MegaQuinone K2 and facts about Vitamin K1 and K2

- Vitamin K1 is a fat soluble vitamin, it is essential for the activation of proteins, helps blood clotting and is stored in the liver and fat.
- K1 can be found in leafy green foods, broccoli, spinach, cabbage and the gut bacteria produce K1.

- Apparently vitamin K1 deficiency is rare, but I question this since so many people suffer from digestive problems, lack of digestive enzymes, imbalance of the good and bad gut bacteria, constipation, diarrhea, take antibiotics which kill the good and the bad gut bacteria.

- Vitamin K2 menaquinone is an extra hepatic vitamin and found in every tissue in the body with the highest concentration in the brain.
- Unfortunately it is found in foods we rarely eat such as fermented cheeses and natto which is eaten by Eastern Japanese. Grass fed butter and organ meats contain some vitamin K2 but not enough to have a therapeutic effect.
- A preliminary study done by Kulkarni VK*, Upase DP*, Dound YA** and others showed that vitamin K2 helps reduce peripheral neuropathy in diabetes mellitus.

- Vitamin K2 leads calcium out of the soft tissue and helps with bone formation. In other words a vitamin K2 deficiency will lead to soft tissue calcification and coronary artery calcification.

- Bacillus bacteria in the gut make high levels of K2 but not enough to have a therapeutic effect since most of it is used up in the gut. The bacteria produce K2-7 for electron transport chains in the ATP production right inside the bacterial cells.

- A study at the university in north Texas showed that vitamin K2 can increase cardiac output by up to 15%. In practical terms, it increases the amount of oxygen pumped through the body by up to 15%.
- Of course the increase in oxygen effects directly the heart muscle itself in a positive manner.
This study showed that supplementing with vitamin K2 for 8 weeks has the effect of 6 months of intense exercise training for athletes in regard to oxygenation and cardiovascular benefit.

- Vitamin K2 is very active and sensitive to moisture, light exposure and needs to be mixed with other ions such as calcium. Manufacturing processes usually degrades the activity of K2 fast.
- If you take vitamin K2 but you are deficient in K1, the liver keeps part of K2 which then doesn't go into body tissues.

- Vitamin D causes osteoplastic cells to release osteocalcin which needs vitamin K2 as a cofactor.
- Children need vitamin K2 even more so than adults because their bone turnover rate is 8x higher than in adults.

**MegaQuinone**

- guaranties the potency of vitamin K2 in the product.
- Latest study showed that a dose of 320mcg needed for optimal therapeutic effect.
- Contains K1 as well be a lot of people are deficient
- contains cofactors Magnesium, Zinc, Boron. The latter in bioavailable form from fruit and conjugated with proteins.
- Contain 320 mcg which is determined an optimal dose in clinical studies.
- 97 % of proteins who are dependent on K2 get activated.
- There is no buildup of K2 in the body.
- Kiran Krishnan worked with vitamin K2 for the last 10 years.

Before you take vitamin K2 talk to your physician, especially if you are on certain types of medication.
References:
The effect of vitamin K2-7 in peripheral neuropathy due to Vitamin B12 deficiency and/or diabetes mellitus: A Preliminary Study

http://advances.nutrition.org/content/3/2/149.full