

Those of you who are old enough may remember the famous Rodney Dangerfield quote "I get no respect". Well **Vitamin K can be considered the Rodney Dangerfield of vitamins.**

**We all know that vitamin K is required for blood clotting, but for most people the only time they hear about vitamin K is when they have been told to avoid vitamin K because they are taking blood thinning medications.**

In fact, vitamin K does a number of important things for us that we usually don't hear about. For example, **Vitamin K is required for modification of a protein called osteocalcin that functions in calcium metabolism. Vitamin K is required for proper bone formation and normal calcium metabolism. So it is, perhaps, not surprising that vitamin K deficiency results in both osteoporosis and calcification of the arteries.**

**Vitamin K is also required for modification of a protein that controls cell growth, so deficiencies of vitamin K appeared to increase the risk of cancer.**

And if those functions of vitamin K weren't important enough, a recent study (Ibarrola-Jurado et al, American Journal of Clinical Nutrition, doi: 10.3945/ajcn.111.033498, 2012) suggests that **vitamin K deficiency may also increase the risk of diabetes.**

The scientists conducting this study had previously shown that calcium metabolism played an important role in the ability of insulin to control blood sugar levels, so they did the logical follow-up study to see if vitamin K status correlated with the incidence of type 2 diabetes.

The scientist analyzed blood levels of vitamin K from 1069 men and women with an average age of 67.5 years who were involved in a study of the health benefits of a Mediterranean diet. The subjects in this study were followed for an average of 5.5 years. At the beginning of the study none of them had diabetes. But by the end of the study 131 of the subjects had developed type 2 diabetes.

**When they looked at vitamin K intake at the beginning of the study, the incidence of type 2 diabetes decreased by 17% for every 100 µg per day increase in vitamin K intake.** However, that wasn't the end of the story. Remember that the primary purpose of this study was to determine the health benefits of a Mediterranean diet. The Mediterranean diet contains lots of green leafy vegetables and other good sources of vitamin K, so the subjects consuming the Mediterranean diet actually increased their intake of vitamin K during the study. **And those subjects who increased their vitamin K intake during the study had a 51% decrease in the incidence of type 2 diabetes.**

So it appears that reducing the risk of diabetes may be one more reason why vitamin K should get more respect.

Of course, you may have heard that most of us get all of the vitamin K that we need. However, another recent study suggests that that might not be true. In that study scientists measured blood levels of osteocalcin that had not been modified by vitamin K. Based on blood levels of unmodified osteocalcin the scientist concluded that **the majority of healthy individuals may have sub-clinical deficiencies of vitamin K.**

So what is the bottom line for you?

It is clear that vitamin K plays many important roles in the body. It is just as essential as the other vitamins and minerals and should command more respect from those of you who are aspiring to achieve optimal health. **The best dietary sources of vitamin K are green leafy vegetables and the cruciferous vegetables such as broccoli, cauliflower, Brussels sprouts and cabbage. And if those aren't your favorite foods, you should make sure that your supplement contains vitamin K.**

**The bad news is that most of us are borderline deficient in vitamin K. The good news is we don't need mega-doses, we just need to assure that were getting RDA levels of vitamin K.**

To Your Health!  
Dr. Stephen G Chaney