Calcium supplements versus myocardial infarction: What you need to know

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Recently, researchers at the University of Auckland in New Zealand released a study that shows that osteoporosis patients who take calcium supplements to combat the disease have a higher risk of myocardial infarction, what is commonly known as a heart attack.

The study showed that men and women who took calcium supplements were 30 percent more likely to suffer myocardial infarction.

Ian Reid, MD and colleagues analyzed data from more than a dozen prior studies, including clinical trials and epidemiological research. Both types of studies led to the same result: taking calcium supplements raises risk of myocardial infarction by 30 percent.

A total of 11,921 participants were followed for an average four years. None of them took vitamin D along with calcium supplements.

The current study confirmed previous studies have also shown: excessive intake of calcium can be a significant risk factor for cardiovascular disease.

Myocardial infarction occurs when blood flow to an area of the heart muscle is completely blocked, according to the National Heart Lung and Blood Institute.
The blockage results from coronary artery disease - a condition in which plaque builds up inside the coronary arteries. The plaque consists of fat, cholesterol, calcium and other substances in the blood.

Many food consumers are aware of the controversial idea that cholesterol is a risk factor for cardiovascular disease. They are less likely to know the fact that cholesterol without calcium doesn't harden.

And cholesterol accounts for about 3 percent of the plaque that blocks cardiac arteries, eventually leading to heart attack; calcium accounts for about 50 percent of the plaque.

Bill Sardi, a medical journalist, published an article citing websites that demonstrate that excessive calcium, but not cholesterol, is the major risk factor for heart disease.

Medical professionals have known for many years that calcification is the process that leads to narrowing of cardiac arteries.

Dr. Arthur Agaston, a Florida cardiologist, actually developed a severity scoring sheet to measure the severity of calcifications of arteries in patients with arteriosclerosis and coronary artery disease, known as the Agaston Score.

In 2006, a study which consisted of an analysis of first-time heart attack survivors showed that 148 patients had an average Agatston Score of 589, which is high. It also revealed that 95 percent of the patients suffered coronary calcifications, compared to merely 53 percent of adults who had experienced no myocardial infarction or other cardiovascular symptoms. Other studies confirmed the same observation.

Dr. Harumi Akuyama of Nagoya City University in Japan was cited by Mr. Sardi as stating that high cholesterol is not positively linked with high coronary heart disease mortality among those aged 40 to 50 years of age. Dr. Akuyama’s study was published in the journal World Review of Nutrition and Diabetes.

Dr. Akuyaman notes that at the same level of cholesterol, the rate of heart attacks can vary by a factor of 4 to 8-fold in some populations and that no benefit results from efforts to limit dietary cholesterol intake or to total cholesterol to less than about 260 mg/dL.

Dr. Stephen Seely who published his treatise in 1991 in the International Journal of Cardiology, wrote that excess calcium intake is the major cause of atherosclerosis in Western countries.

Dr. Seely pointed out that young adults only need 300 to 400 mg of calcium each day and, surprisingly, older adults need even less. In countries where people only have an average intake of 200 to 300 mg a day, arterial disease does not exist.

In comparison, Dr. Seely noted that Americans have an average intake of 800 mg of calcium per day; it's no coincidence that heart disease is the leading killer in the country. Both calcium supplements and
a high consumption of milk and milk products may contribute to the problem.

What could food consumers do to prevent or reserve cardiovascular disease or events like myocardial infarction? The simple answer is that one needs to cut intake of calcium.

Now foodconsumer.org reported earlier that "High concentrations of calcium are found in both animal-based foods such as milk, yogurt and cheddar cheese and plant-based foods such as pinto beans, red beans, white beans, tofu, bok choy, kale, Chinese cabbage, broccoli, rhubarb and spinach." So those who are really in need of calcium can increase their intake of these foods; doing so will eliminate the need for calcium supplements. Reducing intake of these foods essentially lowers intake of calcium; this can further reduce risk of cardiovascular disease including myocardial infarction.

It should be noted that although the vegetables and seeds contain high levels of calcium, they contain some calcium blockers; in other words, calcium from plant-based foods is not as easily absorbed; this radically reduces the risk of over consumption.

Milk and other dairy products can serve as a source of calcium. If a person simply can't cut back on consumption of these animal based foods, eating lots of green leafy vegetables should be considered.

Dr. Dean Ornish, a professor at the University of California in San Francisco, uses a dietary program to help his patients to prevent or reverse the progression of atherosclerosis. The efficacy is said to be 99 percent.

Other preventive measures against calcium induced heart disease include getting adequate vitamin D, IP6 phytate from rice bran extract, vitamin K, magnesium and vitamin C.

Vitamin K and vitamin C are present in leafy green vegetables. Magnesium is found in spinach, nuts and pumpkin seeds.

To sum it all up, although taking calcium supplements boosts myocardial infarction risk, eating lots of green leafy vegetables and exposure to lots of sunshine can help mitigate that risk.

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