

Alendronate reduces adjacent-level vertebral fractures

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Image courtesy of Blausen Medical

(HealthDay)—For females with osteoporosis, the rate of adjacent-level vertebral fractures is relatively low, with reduced odds with bisphosphonate therapy, according to a study published in the Dec. 1 issue of *Spine*.

Bruce Frankel, M.D., from the Medical University of South Carolina in Charleston, and colleagues examined the risk of adjacent-level [vertebral fractures](#) in patients with osteoporosis using data from a large, randomized fracture intervention trial of alendronate treatment. Incident morphometric fracture rates were assessed for bisphosphonate-treated and bisphosphonate-naive patients (1,950 participants).

During a mean follow-up of 2.9 years, the researchers identified adjacent-level vertebral fractures in 3.4 percent of patients in the alendronate group and 7.4 percent of patients in the placebo group, with annual rates of 1.2 and 2.5 percent, respectively. The thoracolumbar region (T11, T12, and L1) seemed to be the most prone to new adjacent-level fractures. In univariate analysis, [older age](#) at randomization, lower [bone mineral density](#), inactivity, and placebo therapy correlated significantly with adjacent-level fractures ($P < 0.05$). The odds of adjacent-level fractures were decreased with bisphosphonate therapy and higher bone mineral density, and were increased

with older age at randomization, in multivariate analysis ($P < 0.05$).

"New vertebral fractures adjacent to prevalent fractures occurred relatively infrequently in this treatment trial of alendronate in females with [osteoporosis](#), and were more common with older age at randomization, lower [bone mineral density](#) and placebo treatment," the authors write.

Relevant financial activities outside the submitted work were disclosed: consultancy, grants, patents, royalties.

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