

## Press release October 6, 2013

A major review study released in the June 2012 issue of the Heart Journal concluded that taking calcium supplements alone or not in the proper balance could actually double your risk of having a heart attack.<sup>i</sup> The main concern is the fact that when calcium is taken alone or not balanced with other important nutrients that calcium may be deposited in your arteries instead of just in your bones. This leads to an increased risk of having a heart attack. This has certainly created a significant concern among the medical community because physicians have been strongly recommending calcium supplementation to their patients for several decades.

Now it is important to remember that calcium is critical in nearly 180 different chemical reactions within the body. It has been determined that nearly 80% of adults and 40% of children are deficient in calcium in the US and China. Calcium is not only critical for healthy bones, but also for normal nerve conduction, and for the normal rhythm of your heart. It is also very important for contraction and relaxation of your muscles and arteries. Therefore, supplementing calcium is still very important for your health but how can you supplement calcium safely?

First of all, clinical studies are showing us that you should never supplement calcium alone. Also you should always be supplementing calcium along with magnesium. 80% of the both adults and children in the US and China are deficient in magnesium. Having proper levels of magnesium in our bodies is critical for bone growth, heart function, muscle function, and general health. Exposure to excess amounts of calcium over time, without adequate magnesium sets the stage for hardening of your arteries. In other words, magnesium actually protects your arteries.<sup>ii</sup> Clinical studies are now showing that magnesium needs to be balanced with calcium supplementation in a 1:1 ratio. In other words, you need to be taking highly absorbable calcium and magnesium in the same amount in your supplements.

Second of all, you need to realize that you are not able to absorb any calcium no matter how much you are supplementing if your vitamin D levels are low. Vitamin D is necessary for absorption of calcium in the GI tract. The most active form of vitamin D is vitamin D3. Nearly 90% of the population is deficient in vitamin D. Having proper vitamin D levels is critical for our health. Those individuals who have the highest level of vitamin D decrease their risk of almost all cancers by 80%, decrease their risk of developing diabetes by 50%, as well as decreasing their risk of developing MS, heart failure, or having a stroke.<sup>iii</sup> In order to insure you have adequate levels of vitamin D, we recommend supplementing your diet with somewhere between 2,000 and 4,000 IU of vitamin D3 daily.

However the most critical nutrient needed to assure you that your calcium supplement is deposited in your bones and not your arteries is vitamin K2. Vitamin K2 acts like a traffic cop that allows the calcium to be deposited in your bone as it also blocks calcium from being deposited in your arteries.<sup>iv v</sup> Published data about the ability of vitamin K2 to protect against cardiovascular disease is compelling. For instance, people with higher intake of vitamin K2 have a 57% reduction in the risk of dying from a heart attack.<sup>vi</sup> Now this property is unique to only vitamin K2. Vitamin K1 does not have this ability and is not able to accomplish this critical task. Therefore, you want to be sure that your calcium supplement contains vitamin K2 and not vitamin K1.

Finally, it is critical that your calcium and magnesium supplementation contains the highest absorbable calcium and magnesium. Research has shown that the most absorbable calcium is calcium citrate and calcium malate. Calcium carbonate is the cheapest and is poorly absorbed because it is dependent on the acid content of your stomach. Since acid production decreases as we age, calcium carbonate gets harder and harder to absorb when we need it the most. In fact, studies show that we are only able to absorb about 50% of the calcium carbonate. In contrast, calcium citrate and calcium malate are not dependent on stomach acid for their absorption.

Magnesium amino acid chelate, magnesium taurinate, and magnesium glycinate are the highest absorbable magnesium in the marketplace today. It is sad to see that most magnesium supplements contain magnesium oxide, which clinical studies show is only 4% is absorbed. So if you are trying to achieve a balance of calcium and magnesium in your supplements, you not only need to look at the amount you are getting but what kinds of calcium is in your supplement and are they being absorbed. One of the greatest dangers in taking calcium/magnesium supplements is to being fooled that you are getting a balanced product. If your calcium/magnesium supplement contains magnesium oxide, it is essentially like taking a calcium supplement alone. You want to be consuming a calcium/magnesium product that has been developed based on this cutting-edge medical research so that you receive the positive health benefits they offer and yet avoid the potential negative consequences of taking calcium supplements.

Bone is viable living tissue that is continually being formed and broken down. This process relies heavily on various minerals in order to build strong, healthy bone. This revolutionary state-of-the-art product contains the most potent form of Inland Sea Trace Minerals. The best source of these trace minerals actually come from the Great Salt Lake of Utah. Bone growth is also optimized when you have adequate levels of vitamin C. Acerola cherry has been added to this product because it contains the most potent form of vitamin C found today. Shitake mushrooms have several general health benefits; however, in regards to bone health they contain high levels of zinc and copper that are critical for bone growth and development. Reishi mushrooms have been shown to actually maintain the bone growth you create. Therefore, it was felt that these mushrooms would be excellent additions to this breakthrough product. It will come available in The Netherlands October 14<sup>th</sup> 2013.

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<sup>i</sup> Li K, Kaaks R, et al. Associations of dietary calcium intake and calcium supplementation with myocardial infarction and stroke risk and overall cardiovascular mortality in the Heidelberg cohort of the European Prospective Investigation into Cancer and Nutrition study. *Heart*. 2012 Jun;98(12):920-5

<sup>ii</sup> Chakraborti S, Chakraborti T, et al. Protective role of magnesium in cardiovascular diseases: a review. *Mol Cell Biochem*. 2002 Sep;238(1-2):163-79.

<sup>iii</sup> A major review article on the Health Benefits of supplemental vitamin was reported in the July 19, 2007 issue of *New England Journal of Medicine*.

<sup>iv</sup> Schurgers LJ, Dissel PE, et al. The role of vitamin K and vitamin k-dependent proteins in vascular calcification. *Z Kardiol*. 2001 90 (suppl):357-63

<sup>v</sup> Amizuka N, Li M, et al. Biological effects of vitamin K2 on bone quality. *Clin Calcium*. 2009 Dec;19(12):1788-96

<sup>vi</sup> Geleijnse JM, Vermeer C, et al. Dietary intake of menaquinone (vitamin K2) is associated with a reduced risk of coronary artery disease: the Rotterdam Study. *J Nutr* 2004 Nov;134(11):3100-5