

Increasing calcium intake unlikely to boost bone health or prevent fractures, say experts

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Increasing calcium intake through dietary sources or supplements is unlikely to improve bone health or prevent fractures in older people, conclude two studies published in *The BMJ* this week.

Collectively, these results suggest that increasing calcium intake, through supplements or dietary sources, should not be recommended for fracture prevention.

Guidelines advise older men and women to take at least 1000-1200 mg/day of calcium to improve [bone density](#) and prevent fractures, and many people take [calcium supplements](#) to meet these recommendations. Recent concerns about the safety of calcium supplements have led experts to recommend increasing calcium intake through food rather than by taking supplements, but the effect on [bone health](#) is unknown.

So a team of researchers in New Zealand set out to examine the evidence underpinning recommendations to increase calcium intake from dietary sources or supplements to improve bone health and prevent fractures.

They analysed the available evidence from [randomised controlled trials](#) and observational studies of extra dietary or supplemental calcium in women and men aged over 50. Study design and quality were taken into account to minimise bias.

In the first study, they found that increasing calcium intake from dietary sources or by taking supplements produces small (1-2%) increases in bone mineral density, which "are unlikely to lead to a clinically meaningful reduction in risk of fracture."

In the second study, they found that dietary calcium intake is not associated with risk of fracture, and there is no clinical trial evidence that increasing calcium intake from dietary sources

prevents fractures.

It is time to revisit recommendations to increase [calcium intake](#) beyond a normal balanced diet, argues Professor Karl Michaëlsson from Uppsala University in Sweden, in an accompanying editorial.

He points out that ever increasing intakes of calcium and vitamin D recommended by some guidelines defines virtually the whole population aged over 50 at risk. Yet most will not benefit from increasing their intakes, he warns, and will be exposed instead to a higher risk of adverse events.

"The weight of evidence against such mass medication of older people is now compelling, and it is surely time to reconsider these controversial recommendations," he concludes.

More information: Calcium intake and risk of fracture: systematic review, www.bmj.com/cgi/doi/10.1136/bmj.h4580

Calcium intake and bone mineral density: systematic review and meta-analysis, www.bmj.com/cgi/doi/10.1136/bmj.h4183

Editorial: Calcium supplements do not prevent fractures, www.bmj.com/cgi/doi/10.1136/bmj.h4825

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