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## **Health Options**

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## Multivitamin takers may miss vitamin K

MANY PEOPLE take a multivitamin supplement to make up for a lack of vegetables in their diet. Taking a daily multivitamin does provide some of the essential nutrients in vegetables, but not the fiber and all the phytochemicals.

Also, many multivitamins don't contain vitamin K. Since green vegetables are the main source of vitamin K in most people's diets, relying on a multivitamin to substitute for vegetables can leave a serious nutritional gap.

**Question**: What are the health benefits of vitamin K?

**Answer**: The best understood function of vitamin K is its essential role in blood coagulation. When someone is deficient in vitamin K, the blood does not clot as rapidly and effectively as it should.

Vitamin K also is necessary for the formation of a special

protein in bones that binds to calcium and prevents excess calcium loss. Consequently, low vitamin K intake increases the risk of developing osteoporosis.

In addition, the health of arteries depends on getting adequate vitamin K. Plaque that can accumulate in arteries and subsequently play a role in the development of cardiovascular disease often contains calcium. Vitamin K helps to prevent calcium accumulation and may cut the risk of cardiovascular disease.

**Q**: How much vitamin K does a person need?

A: The current "Adequate Intake" recommendation for vitamin K is 90 micrograms per day for women and 120 micrograms for men. However, these recommendations are controversial. Many vitamin K researchers suggest that greater amounts are needed for optimal health and

are studying doses in excess of ten times the adequate intake.

Dark green leafy vegetables typically provide between 100 and 500 micrograms of vitamin K per half-cup serving. Multivitamins that contain vitamin K typically have 20 to 80 micrograms. But, there is evidence that the vitamin is absorbed from supplements five to 10 times more efficiently than it is from green vegetables.

**Q**: Can a person get too much vitamin **K**?

A: Except for those taking an anticoagulant ("blood thinner") type of drug, vitamin K is considered to have very low toxicity and no upper limit has been established. For those taking a blood thinner, any change in vitamin-K intake requires working closely with their physician to adjust the drug dosage since vitamin K counteracts the drug's function.

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