

Calcium Plus Protein Equals Strong Bones: Study

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NEW YORK (Reuters Health) - **Getting enough calcium is essential for building and maintaining healthy bones, but new research suggests that protein may also play an important role in preventing bone loss.**

During a 3-year study of 342 elderly men and women who were taking calcium citrate, malate and vitamin D supplements, investigators found that bone mineral density increased most in people whose diets contained the most protein. Whether protein came from mainly animal or plant sources did not affect the increase in bone density, the researchers report in the *American Journal of Clinical Nutrition*.

"The present study suggests that bone mineral density may be improved by increasing protein intake in many older men and women, as long as they meet the currently recommended intakes of calcium and vitamin D," according to Drs. Bess Dawson-Hughes and Susan S. Harris at Tufts University in Boston, Massachusetts.

"This study identifies another reason to meet the calcium requirement," Dawson-Hughes told Reuters Health. "It may enable your bones to benefit from the protein in your diet."

Dietary protein was linked to increased bone density only in people who were taking supplements. Protein intake did not have a noticeable effect on bones in study participants who were assigned an inactive placebo pill. Additional research is needed to see whether protein improves bone density in older people who get all their calcium and vitamin D from dietary sources, not supplements, Dawson-Hughes and Harris note.

The relationship between protein and bone density is not clear-cut. Some studies have detected a decreased risk of bone loss and fracture in people who consume high levels of protein. But other studies have linked protein consumption to an increased risk of fracture, especially in people who consume high levels of animal protein.

The more protein a person eats, the more calcium is excreted in urine. "Excess protein intake should be bad for bone," Dr. Robert P. Heaney at Creighton University in Omaha, Nebraska, points out in a related editorial.

But the results of the study suggest that concerns about protein intake are "probably unfounded," Heaney told Reuters Health.

"You need both calcium and protein for bone, and if your diet has plenty of both, then your bones are likely to be in better condition than if you are short on one or both of these nutrients," he said.

Heaney added that the study and other recently published research "go a long way toward refuting" concerns that animal protein is bad for bones.