup:

### Ingredients:

- 1 small butternut squash
- 2 teaspoons canola oil, divided
- 1 cup diced celery
- 1 1/2 cups diced yellow onion
- 1 1/2 cups spinach
- 2 cloves garlic, minced
- 1 cup diced carrot
- 2 cups unsalted vegetable stock
- 1 teaspoon sage
- 1/2 teaspoon nutmeg
- 1 teaspoon black pepper



- Cut squash into half-inch pieces, put in a roasting pan and toss with 1 teaspoon of oil. Roast at 400 °F for 40 minutes or until brown.

- Add remaining oil to a large pot. Add vegetables and sauté over medium heat until vegetables are lightly browned. Add stock, spices and squash to pot, and simmer for a few minutes.

- Carefully puree soup with a stick blender, or process soup in batches in a blender or food processor. Return pureed soup to pot and bring back to a simmer. Done!

Serving size: 2 cups. Yield: 4.

Fat	3 g	Protein	4 g
Calories	195	<b>Sodium</b>	<b>72 mg</b>

The DASH Diet provides realistic guidelines to help you make heart-healthy dietary changes and are proven to help reduce high blood pressure!



### 3) Stuffed Chicken Breasts:

Ingredients:

- 3 tablespoons seedless raisins
- 1/2 cup chopped onion
- 1/2 cup chopped celery
- 1 bay leaf
- 1 cup chopped and peeled apple
- 2 tablespoons chopped water chestnuts
- 4 large boneless chicken breast halves, each about 6 ounces
- 2 tablespoons olive oil
- 1 cup fat-free milk
- 1 teaspoon curry powder
- 2 tablespoons all-purpose (plain) flour
- 1 lemon, cut into 4 wedges



- Preheat the oven to 425 °F. Lightly coat a baking dish with cooking spray. In a small bowl, add the raisins and cover with warm water. Set aside and allow the raisins to swell.

- Spray a large skillet with cooking spray. Add the onions, celery, garlic and bay leaf. Sauté until the onions are translucent, about 5 minutes. Remove the bay leaf and add the apples. Cook for another 2 minutes, stirring occasionally.

- Drain the raisins and pat with paper towels to remove the excess water. Add the raisins to the apple mixture. Stir in the water chestnuts and remove from heat. Let cool.

- Loosen the skin on the chicken breasts. Place the apple-raisin mixture between the skin and breast. In another skillet, heat the olive oil over medium heat. Add the chicken breasts and cook until browned, about 5 minutes on each side.

- Transfer the chicken breasts to the prepared baking dish. Cover and bake until a meat thermometer registers 165 °F, or about 15 minutes. Remove from the oven.

- While the chicken is baking, heat the milk, curry powder and flour over low heat in a saucepan. Stir until the mixture thickens, about 5 minutes. Pour the mixture over the chicken breasts. Cover and return the chicken to the oven and bake another 10 minutes.

- Transfer the chicken breasts to warmed individual plates. Spoon the sauce from the pan over the chicken and garnish with lemon wedges.

*Serving size: 1 chicken breast Yield: 4*

Fat	15 g	Protein	37 g
Calories	359	<b>Sodium</b>	<b>120 mg</b>

### 4) Ginger-Marinated Grilled Portobello Mushrooms:

Ingredients:

- 4 large Portobello mushrooms
- 1/4 cup balsamic vinegar
- 1/2 cup pineapple juice
- 2 tablespoons chopped fresh ginger, peeled
- 1 tablespoon fresh, chopped basil



- Clean mushrooms with a damp cloth and remove their stems. Place in a glass dish, stemless (grill) side up.

- To prepare the marinade, in a small bowl whisk together the vinegar, pineapple juice and ginger. Drizzle the marinade over the mushrooms.

- Cover and let marinate in the refrigerator for 1 hour, turning mushrooms once.

- Prepare a hot fire in a charcoal grill or heat a gas grill or broiler. Away from the heat source, lightly coat the grill rack or broiler pan with cooking spray. Position the cooking rack 4 to 6 inches from the heat source.

- Grill or broil the mushrooms on medium heat, turning often, until tender, about 5 minutes on each side. Baste with marinade to keep from drying out. Using tongs, transfer the mushrooms to a serving platter. Garnish with basil and serve immediately.

*Serving size: 1 mushroom. Yield: 4.*

Fat	< 1 g	Protein	3 g
Calories	65	<b>Sodium</b>	<b>15 mg</b>

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