

Using Nutrition To Improve Hypertension

The Centers for Disease Control and Prevention estimates that nearly half of adults in the United States have hypertension which causes more than half of all cardiovascular disease. Lifestyle modifications, such as engaging in regular physical activity, losing weight, and following the low-salt Dietary Approaches to Stop Hypertension (DASH) diet are the foundation of most hypertension treatment programs. In addition, nutritional supplements can also help compensate for the imperfect diet most Americans follow. Nutraceuticals can fill in the gaps on days when people do not eat perfectly and supply nutrients in amounts difficult to get from diet alone.

Supplements have a hand in lowering blood pressure

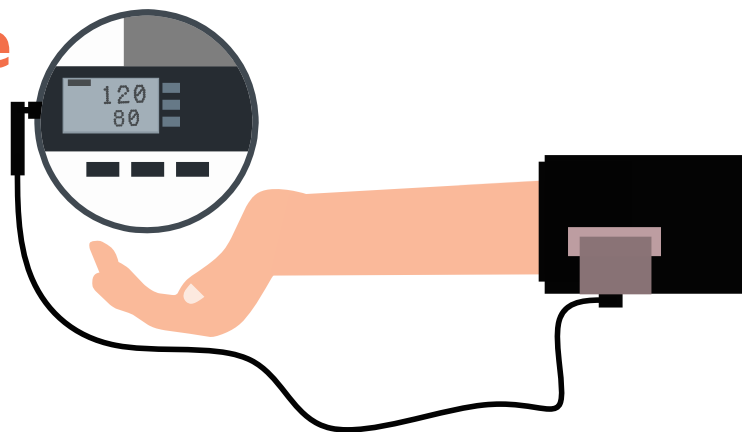
Coenzyme Q10: Treatment with coenzyme Q10 supplements was shown to reduce systolic blood pressure (blood pressure) by 16 mmHg in a meta-analysis of randomized controlled trials. The relatively high dosage for this effect ranges from 100 to 300 mg of CoQ10 daily.

Soy protein: Researchers found that a dose of 40 g/day caused a subsequent decrease in systolic blood pressure of 7.8 mmHg. Soy protein may also decrease plasma glucose concentration and decrease insulin resistance, a possible risk factor for the development of hypertension.

Omega-3 fatty acids: Omega-3 supplements are known for their heart-health benefits, especially the ones in fish oil, including EPA and DHA, lower heart disease, stroke, and hypertension risk. However, Americans consume far too little of this fat, averaging no more than 100 mg/day. American Heart Association recommends minimally 3 grams of omega-3 fatty acids daily, in food or supplement form, to help lower blood pressure.

Vitamin D: Researchers found that patients with hypertension were more likely to have diminished levels of vitamin D, with vitamin D supplementation subsequently decreased systolic blood pressure by approximately 2.4 mmHg.

Studies showed a very strong correlation between vitamin D deficiency and hypertension, peripheral vascular disease, diabetes, and heart disease. Most people in the US are vitamin D deficient—70% or more with serum vitamin D levels below 30 ng/mL. The daily recommended vitamin D3 for adult varies from 2,000 to 4,000 IUs, depending upon individual vitamin D serum level.



Calcium, Potassium, and Magnesium:

A systematic review showed that increased calcium intake slightly reduced both systolic and diastolic blood pressure in individuals with low calcium intake, particularly in young people, suggesting a role in the prevention of hypertension. Even small reductions in blood pressure could have important health implications for reducing vascular disease. A 2 mmHg lower systolic blood pressure is predicted to result in mortality rate declines of about 10% for stroke and 7% for ischemic heart disease.

Potassium and sodium, two major electrolytes, normally maintain fluid and blood volume. However, consuming too little potassium and too much sodium can raise the blood pressure. Foods rich in potassium are important in managing high blood pressure because potassium lessens the effects of sodium. Potassium also helps to relax blood vessel walls, which helps further lower blood pressure. However, excess potassium can be harmful in people with kidney disorders. Consult your health care professional before taking any over-the-counter (OTC) potassium supplement.

There is evidence that inadequate magnesium intake can worsen high blood pressure. Magnesium helps lower blood pressure in several ways. It helps relax blood vessels, increase nitric oxide levels, and reduce endothelial dysfunction. Studies on supplementing magnesium levels indicate that 300 mg/day is enough to impact blood pressure significantly.

Dietary fiber: Dietary fiber is important for maintaining heart and gut health. Eating enough dietary fiber can help to lower blood pressure, cholesterol levels, and the risk of cardiovascular disease. A systematic review reports that some dietary fiber supplements may lower both diastolic and systolic blood pressure, supplementing the diet with about 12 grams of fiber daily could help reduce blood pressure by a small amount. The Food and Drug Administration (FDA) recommends consuming 25 grams of fiber per day and notes that most people in the U.S. do not eat this amount. Therefore, adding plenty of healthy, high-fiber foods to the diet can help, and fiber supplements can be a good alternative.