

Calcium supplementation does not increase coronary heart disease concludes new study

April 5 2014

Researchers presenting at the World Congress on Osteoporosis, Osteoarthritis and Musculoskeletal Diseases showed the results of a meta-analysis of randomized controlled trials of calcium supplements. The results do not support the hypothesis that calcium supplementation, with or without vitamin D, increases coronary heart disease or all-cause mortality risk in elderly women.

The results of a study presented today at the World Congress on Osteoporosis, Osteoarthritis and Musculoskeletal Diseases do not support the hypothesis that calcium supplementation, with or without vitamin D, increases coronary heart disease or all-cause mortality risk in elderly women.

The investigators, from centres in Australia, Denmark and the USA, undertook a meta-analysis of randomized controlled trials of [calcium supplements](#) with or without vitamin D. They searched for two primary outcomes: coronary heart disease and all-cause mortality verified by clinical review, hospital record or death certificate. The Cochrane Central Register of Controlled Trials, MEDLINE, and EMBASE databases were searched from January 1, 1966 – May 24, 2013 for potentially eligible studies, reference lists were checked, and trial investigators were contacted where additional data was required. Eligibility criteria included [randomized controlled trials](#) of calcium supplementation with or without vitamin D with events with a mean cohort age >50 years. Trial data were combined using a random-effects meta-analysis to calculate relative risk of heart disease events in

participants supplemented with calcium.

Of the 661 potentially eligible reports, 18 met the stringent inclusion criteria, contributing information on 63,564 participants with 3,390 coronary heart disease events and 4,157 deaths from any cause. Five trials contributed coronary heart disease events with pooled relative risk (RR) for calcium of 1.02. And 17 trials contributed to all-cause mortality data with pooled RR for calcium of 0.96. The meta-analysis showed that [calcium supplementation](#) with or without vitamin D does not increase [coronary heart disease](#) or all-cause mortality risk in [elderly women](#).

More information: OC34 The effects of calcium supplementation on coronary heart disease hospitalisation and death in postmenopausal women: a collaborative meta-analysis of randomised controlled trials. J. R. Lewis, K. L. Ivey, S. Radavelli-Bagatini, L. Rejnmark, J. S. Chen, J. M. Simpson, J. M. Lappe, L. Mosekilde, R. L. Prentice, R. L. Prince. *Osteoporos Int.* Vol 25, Suppl. 2, 2014

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