

Common osteoporosis drug slows formation of new bone

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Although the drug zoledronic acid slows bone loss in osteoporosis patients, it also boosts levels of a biomarker that stops bone formation, according to a recent study accepted for publication in The Endocrine Society's *Journal of Clinical Endocrinology & Metabolism* (JCEM).

Osteoporosis weakens bones and increases the risk patients will suffer fractures. The findings suggest combination therapy may be a more effective approach to battling this common condition.

"The key to effectively treating osteoporosis lies in increasing bone mass," said the study's lead author, Antonino Catalano, MD, PhD, of the University of Messina in Italy. "[Zoledronic acid](#) halts [bone loss](#), but it also signals the body to stop forming new bone mass. The drug may need to be combined with other treatments to add bone mass."

The prospective intervention study followed the treatment of 40 postmenopausal women at an ambulatory care center. Half of the women received zoledronic acid, and half received a placebo. Levels of sclerostin – a [biomarker](#) that inhibits [bone formation](#) – increased among the participants who were treated with zoledronic acid.

"The data points to an opportunity to increase bone mass by combining zoledronic acid with a drug that suppresses the resulting sclerostin's effect," Catalano said. "An innovative combination therapy using zoledronic acid and selective antibodies to block the sclerostin could simultaneously stop bone loss and encourage new bone formation. This

is an important avenue for researchers to explore as they develop new osteoporosis treatments."

More information: The article, "Zoledronic Acid Acutely Increases Sclerostin Serum Levels in Women with Postmenopausal Osteoporosis," appears in the May 2013 issue of JCEM.

Provided by The Endocrine Society

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