

DOES ORAL CALCIUM SUPPLEMENTATION INCREASE
THE RISK OF CARDIOVASCULAR EVENTS

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ABSTRACT

Osteoporosis is a growing concern in this day and age as people worldwide are getting more aware of its pathophysiology and preventive methods and also because the general world population is an aging one with improvement of infrastructure and medical facilities. There have been mixed perceptions regarding the detrimental effects of a 'blanket' trend of calcium supplementation for many middle aged adults onwards especially post-menopausal women. Calcium supplements marginally reduce the risk of fracture, and most guidelines recommend adequate calcium intake as an integral part of the prevention or treatment of osteoporosis. Observational studies suggest that high calcium intake might protect against vascular disease, and the findings are consistent with those of interventional studies of calcium supplements that show improvement in some vascular risk factors such as increase in circulating HDL-C and decrease in LDL-C, reduced visceral adipose tissue accumulation, transient reductions in blood pressure, and an increased rate of weight loss in obese patients. However, in contrast, calcium supplements accelerate vascular calcification and increase mortality in patients with renal failure, in both dialysis and predialysis populations. Furthermore, a five year randomised controlled trial of calcium supplements in healthy older women, recently reported possible increases in rates of myocardial infarction and cardiovascular events in women allocated to calcium. The overall conclusion drawn seems to point to an adverse effect of oral Calcium supplementation over the long run in the occurrence of cardiovascular events namely myocardial infarction and cerebrovascular accident. This seems to be particularly significant in the post-menopausal group, and patients with renal complications. It is however stressed that more comprehensive studies and reviews have to be conducted to come to concrete conclusion to be able to project onto policies of management in regards to osteoporosis and its prevention.