

## Calcium as a supplement – Is it safe?

Is taking a calcium supplement safe? This question has been raised recently in an interview with a researcher, Dr. Reid on National Radio. It sparked concern about the possible link between calcium supplement use and a possible increased incidence of heart attack. As a result of this interview, I have had a number of concerned people contact me. This is an issue that I believe warrants discussion because there is more to it than first meets the eye.

For those of you who missed the interview but may have heard some of the fallout, it has been claimed by Dr. Reid that taking 500mg per day of calcium in supplemental form will increase the risk of a heart attack by 30%. Not long after the interview, there were reports of calcium supplements being banned by Medsafe, and these two things have caused understandable concern and confusion.

Medsafe group manager Stewart Jessamine has since stated that because the studies surveyed were not designed to measure a link between calcium and heart disease, more proof would be necessary before restrictions could be placed on the supplements' availability. This is good news and a sign that the voice of reason still exists!

As far as the rest of it goes, I would like to point out that calcium (or any nutrient for that matter) should not increase the risk of heart attack if it is taken in the correct dose and with all of the accompanying minerals and vitamins necessary to enable the body to metabolise it correctly.

Researchers said that they could find no risk with diets high in calcium. This brings us to an important point; the key difference between a diet high in calcium and a calcium supplement is that the diet would supply both calcium and the other nutrients required to metabolise it, whereas a calcium supplement (unless well balanced with its supporting nutrients) would not. This could affect the way the calcium was taken up and distributed through the body.

However, the chances of most people having a diet with adequate calcium levels in it is remote, and here is why. Research in the UK and US show that the availability of calcium in our foods supply has dropped by 37% in the past 50 years. This is in both vegetable foods and protein foods and can in part be attributed to the wide spread use of NPK (nitrogen, potassium, phosphorous) fertilisers. Phosphorous binds calcium and limits its uptake from the soil, affecting the content of calcium in vegetables, fruits and animals grown on land with a history of NPK use. In addition to this, most people do not eat enough vegetables to gain adequate calcium from this source, and do not recognize that vegetables are in fact the best source of it in spite of the lowered levels present today.

Dairy food has long been touted as the answer to lifting dietary calcium. However, dairy foods tend to be naturally high in phosphorous, a limiting factor in the ability of the body to use the calcium in these foods and probably a major reason why the countries with the highest dairy intake often have the highest osteoporosis statistics. The irony is that dietary phosphorous will form phosphoric acid, which then necessitates the body to use more calcium in order to buffer its effects. In the face of a calcium deficiency in the diet, the body will draw on the calcium reserves in the bones and teeth, eventually leading to a weakening of these tissues.

In the clinic, one of our main concerns is the pH balance (acidity) of the body because this greatly affects cell function. I have learnt through experience that one of the most critical factors for wellness is the pH of the body, and one of the most important nutrients for balancing the pH of the body is calcium. However, it is not a simple matter of slapping in any old calcium supplement. The rest of the person's nutritional profile needs to be factored in and we now use a testing technique to determine what is required for each person to correct any imbalances in pH.

Interestingly, the researchers said they had excluded any studies that compared supplements containing both calcium and vitamin D with placebo or calcium given on its own, acknowledging that their findings may not be applicable to calcium supplements which contained other supporting nutrients. This again points to the likelihood that issue in Dr. Reid's study lay not with the calcium, but rather the fact that it was given in isolation. I also found it interesting to note that the study Dr. Reid refers to focuses on patients aged over 70 - a group more at risk of heart attacks than the general population. The major users of calcium in New Zealand tend to be women under the age of 50, who are pregnant,

breastfeeding or who want to increase bone density. There has been no recorded increase in heart attack risk in these groups.

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