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*Best Health Care Medical Group, Inc.*  
**Professor Mike Mirahmadi, M.D.**  
Diplomate, American Board of Internal Medicine & Nephrology  
Clinical Professor of Medicine at UCLA

### Supplemental and Active Forms of Vitamin D Prevent Falls Among Elders

*Daily doses of vitamin D >700 IU were associated with significantly fewer falls.*

Previous findings suggest that vitamin D supplementation improves muscle strength and balance and prevents falls ([JW Gen Med Dec 23 2005](#)). In this meta-analysis, investigators assessed the efficacy of oral supplemental forms of vitamin D (cholecalciferol [vitamin D<sub>3</sub>] and ergocalciferol [vitamin D<sub>2</sub>]) and active forms of vitamin D (e.g., 1,25-dihydroxyvitamin D<sub>3</sub>) in preventing falls among elders (age, ≥65).

Eight randomized controlled trials (2426 total patients; 81% women; mean age, 80) of supplemental forms of vitamin D met inclusion criteria. High-dose supplemental vitamin D (700–1000 IU daily) significantly lowered relative risk for falling (by 19%); however, lower-dose supplemental vitamin D (<700 IU daily) did not. Relative risk for falling was lowered only among patients whose serum 25-hydroxyvitamin D<sub>3</sub> levels exceeded 60 nmol/L with treatment. In addition to the supplemental vitamin D studies, two trials (624 total patients; 70% women; mean age, 73) of active forms of vitamin D met inclusion criteria. Active forms of vitamin D significantly lowered relative risk for falling (by 22%).

**Comment:** Supplemental and active forms of oral vitamin D prevent falls among elders. Supplemental forms of vitamin D are similarly effective and less expensive than active forms. High-dose (700–1000 IU daily) supplemental vitamin D should be recommended for all elders. Notably, previous research suggested that high-dose (but not low-dose) supplemental vitamin D also prevents fractures ([JW Gen Med Jun 3 2005](#)).

— [Paul S. Mueller, MD, MPH, FACP](#)

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