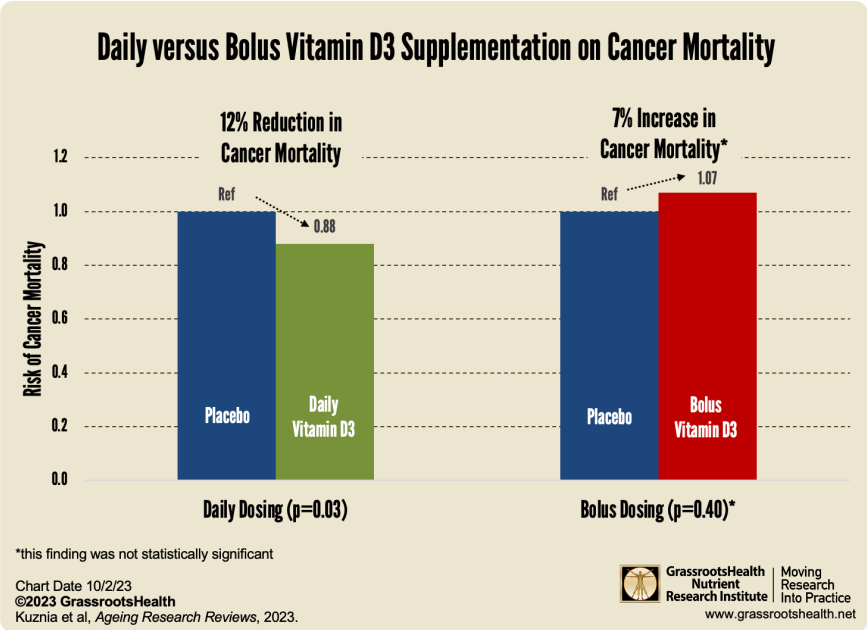
Significant Benefit of Vitamin D Supplementation on Cancer Mortality with Daily Dosing, but Not with Bolus Dosing

Kuznia et al, *Ageing Research Reviews*, 2023.

This systematic review and meta-analysis evaluated the effect of vitamin D supplementation on cancer mortality and prognosis, and included findings from 14 randomized controlled trials (a total of 104,727 participants) with an additional analysis of individual patient data (using data from 94,068 participants).



This study found that

- vitamin D3 supplementation overall (including both daily and bolus dosing) resulted in a 6% reduced risk of cancer mortality, however the finding was not statistically significant
- **daily dosing with vitamin D3 supplementation significantly reduced cancer mortality (versus placebo) by 12%** (p=0.03)
- bolus dosing with vitamin D3 supplements resulted in no reduction in cancer mortality compared to placebo; in fact, **there was an insignificant increase in mortality among those receiving bolus doses**
- **cancer survival improved when daily vitamin D3 supplementation began earlier in the cancer diagnosis or before cancer diagnosis**

Chart Date: 10/2/23

 Kuznia S, Zhu A, Akutsu T, Buring JE, Camargo CA Jr, Cook NR, Chen LJ, Cheng TD, Hantunen S, Lee IM, Manson JE, Neale RE, Scragg R, Shadyab AH, Sha S, Sluyter J, Tuomainen TP, Urashima M, Virtanen JK, Voutilainen A, Wactawski-Wende J, Waterhouse M, Brenner H, Schöttker B. Efficacy of vitamin D3 supplementation on cancer mortality: Systematic review and individual patient data meta-analysis of randomised controlled trials. Ageing Res Rev. June 2023.