



RARE VITAMIN K2 MAKES OMEGA+++ FORMULA UNIQUE



Vitamin K2 is important because it helps in the formation of several factors that help prevent over-mineralization of calcium and phosphorous in the blood, as well as tissues of the body such as the blood vessels and arteries. Although we know that both calcium and phosphorous are important minerals to bone health, they must be in proper concentrations and be able to be dissolved to be delivered to the bones. The activity of muscles, bone growth and redepositing of minerals into the bone depend on these minerals.¹

The beating heart is like an electrical battery that needs these minerals to charge the muscle of the heart. However, like all chemical reactions, it is important that there is enough of a good thing, but not too much.

In the case of calcium and phosphorous, if they are not dissolved they can crystallize within the blood vessels and tissues—this is referred to as calcification.¹ In humans and vertebrate animals, the body fluids that lie between the cells are “supersaturated” with respect to calcium

and phosphate. This means that there is too much calcium and phosphorous in the body that cannot remain dissolved, unless certain vitamin K-dependent factors are present to help pull out and redistribute the minerals. If these minerals do not remain free-floating, they clump together forming salt crystals in the tissues of the body and the blood vessels.¹

WHAT IS SUPER SATURATION? HOW DOES IT LEAD TO CRYSTALLIZATION OF CALCIUM IN THE VESSELS?

Think of super saturation and crystallization in comparison to adding salt to a glass of water. You can add several teaspoons of salt to the water, stir it vigorously and the salt dissolves. But if you keep adding more and more salt, the water will become saturated with salt and no longer stay dissolved. Once again, you will see the crystals of salt undissolved in the glass of water.

This is what happens to tissues in the body. The mineral crystals become hard and can wound or damage your blood vessels. The crystals actually form in the middle of the vessel or arterial wall and create the wound. When there is a small wound in a blood vessel, that area becomes weak. If the circulation becomes strained by high blood pressure and weakened blood vessels, often due to diabetes, there is stronger likelihood of this small wound creating a larger hole in the blood vessels.



The body tries to compensate and overcome this issue of mineral crystallization by making small circulating factors (made of protein) that help carry away the minerals. These proteins are potent inhibitors of this crystallization process, and are therefore essential for survival. They need vitamin K1 and K2 in order to do the job of removing the minerals.

FACTORS THAT INHIBIT HARMFUL CALCIFICATION IN BLOOD VESSELS NEED VITAMIN K1 AND K2

Protein factors requiring vitamin K1 and K2 that inhibit calcium crystallization are synthesized in the tissues in which they exert their function.² These have been identified in:

1. Bones
2. Cartilage
3. Vascular smooth muscle (composes the wall of blood vessels)
4. Arterial walls responsible for elasticity
5. Kidneys
6. Liver

FACTS ABOUT VITAMIN K1 AND K2:

- Naturally occurring forms of vitamin K include K1 (phylloquinone) and a family of vitamin K2 molecules called menaquinones.
- Vitamin Ks are essential cofactors needed by proteins involved in blood coagulation, bone metabolism, prevention of vessel mineralization and regulation of various cellular functions.
- Vitamin K deficiency increases the risk of excessive bleeding (hemorrhage). An injection of vitamin K is recommended to protect all newborns after birth from life-threatening bleeding within the skull.
- The adequate intake (AI) level for vitamin K is set at 90 microgram/day for women and 120 microgram/day for men.
- Vitamin K2 deficiency—which is common—may impair reactions that prevent calcium deposits in vessels and increase risk of bone loss.
- The effects of supplemental vitamin K are being scientifically studied for cardiovascular health and several large studies have shown its support to heart health.



OMEGA+++ IS YOUR BEST SOURCE OF HIGH-QUALITY VITAMIN K2

The LifePharm OMEGA+++ supplement contains omega-3, omega-6 and omega-9 fatty acids shown to be highly supportive to helping restore good cholesterol levels and lower bad cholesterol. For several decades, the scientific studies have shown support for good circulation and heart health. To enhance the OMEGA+++ formula, vitamin K2 was added as another level to support heart health. It assists vessels by removing excess calcium and phosphorous from the smooth muscles that make up the blood vessels and arteries. Excess calcium and phosphorous in these areas of the body could lead to rupture causing aneurisms in the heart, brain, kidney and lower abdominal organs. Vitamin K1 is fairly easily obtained in the diet (green leafy vegetables and oils), but vitamin K2 is primarily only found in some fermented foods; especially natto, a fermented soybean extract or animal liver. Natto has been added to OMEGA+++ formula as the best source of vitamin K2 to assure proper levels of vitamin K2 are being maintained in your diet.



These statements have not been evaluated by the Food and Drug Administration. This product is not intended to diagnose, treat, cure or prevent any disease.

REFERENCES

1. M. Kyla Shea and Rachel M. Holden. Vitamin K Status and Vascular Calcification: Evidence from Observational and Clinical Studies. March 2012 Adv Nutr vol. 3: 158-165, 2012
2. Linus Pauling Institute, Micronutrient Information Center, Oregon State University.