

OPTIMAL HEALTH UNIVERSITY™

Presented by Dr. Michael K. Corey

The Power of Potassium

The human diet once contained plenty of potassium, but as our diets began including more processed foods and fewer fresh fruits and vegetables, potassium intake levels plummeted. Scientists now suspect this may be behind the recent rise in chronic diseases like heart disease and osteoporosis.

Dr. Corey is concerned about this nutritional shift because prevention is the cornerstone of the chiropractic lifestyle. This lifestyle includes regular chiropractic care, exercise, nutrition and other preventive measures. Dr. Corey encourages patients to focus on preventing disease and illness, and be aware of the latest research.

What Is Potassium?

Potassium is an element (and an electrolyte) that's essential for the body's growth and maintenance. It's necessary to ensure:

- ✓ A normal water balance between cells and body fluids
- ✓ The response of nerves to stimulation
- ✓ The contraction of muscles

Potassium works closely with sodium, through a mechanism known as the sodium-potassium pump, to perform all the above tasks.

Potassium occurs naturally in a wide variety of foods. As a result, severe dietary deficiency of potassium is uncommon. However, you may be at risk of potassium deficiency if you experi-

ence excessive fluid loss, through vomiting, diarrhea or sweating, or if you take certain medications.

However, Dr. Corey is concerned about new research revealing that the typical American diet, high in sodium-containing processed foods and low in fruits and vegetables, may be leaving many, although not severely deficient, lacking in potassium. In other words, the modern diet is upsetting the delicate balance between potassium and sodium in the body. And this imbalance may be causing many chronic health problems.

A study in the scientific journal *Physiologia Plantarum* explains: "Until recently, humans consumed a diet high in potassium. However, with the increasing consumption of processed food, which has potassium removed, combined with a reduction in the consumption of fruits and vegetables, there has been a large decrease in potassium intake... Much evidence shows that increasing potassium intake has beneficial effects on human health."

The study goes on to explain that the positive effects of increased potassium intake include lowering blood pressure, slowing the progress of renal



disease, and decreasing the risk of kidney stones and osteoporosis. The researchers conclude that "the best way to increase potassium intake is to increase the consumption of fruits and vegetables." (*Physiol Plant* 2008; 133:725-35.)

Potassium Key to Lowering Blood Pressure

Exciting research presented at the American Society of Nephrology's 41st Annual Meeting and Scientific Exposition in Philadelphia, Penn. in November 2008 found that low levels of potassium in the diet may be as important to monitor as high levels of sodium.

"There has been a lot of publicity about lowering salt or sodium in the diet in order to lower blood pressure, but not enough on increasing dietary potassium," comments lead author Susan Hedayati, M.D., of the University of Texas Southwestern Medical Center in Dallas, Texas, and the Dallas VA Medical Center.



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The researchers analyzed data on approximately 3,300 subjects and discovered a strong relationship between potassium levels and blood pressure. “The lower the potassium in the urine, hence the lower the potassium in the diet, the higher the blood pressure,” says Dr. Hedayati. “This effect was even stronger than the effect of sodium on blood pressure.”

The relationship between low potassium and high blood pressure remained significant even when age, race and other cardiovascular risk factors, including high cholesterol, diabetes and smoking, were taken into account.

The researchers “urge efforts to increase the amount of potassium in the diet, as well as lowering sodium.”

“High-potassium foods include fruits such as bananas and citrus fruits and vegetables,” says Dr. Hedayati. “Consuming a larger amount of these foods in the diet may lower blood pressure.”



Potassium and Osteoporosis

Potassium also plays an important role in maintaining bone health. Research-

ers have long established that potassium prevents the excretion of calcium from the body. For instance, a 1993 study called “Potassium Causes Calcium Retention in Healthy Adults” in the *Journal of Nutrition* found that administering potassium to healthy adults reduced their urinary calcium excretion (*J Nutr* 1993;123:1623-6).

And the effects of potassium on calcium retention are not just short term. A report published in the journal *Osteoporosis International* looked at the long-term effects of potassium intake on bone mineral density (BMD) among 266 elderly women. The study found that women with higher levels of potassium had significantly higher BMD after one year and after five years.

The researchers conclude: “Potassium intake shows positive association with bone density in elderly women, suggesting that increasing consumption of food rich in potassium may play a role in osteoporosis prevention.” (*Osteoporos Int* 2008; Epub.)

Good Sources of Potassium — Beyond Bananas

Most fresh fruits and vegetables are good sources of potassium. To up your potassium intake, cut down on processed food and eat lots of fresh produce. To get the most potassium out of your produce, cook it as little as possible. Raw is best, but baking will also

maintain many nutrients. White meats, fish, dried fruits, and nuts are other potassium-rich foods.



We all think of bananas as good sources of potassium, but there are actually many other fruits and vegetables packed with even more potassium. For example, while one banana contains 467.28 milligrams of potassium (13.4 percent daily value), one cup of boiled Swiss chard contains 960.7 milligrams (27.4 percent daily value). Other excellent, and perhaps surprising, sources of potassium include Crimini mushrooms, spinach, baked winter squash, broccoli, celery, molasses, tomato, raisins, carrots, papaya, avocado and beans.

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Adequate Intake for Potassium According to the Food and Nutrition Board of the Institute of Medicine			
Life Stage	Age	Males (mg/day)	Females (mg/day)
Infants	0-6 months	400	400
Infants	7-12 months	700	700
Children	1-3 years	3,000	3,000
Children	4-8 years	3,800	3,800
Children	9-13 years	4,500	4,500
Adolescents	14-18 years	4,700	4,700
Adults	19 years and older	4,700	4,700
Pregnancy	14-50 years	-	4,700
Breast-feeding	14-50 years	-	5,100