Vitamin K Linked to Better Vascular Health, Fewer Varicose Veins

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Varicosis, also known as varicose veins, may be attributable to a lack of vitamin K, according to a new study in the “Journal of Vascular Research.”

Inadequate levels of vitamin K may reduce the activity of the matrix GLA protein (MGP), which in turn has been identified as a key player in the development of varicosis. Since vitamin K is required to activate MGP, it is believed that adequate dietary intake of vitamin K is a prerequisite for the prevention of varicose veins.

There are two main forms of vitamin K:

1. K1 (phylloquinone, aka phytonadione)
2. K2 (menaquinones)

Vitamin K3 is a synthetic variant of the vitamin, which is not recommended for human consumption.

Vitamin K1 is found in green leafy vegetables, including lettuce, broccoli, and spinach, and makes up about 90 percent of the vitamin K in the Western-style diet.

Vitamins K2 include several menaquinones (MK-n, with the n determined by the number of prenyl side chains), such as MK-4 found in meats; MK-7, MK-8, and MK-9 found in fermented food products like cheese and natto.

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Dr. Mercola's Comments:

Varicose veins – those unsightly, painful bulges that appear on the legs when blood pools in the veins – are a reality for between five to 30 percent of the adult population, with women being three times more likely to develop varicosis than men.

How do You Prevent Varicose Veins?

Risk factors for developing varicose veins include:

- Age
- Obesity and/or multiple pregnancies

- Lack of physical activity
- Standing occupations
- Genetic predispositions, and connective tissue abnormalities

The name of the game here is mainly prevention. For example, you may not realize that constantly crossing your legs will contribute to varicose veins. Other major, but easily reversible factors, are lack of walking-type exercises, and constipation.

Your diet is one fundamental source of preventive “medicine.”

Fermented foods, such as natto, typically have the highest concentration of vitamin K found in the human diet, and can provide several milligrams of vitamin K2 daily. This level far exceeds the amount found in dark green vegetables. For example, vitamin K2 concentration after the consumption of natto has been shown to be about 10 times higher than that of vitamin K1 after eating spinach. Unfortunately, most Americans do not eat many fermented foods.

Vitamin K2 is synthesized by intestinal bacteria, and is absorbed from the distal small bowel. Keep in mind that taking antibiotics hampers vitamin K2 absorption.

Vitamin K1 is typically found in dark green leafy vegetables. The following table lists some vegetable sources of vitamin K that you should consider adding to your diet:

Collard Greens	440	Cabbage	145
Spinach	380	Olive Oil	55
Salad Greens	315	Asparagus	60
Kale	270	Okra	40
Broccoli	180	Green Beans	33
Brussels Sprouts	177	Lentils	22

Vitamin K – The Forgotten Vitamin

Vitamin K is a fat-soluble vitamin most well-known for the important role it plays in blood clotting. However, vitamin K is also absolutely essential to build strong bones, as it serves as the biological "glue" that helps plug the calcium into the bone matrix. Some studies have actually shown vitamin K to be equivalent to Fosamax-type osteoporosis drugs.

Vitamin K is vital in heart disease prevention as well, because it helps prevent hardening of the arteries – a common risk factor in coronary artery disease and heart failure.

Other beneficial effects of vitamin K include:

- Helpful against Alzheimer’s disease.
- Topical vitamin K may help to reduce bruising.

- Vitamin K deficiency may interfere with insulin release and blood sugar regulation in ways similar to diabetes.
- May have antioxidant properties.
- Beneficial in the treatment of cancer, including lung- and liver cancer.

Vitamin K is a fat-soluble vitamin. This is important to note, because it means that dietary fat is necessary for the absorption of this vitamin. One easy way to do this is by adding the liquid vitamin K drops I recommend, directly into your fish oil or krill oil. This will ensure that the vitamin K is well-absorbed by your body. Alternatively, you could add it to any other food that contains healthy fat.

Do You Need a Vitamin K Supplement?

The plant-based vitamin K1 (phylloquinone), and the bacterially produced vitamin K2 (menaquinone) are so important that, although I don't typically recommend adding extra supplements to your diet, vitamin K is one of the few supplements you may want to consider, especially if you have (or your family has) a history of osteoporosis or heart disease.

The following conditions may put you at an increased risk of vitamin K deficiency:

- Eating a poor or restricted diet.
- Chron's disease, ulcerative colitis, celiac disease, and other conditions that interfere with nutrient absorption.
- Liver disease that interferes with vitamin K storage.
- Taking drugs such as broad-spectrum antibiotics, cholesterol drugs, and aspirin.

I recommend 3,000 mcg of vitamin K per day. If you are pregnant or nursing, avoid vitamin K supplemental intakes higher than the RDA (65 mcg) unless specifically recommended and monitored by your physician.

If you've experienced stroke, cardiac arrest, or are prone to blood clotting, don't take vitamin K without consulting your physician first.

Related Links:

- **Vitamin K May Help Build Strong Bones**
- **10 Important Facts About Vitamin K That You Need to Know**
- **You Need Vitamin K to Prevent Arterial Plaque & Heart Disease**

Reference website: http://articles.mercola.com/sites/articles/archive/2007/08/27/vitamin-k-linked-to-fewer-varicose-veins-better-vascular-health.aspx