

A 7-year longitudinal trial of the safety and efficacy of a calcium supplement used to enhance bone mineral density

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A recent study from the *Journal of the American College of Nutrition* (JACN), examines the safety and efficacy of a vitamin/mineral enhanced plant-sourced calcium supplement [AlgaeCal (AC)] in female consumers who had taken the supplement from 1 to 7 years. The article "A 7-Year Longitudinal Trial of the Safety and Efficacy of a Vitamin/Mineral Enhanced Plant-Sourced Calcium Supplement" is published in JACN Issue 35(2) 2016, the official publication of the American College of Nutrition.

Consumers who had completed at least one dual-energy x-ray absorptiometry (DEXA) [bone mineral density](#) (BMD) scan (N = 172) and/or [blood chemistry](#) test (N = 30) and purchased AlgaeCal (AC) from 1 to 7 years were contacted and offered complimentary repeat tests. Safety and efficacy were examined by annualized changes in a 45-measurement blood chemistry panel and changes in BMD.

No adverse effects or safety concerns were found in any of the annualized within-group annualized changes in the 45 blood chemistries or in between-group changes in a similar control group (n = 5070) who completed the same measurements. With regard to BMD, consistent and statistically significant within-group increases were found for the 7-year study period and when compared to expected BMD changes in 3 large databases or the combination (N = 25,885) of the 3 databases. Data from this study suggest that AlgaeCal (AC) supplement was associated with a

significant annualized and linear increase in BMD of 1.04% per year, 7.3% over the 7-year study period. These results stand in marked contrast to normative or expected changes of $-0.4\%/y$ from 3 different databases or in a combination of all 3 databases (N = 16,289).

The results showed that no evidence was found in cardiovascular risk as measured by adverse changes in blood lipids, nor was any evidence found of a diminished efficacy over the 7-year study period because gains in BMD were consistent and linear over the 7-year study period, averaging 1.04% per year over the 7-year study.

The results are also consistent with earlier short-term studies suggesting that the AlgaeCal (AC) supplement can facilitate significant increases in total body BMD in contrast to studies suggesting that calcium supplements can only slow down age-related declines in BMD.

More information: Gilbert R. Kaats et al. A 7-Year Longitudinal Trial of the Safety and Efficacy of a Vitamin/Mineral Enhanced Plant-Sourced Calcium Supplement, *Journal of the American College of Nutrition* (2016). [DOI: 10.1080/07315724.2015.1090357](https://doi.org/10.1080/07315724.2015.1090357)

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