HealthScout

Tea Helps Toughen Older Women's Hips

Those who drink it daily lose less bone, study finds

By Amanda Gardner
HealthDay Reporter

WEDNESDAY, Oct. 10 (HealthDay News) -- New Australian research suggests that having a cuppa (tea, that is) may help strengthen older women's hips.

"This study suggests that drinking tea in moderation can actually benefit your bones," said lead researcher Amanda Devine, a senior lecturer in the nutrition program at the School of Exercise, Biomedical and Health Science, Edith Cowan University, and adjunct senior lecturer at the University of Western Australia's School of Medicine and Pharmacology, in Perth.

"Those who drank tea in the study had a higher bone density over the four years that they were studied," she said. "These women lost less bone than those who did not drink tea. More than three-quarters of the women drank tea daily, and they consumed on average about three cups per day."

Outside experts called the findings intriguing but still preliminary.

"Some tea may be potentially helpful," said Paul Brandt, an associate professor of neuroscience and experimental therapeutics at Texas A&M Health Science Center College of Medicine. "One or two cups of tea a day probably couldn't hurt, but I wouldn't say that it absolutely will help. It's possible that it could prevent some loss."

Prior research has suggested that drinking tea may improve bone mineral density in people at risk for osteoporosis, but the findings are not conclusive. One study found that drinking green tea might help ease the inflammation and pain of rheumatoid arthritis.

Fractures, especially hip fractures associated with osteoporosis, are a major source of disability in postmenopausal women. Osteoporosis causes the bones to become fragile and more likely to break. Although it primarily affects older women, osteoporosis can affect others as well.

The new study, published in the *American Journal of Clinical Nutrition*, involved 1,500 elderly (70 to 85 years old) Australian women who participated in a five-year trial of the effect of calcium supplementation on osteoporotic hip fracture.

Information on tea consumption was collected at the beginning of the study for 275 participants, and all participants filled out a beverage consumption questionnaire at the end of the trial.

Bone mineral density at the hip was measured at years 1 and 5.

By the end of the study, bone mineral density at the hip was 2.8 percent greater in tea drinkers than in non-tea drinkers, the researchers found.

Over four years, tea drinkers lost an average of only 1.6 percent of their total hip bone mineral density, while non-tea drinkers lost 4 percent -- consistent with previous studies.

There was, however, no relationship between the amount of tea consumed and bone gains, which raises some questions about the mechanisms which might be responsible for the effect.

"We didn't see a dose-response to tea drinking -- that is, if you drank more tea, then your bones were even better," Devine said. "The lack of relationship may be due to the small numbers of tea drinkers in each group, once we started examining these data. When we just look at the whole group, we have more power to see a difference."

The authors speculated that certain components of tea, such as antioxidant flavonoids, might account for the benefit seen.

Flavonoids "have been shown to have a stimulatory effect on new cells that build bone in cell line studies," Devine explained. "Also, the weak estrogenic [effect] of phytoestrogens found in tea may be beneficial especially to older women whose levels of endogenous estrogen is low. Also, the addition of milk to tea will add calcium to the diet, which is also needed for healthy bones."

More information

There's more on bone loss at the National Osteoporosis Foundation.

SOURCES: Amanda Devine, Ph.D., senior lecturer, nutrition program, School of Exercise, Biomedical and Health Science, Edith Cowan University, and adjunct senior lecturer, School of Medicine and Pharmacology, University of Western Australia, Perth; Paul Brandt, Ph.D., associate professor, neuroscience and experimental therapeutics, Texas A&M Health Science Center College of Medicine; October 2007 *American Journal of Clinical Nutrition*

Last updated 10/10/2007.

This article can be accessed directly at:
http://www.healthscout.com/news/1/608979/main.html