

Calcium May Increase Heart Attack Risk

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July 29, 2010 -- Millions of people who take [calcium](#) supplements in hopes of lowering their risk for bone [fractures](#) may actually be increasing their risk of having a [heart attack](#), new research suggests.

An analysis of close to a dozen clinical trials involving about 12,000 patients found calcium supplementation to be associated with a 20% to 30% increase in heart attack risk.

Researcher Ian Reid, MD, of New Zealand's University of Auckland says it is time to reassess the role of calcium supplementation for the treatment and [prevention of osteoporosis](#).

"I think we need to seriously consider whether calcium supplementation is a good thing for most people, given that it is associated with a very small decrease in fracture risk," he tells WebMD.

Calcium, Heart Attack Findings

Just over two years ago, Reid's own research unexpectedly showed a slight increase in heart attacks among healthy, older women who took calcium supplements to prevent fractures.

"Our hypothesis when we started the study was that calcium would protect the heart," he says.

In an effort to confirm the earlier findings, Reid and colleagues from the University of Aberdeen in the U.K. and Dartmouth University in the U.S. combined and analyzed the findings from 11 randomized trials in which participants took calcium supplements (500 milligrams or more per day) without vitamin D.

After adjusting for differences in study design, the researchers concluded that calcium supplementation was associated with a modest increase in risk for heart attacks, but not for strokes or death from [heart disease](#).

Reid speculates that calcium supplements may rapidly elevate [blood](#) calcium levels,

which could contribute to artery disease.

Calcium from food sources is absorbed much more slowly, he says.

The study appears today in the journal *BMJ Online First*.

“We encourage our patients to get their calcium from the foods they eat and not from supplements,” he says.

Calcium-Bone Link ‘Weak’

In an interview with WebMD, cardiologist John Cleland of the U.K.’s Hull York Medical School called the analysis “concerning but not convincing” in linking calcium supplementation to heart attacks.

“Heart attacks are serious business, so you would expect to see an increase in mortality in supplement users along with heart attacks,” he says. “The fact that this wasn’t seen makes me wonder if this intervention is changing the perception rather than the reality of this outcome.”

But Cleland says the evidence that calcium or calcium with vitamin D protects against bone fracture is also far from convincing.

In an editorial published with the study, Cleland and colleagues write that calcium supplements alone do not prevent fractures and may even slightly increase fracture risk.

“Given the uncertain benefits of calcium supplements, any level of (heart) risk is unwarranted,” they conclude.

Cleland says people with osteoporosis should be taking [medications](#), not supplements, to treat the disease.

Cardiologist Nieca Goldberg, MD, who directs the NYU Women’s Heart Program, recommends calcium supplements only to patients who don’t get much calcium in their diets.

“If they are eating a lot of low-fat dairy products or other foods with calcium, they may not need much supplementation,” she says. “People don’t always realize how much calcium they are getting in their diets.”

Goldberg, who is a spokeswoman for the American Heart Association, echoes Cleland’s concerns about the newly published analysis.

“It is hard to understand how calcium could increase the risk for heart attack and not for [stroke](#) or death if this association is real,” she says.