

Potassium Fact Sheet for Consumers



Dried apricots are an excellent source of potassium.

What is potassium and what does it do?

Potassium is a mineral found in many foods. Your body needs potassium for almost everything it does, including proper kidney and heart function, muscle contraction, and nerve transmission.

How much potassium do I need?

The amount of potassium you need each day depends on your age. Average daily recommended amounts are listed below in milligrams (mg).

Life Stage	Recommended Amount
Birth to 6 months	400 mg
Infants 7–12 months	700 mg
Children 1–3 years	3,000 mg
Children 4–8 years	3,800 mg
Children 9–13 years	4,500 mg
Teens 14–18 years	4,700 mg
Adults 19+ years	4,700 mg
Pregnant teens and women	4,700 mg
Breastfeeding teens and women	5,100 mg

What foods provide potassium?

Potassium is found in many foods. With thoughtful planning, you can get recommended amounts of potassium by eating a variety of foods, including the following:

- Fruits, such as dried apricots, prunes, raisins, orange juice, and bananas
- Vegetables, such as acorn squash, potatoes, spinach, tomatoes, and broccoli
- Lentils, kidney beans, soybeans, and nuts
- Milk and yogurt
- Meats, poultry, and fish

Salt substitutes

Potassium is an ingredient in many salt substitutes that people use to replace table salt. If you have kidney disease or if you take certain medications, these products could make your potassium levels too high. Talk to your healthcare provider before using salt substitutes.

What kinds of potassium dietary supplements are available?

Potassium is found in many multivitamin/multimineral supplements and in supplements that contain only potassium. Potassium in supplements comes in many different forms— a common form is potassium chloride, but other forms used in supplements are potassium citrate, potassium phosphate, potassium aspartate,

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potassium bicarbonate, and potassium gluconate. Research has not shown that any form of potassium is better than the others. Most dietary supplements provide only small amounts of potassium, no more than 99 mg per serving.

Am I getting enough potassium?

The diets of most people in the United States provide much less than recommended amounts of potassium. Even when food and dietary supplements are combined, total potassium intakes for most people are well below recommended amounts.

Certain groups of people are more likely than others to have trouble getting enough potassium:

- People with inflammatory bowel disease (such as Crohn's disease or ulcerative colitis)
- People who use certain medications (such as laxatives or some diuretics)
- People with pica (meaning that they eat things that aren't food, such as clay)

What happens if I don't get enough potassium?

Getting too little potassium can increase blood pressure, deplete calcium in bones, and increase the risk of kidney stones.

Prolonged diarrhea or vomiting, laxative abuse, diuretic use, eating clay, heavy sweating, dialysis, or using certain medications can cause severe potassium deficiency. In this condition, called hypokalemia, blood levels of potassium are very low. Symptoms of hypokalemia include constipation, tiredness, muscle weakness, and not feeling well. More severe hypokalemia can cause increased urination, decreased brain function, high blood sugar levels, muscle paralysis, difficulty breathing, and irregular heartbeat. Severe hypokalemia can be life threatening.

What are some effects of potassium on health?

Scientists are studying potassium to understand how it affects health. Here are some examples of what this research has shown.

High blood pressure and stroke

High blood pressure is a major risk factor for heart disease and stroke. People with low intakes of potassium have an increased risk of developing high blood pressure, especially if their diet is high in salt (sodium). Increasing the amount of potassium in your diet and decreasing the amount of sodium might help lower your blood pressure and reduce your risk of stroke.

Kidney stones

Getting too little potassium can deplete calcium from bones and increase the amount of calcium in urine. This calcium can form hard deposits (stones) in your kidneys, which can be very painful. Increasing the amount of potassium in your diet might reduce your risk of developing kidney stones.

Bone health

People who have high intakes of potassium from fruits and vegetables seem to have stronger bones. Eating more of these foods might improve your bone health by increasing bone mineral density (a measure of bone strength).

Blood sugar control and type 2 diabetes

Low intakes of potassium might increase blood sugar levels. Over time, this can increase the risk of developing insulin resistance and lead to type 2 diabetes. But more research is needed to fully understand whether potassium intakes affect blood sugar levels and the risk of type 2 diabetes.

Can potassium be harmful?

Potassium from food has not been shown to cause any harm in healthy people who have normal kidney function. Excess potassium is eliminated in the urine.

However, people who have chronic kidney disease and those who use certain medications can develop abnormally high levels of potassium in their blood (a condition called hyperkalemia). Examples of these medications are angiotensin converting enzyme inhibitors, also known as ACE inhibitors, and potassium-sparing diuretics. Hyperkalemia can occur in these people even when they consume typical amounts of potassium from food.

Hyperkalemia can also develop in people with type 1 diabetes, congestive heart failure, liver disease, or adrenal insufficiency. Adrenal insufficiency is a condition in which the adrenal glands, located just above the kidneys, don't produce enough of certain hormones.

Even in healthy people, getting too much potassium from supplements or salt substitutes can cause hyperkalemia if they consume so much potassium that their bodies can't eliminate the excess.

People at risk of hyperkalemia should talk to their healthcare providers about how much potassium they can safely get from food and supplements. The National Kidney Disease Education Program has information about food choices that can help lower potassium levels.

Are there any interactions with potassium that I should know about?

Yes, some medications may interact with potassium. Here are a few examples:

ACE inhibitors and angiotensin receptor blockers (ARBs)

ACE inhibitors, such as benazepril (Lotensin®), and ARBs, such as losartan (Cozaar®), are used to treat high blood pressure, heart disease, and kidney disease. They decrease the amount of potassium lost in the urine and can make potassium levels too high, especially in people who have kidney problems.

Potassium-sparing diuretics

Potassium-sparing diuretics, such as amiloride (Midamor®) and spironolactone (Aldactone®), are used to treat high blood pressure and congestive heart failure. These medications decrease the amount of potassium lost in the urine and can make potassium levels too high, especially in people who have kidney problems.

Loop and thiazide diuretics

Loop diuretics, such as furosemide (Lasix®) and bumetanide (Bumex®), and thiazide diuretics, such as chlorothiazide (Diuril®) and metolazone (Zaroxolyn®), are used to treat high blood pressure and edema. These medications increase the amount of potassium lost in the urine and can cause abnormally low levels of potassium.

Tell your doctor, pharmacist, and other healthcare providers about any dietary supplements and prescription or over-the-counter medicines you take. They can tell you if the dietary supplements might interact with your medicines or if the medicines might interfere with how your body absorbs, uses, or breaks down nutrients, such as potassium.

Potassium and healthful eating

People should get most of their nutrients from food, advises the federal government's *Dietary Guidelines for Americans*. Foods contain vitamins, minerals, dietary fiber, and other substances that benefit health. In some cases, fortified foods and dietary supplements provide nutrients that people

otherwise might consume in less-than-recommended amounts. For more information about building a healthy diet, see the Dietary Guidelines for Americans and the U.S. Department of Agriculture's MyPlate.

Where can I find out more about potassium?

For general information about potassium:

- Office of Dietary Supplements Health Professional Fact Sheet on Potassium

For more information on food sources of potassium:

- U.S. Department of Agriculture's (USDA) National Nutrient Database
- Nutrient List for potassium (listed by food or by potassium content), USDA

For more advice on buying dietary supplements:

- Office of Dietary Supplements Frequently Asked Questions: Which brand(s) of dietary supplements should I purchase?

For information about building a healthy diet:

- MyPlate
- *Dietary Guidelines for Americans*

Disclaimer

This fact sheet by the Office of Dietary Supplements (ODS) provides information that should not take the place of medical advice. We encourage you to talk to your healthcare providers (doctor, registered dietitian, pharmacist, etc.) about your interest in, questions about, or use of dietary supplements and what may be best for your overall health. Any mention in this publication of a specific product or service, or recommendation from an organization or professional society, does not represent an endorsement by ODS of that product, service, or expert advice.



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