

POTASSIUM AND HEALTH

Hypertension and Potassium

Everyone knows that high sodium intake can increase the risk of hypertension. Potassium also may play a role. However, the ratio of sodium to potassium may be more important than the specific amounts of sodium or potassium that a person consumes. A sodium/potassium ratio of 1/1 is recommended.

A low-potassium, high-sodium diet may contribute to high blood pressure or even cancer. Increasing the potassium in the diet, however, may have a protective effect. A diet rich in high-potassium fruit and vegetables is strongly recommended. Fresh produce are best; normal potassium content is reduced when foods are canned or frozen. Avoid peeling fruits and vegetables.

Functions

Potassium and sodium work together to maintain the body's water balance. Potassium also is involved in the function of nerves, muscles, and certain enzymes. Potassium may have a protective effect in hypertension; increased potassium intake results in increased sodium excretion. Potassium also helps to regulate blood pressure and to maintain normal muscle contraction, as well as maintaining water balance in tissues and cells. Potassium deficiency results in fatigue and muscle weakness; these are the first signs of potassium deficiency.

The kidneys regulate the body's potassium levels. A potassium deficiency is not common but may result from severe diarrhea, poor control of diabetes, very-low-calorie diet (less than 800 calories/day), chronic alcoholism, or the use of some diuretics or laxatives. Diuretics, which are taken to eliminate excess sodium from the body, also result in loss of potassium, so you should eat potassium-rich foods when taking diuretics. You also may be prescribed a potassium supplement while taking diuretics.

Requirements and Sources

The daily recommended allowance for potassium has been established at 3,500 mg. Potassium can be found in many foods (see chart below), especially meat, milk, fruits, and vegetables, so people who eat a variety of foods should be able to reach the recommended amount.

Most highly processed foods (this includes most "fast" food) have a lot of sodium added to them; potassium is not added. Using more fresh and frozen foods, which are lower in sodium and higher in potassium, may be helpful in obtaining the desired 1/1 sodium/potassium ratio.

Where's the Potassium?

Very good sources (300 mg or more)	Serving size	Fair sources (200–300 mg)	Serving size	Poor sources (less than 100 mg)	Serving size
Breads and Cereals		Breads and Cereals		Breads and Cereals	
None		None		Bread	1 slice
				Breakfast cereals	½ cup
				Pasta	¾ cup
Dairy		Dairy		Dairy	
*Buttermilk	1 cup	Ice cream	1 cup	*American cheese	1 ounce
Milk	1 cup			Natural cheese	1 ounce
Yogurt	1 cup			Eggs	1
Fruit		Fruit		Fruit	
Apricots	3	Apple	1 large	Applesauce	½ cup
Avocado	¼	Grapefruit juice	½ cup	Blueberries	½ cup
Banana	1 medium	Orange	1 medium	Grapes	10 medium
Cantaloupe	1 cup	Orange juice	½ cup		
Dates	10 medium	Peach	1 medium		
Honeydew melon	1 cup	Pear	1 medium		
Nectarine	1 large	Strawberries	1 cup		
Prunes	10 medium				
Raisins	¼ cup				
Meat		Meat		Meat	
Chicken	3 ounces	Beef	3 ounces	*Bacon	3 slices
Fish	3 ounces	*Ham	3 ounces	*Bologna	1 slice
*Salmon, tuna	3 ounces	Lamb	3 ounces	*Corned beef	3 ounces
Turkey	3 ounces	Pork, fresh	3 ounces	*Frankfurter	1
Vegetables		Vegetables		Vegetables	
Carrot	1 large	Broccoli	½ cup	Corn	½ cup
Celery	1 stalk	Beets	½ cup	*Olives	10

Dry beans, cooked	½ cup	Peas	½ cup		
Greens, cooked	½ cup				
Potato, baked	1 medium				
Spinach	½ cup				
Squash, winter	½ cup				
Sweet potato	1 large				
Tomato	1 large				
†Tomato juice	1 cup				
Other		Other		Other	
Molasses	2 T	*Dill pickle	1	Butter	1 T
Nuts, unsalted	½ cup	Peanut butter	2 T	Salad dressing	1 T

*These foods have a high sodium content (greater than 300 mg per serving).

†Note: Canned vegetables have a much higher sodium content than fresh or frozen.

From "Service in Action," published by the Colorado State University Extension Service, 1984.