

Get Pumped up for Postassium

Ingrid Adams, Nutrition and Food Science

Did You Know?

More than half of Americans have high blood pressure or are on their way to having high blood pressure. For many of us, our diets are too high in sodium and too low in potassium. A diet high in potassium can lower blood pressure, especially in individuals who are sensitive to sodium. When foods high in potassium are eaten, the kidneys get rid of excess dietary sodium, which helps to lower blood pressure. High blood pressure is associated with an increased risk of stroke. Studies show the risk of stroke was lower in men who consumed 4.3 grams of potassium a day compared with men who consumed 2.4 grams of potassium a day. Learning about potassium and foods that are good sources could go a long way to improving your health.



Potassium helps lower blood pressure by aiding the kidneys in removing excess sodium in the body.

What Is Potassium?

Potassium is a mineral found in a variety of foods, such as fruits, vegetables, meats, and dairy products.

Why Do I Need to Eat Potassium?

Potassium helps lower blood pressure by causing the kidneys to get rid of the extra sodium the body does not need. The average American eats 49 percent more sodium than is needed daily.

Not only does potassium keep blood pressure under control, it has many other benefits. Potassium:

- Maintains water balance in the body
- Helps build muscles; potassium is important for athletes who lose muscle during exercise
- Helps with the digestion of carbohydrates, which is useful in controlling blood glucose (sugar) levels

- Maintains normal growth as we age
- Helps prevent stroke and heart disease

How Much Potassium Do I Need?

The amount of potassium a person needs changes with age (Table 1). The older a person gets the more potassium the body needs to keep it balanced. The average American only gets about half of the recommended amount of potassium needed daily. Women tend to have lower potassium intake than men.

Table 1. Recommended potassium intake by age.

Age Group	Daily Potassium Recommendation (mg)
0-6 months	400
7-12 months	700
1-3 years	3000
4-8 years	3800
9-13 years	4500
14-18 years	4700
>18 years	4700

Source: Dietary Guidelines for Americans, 2010

Who Needs More Potassium?

Athletes

Athletes need more potassium because potassium is lost in sweat and in the muscles during vigorous exercise. If the potassium loss is not replaced, athletes get muscle cramps and even heart irregularities. The amount of potassium that will be needed to replace the lost potassium depends on the type and amount of activity.

Breast-feeding Women

Women who are breast-feeding need higher amounts of potassium because they lose potassium in breast milk. When women who are breast-feeding make milk, potassium is removed from their bodies and added to the breast milk. The recommended potassium intake for a breast-feeding mother is 5,100 mg/day.

Potassium-Powered Foods

Many foods have potassium. All meats (red meat and poultry) and fish (salmon, cod, flounder, and tilapia) are good sources of potassium. Soy products also are good sources of potassium.

Citrus fruits, cantaloupe, bananas, kiwi, prunes, and apricots are high sources of potassium, and dried apricots have more potassium than fresh apricots. Milk and yogurt also contain high amounts of potassium. Broccoli, peas, lima beans, tomatoes, potatoes with skin, and winter squashes are high in potassium.

When a food has more than 300 mg of potassium, it is said to be

a good source of potassium. A food with 200-300 mg of potassium is a fair source. A food with less than 100 mg of potassium is a poor source of potassium.

Pump Up your Potassium Intake

- Drink 4 to 6 ounces of orange juice at breakfast to begin your day with a potassium boost.
- Add leafy green vegetables to all your sandwiches. Spinach in particular is loaded with potassium.
- Add dried apricots to your mid-morning yogurt for a double boost of potassium. Both yogurt and apricots have potassium.

- Add bean soup to your lunch for a warm dose of potassium.
- Add a baked regular or sweet potato to your dinner plate for a potassium-rich side dish.

Lower Sodium while Boosting Potassium

- Fresh fruits and vegetables are naturally high in potassium and low in sodium. Canned fruit and vegetables are high in sodium. Therefore, you should choose fresh and frozen fruit and vegetables over canned when shopping at the grocery.
- If you choose to buy canned vegetables, choose cans labeled “reduced sodium,” “no salt added,” or “sodium-free.”

Table 2. Sources of potassium.

Food Group	Good Sources	Fair Sources
Vegetables	Potato, baked with skin, small	Broccoli, ½ c
	White beans, ½ c	Beets, ½ c
	Sweet potato, baked with skin, medium	
	Spinach, cooked, ½ c	
	Tomato sauce, ½ c	
	Carrots, 1 c	
Proteins	Halibut, cooked 3 oz	Beef, 3 oz
	Soybeans, cooked, ½ c	Ham, 3 oz
	Cod, cooked, 3 oz	Pork, fresh, 3 oz
	Kidney beans, cooked, ½ c	Lamb, 3 oz
	Chicken, 3 oz	
	Turkey, 3 oz	
Fruits	Banana, medium	Apples 1 large
	Apricots, dried, ¼ c	Grapefruit juice, ½ c
	Avocado, ¼ c	Orange, 1 large
	Cantaloupe, 1 c	Peaches, 1 medium
	Nectarines, 1 large	Strawberries, 1 c
Dairy	Milk, skim, 1 c	Ice cream, ½ c
	Soy milk, 1 c	
	Yogurt, 1 c	
	Buttermilk, 1 c	

Source: American Academy of Nutrition and Dietetics

- Canned beans can be an excellent source of potassium but are generally high in sodium. Pick canned beans that have a “reduced sodium” label.
- Reduce your intake of processed food, such as prepared dinners, bacon, hotdogs, pizza, and fast food. These foods tend to be high in sodium and low in potassium. By cooking fresh foods, you will get more potassium with low sodium for the same product.
- Try a potassium-based salt substitute to lower your sodium and raise your potassium. Talk to your doctor beforehand to make sure it is the right choice for you.

Other Minerals that Lower Blood Pressure

The minerals calcium and magnesium work together with potassium to lower blood pressure. Individuals with low calcium intake are more likely to have hypertension. Research shows that individuals with dietary patterns that include high amount of potassium, calcium, magnesium and fiber have lower blood pressure. The diets of vegetarians are high in these nutrients and research shows that vegetarians generally have lower blood pressure than non-vegetarians.

Buying Kentucky Proud is easy. Look for the label at your grocery store, farmers' market, or roadside stand.



Table 3. Food choices low in sodium and high in potassium.

Food	Sodium (mg)	Potassium (mg)
White beans, cooked, 1 c	11	1,004
Spinach, cooked, 1 c	126	839
Plain yogurt, 1 c	172	531
Sweet potato, cooked, ½ c	36	475
Broccoli, cooked, 1 c	64	457
Cantaloupe cubes, 1 c	26	427
Salmon, cooked, 3 oz	49	369
Cherry tomatoes, 1 c	7	353
Blackberries, 1 c	1	233
Orange, medium	1	232
Grapefruit, halved	0	166
Romaine lettuce, 1 c	4	162

Stuffed Sweet Potatoes Recipe

Ingredients

- 1½ pounds sweet potatoes, washed
- 2 ounces orange or apple juice
- 3 teaspoons margarine, melted
- 1 tablespoon brown sugar
- ¼ teaspoon nutmeg
- 2 tablespoons chopped walnuts

Instructions

- Preheat oven to 375°F.
- With a fork, prick holes in sweet potatoes, and bake 45-60 minutes or until tender.
- Remove from oven and cool slightly for better handling.
- Slice each potato in half diagonally.
- Scoop out most of potato, leaving approximately ¼ inch around skin.
- Put potatoes in mixing bowl along with juice, sugar, 2 teaspoons margarine, and nutmeg and whip until smooth.
- Place potato skins into a 13 x 9 baking pan, and fill with potato mixture. Set aside.
- In non-stick fry pan, add remaining margarine and sauté walnuts until toasted.
- Sprinkle potatoes evenly with walnuts.
- Bake for 15-20 minutes until thoroughly heated.

References

- Anderson, J. Young, L. Long, E. "Potassium and Healthy." Colorado State University Extension, Aug. 2008. Accessed Sept. 26, 2012: <http://www.ext.colostate.edu/pubs/foodnut/09355.html>.
- Blake, Joan Salge. "Potassium Power." *Academy of Nutrition and Dietetics*. Academy of Nutrition and Dietetics, Aug. 1, 2010. Accessed Sept. 7, 2012: <http://www.eatright.org/media/blog.aspx?id=4294968401&blogid=269>.
- Panel on Dietary Reference Intakes for Electrolytes and Water, Standing Committee on the Scientific Evaluation of Dietary Reference Intakes. *Dietary Reference Intakes for Water, Potassium, Sodium, Chloride, and Sulfate*. Washington, D.C.: The National Academies Press, 2004.
- "Shifting the Balance of Sodium and Potassium in Your Diet." *The Nutrition Source*. Harvard School of Public Health. 2012. Web 26 Sep 2012. <<http://www.hsph.harvard.edu/nutritionsource/salt/sodium-potassium-balance/>>.
- United States Department of Agriculture. Center for Nutrition Policy and Promotion. *Dietary Guidelines for Americans*. 2010. National Academy Press, Washington, D.C., 2010.
- Yang, Q. Liu, T. Kuklina, E.V. Flanders, W.D. Hong, Y. Gillespie, C. Chang, M.H. Gwinn, M. Dowling, N. Khoury, M.J. Hu. "Sodium and potassium intake and mortality among U.S. adults: prospective data from the Third National Health and Nutrition Examination Survey." Division for Heart Diseases and Stroke Prevention. July 11, 2011. Accessed Sept. 26, 2012: <http://www.ncbi.nlm.nih.gov/pubmed/21747015>.

Resources

- U.S. Department of Health and Human Services. National Institutes of Health. National Heart, Lung, and Blood Institute. Accessed October 1, 2012: http://www.nhlbi.nih.gov/health/public/heart/hbp/dash/new_dash.pdf.

Project assistant, Laura Tincher, Dietetics and Human Nutrition graduate student.