

# Vitamin D deficiency linked to higher mortality in female nursing home residents

March 6 2012

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The majority of institutionalized elderly female patients are vitamin D deficient and there is an inverse association of vitamin D deficiency and mortality, according to a recent study accepted for publication in The Endocrine Society's *Journal of Clinical Endocrinology and Metabolism (JCEM)*.

Recommendations for dietary vitamin D intake in the elderly are higher than any other age group because [vitamin D deficiency](#) is extraordinarily prevalent in this population and is considered a causal risk factor for skeletal diseases. Treatment involves the daily ingestion of up to 800 IU of vitamin D. The current study examined whether vitamin D deficiency is an [independent risk factor](#) for mortality in institutionalized elderly patients.

"Our findings show that the vast majority of nursing home residents are severely vitamin D deficient and those with the lowest vitamin D levels are at high risk of mortality," said Dr. Stefan Pilz, MD, of the Medical University of Graz, Austria, and lead author of the study. "This situation warrants immediate action to prevent and treat vitamin D deficiency."

In this study, researchers examined a sample of 961 nursing [home residents](#) in Austria, with an average age of 83.7 years. The researchers recorded 284 deaths—or 30 percent of the study cohort—after a mean follow-up time of 27 months. Their findings showed that vitamin D levels were below recommended levels in 92.8 percent of the study participants, suggesting that while vitamin D deficiency among frail and

elderly populations has been acknowledged for several decades, no effective strategies to treat the deficiencies have been developed and implemented.

"Vitamin D supplementation in these patients can exert significant benefits on clinically relevant outcomes such as fractures," said Pilz. "In light of our findings, and the existing literature on adverse effects of vitamin D deficiency, there exists now an urgent need for effective strategies to improve vitamin D status in older institutionalized patients."

**More information:** The article, "Low 25-hydroxyvitamin D is associated with increased mortality in female nursing home residents," appears in the April 2012 issue of *JCEM*.

Provided by The Endocrine Society

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