The Bone Estrogen Strength Training (BEST) study for osteoporosis prevention was conducted by an interdisciplinary team of researchers in the Departments of Physiology and Nutritional Sciences at the University of Arizona. The study results showed that weight bearing and progressive resistance exercises, combined with Citracal® calcium citrate supplementation, significantly improved bone mineral density at skeletal sites at risk for fractures in postmenopausal women.

The research study was completed by 266 healthy, nonsmoking, postmenopausal women, average age 55.6 years, half of whom were currently taking hormone replacement therapy (HRT) and half of whom were not. All of the women received calcium citrate supplements that provided 800 mg of calcium a day and were instructed to take the supplements in two 400 mg doses spaced throughout the day.

The bone mineral density (BMD) of these women was measured at their hip, spine, arm, and total body over several years and their calcium supplement compliance was monitored regularly. The results of the BMD measurements demonstrated that a combination of adequate calcium intake and increased physical activity, using the specific exercise program tested in the BEST research study, prevents bone density loss in both populations of women.

The BEST Exercise Program for Osteoporosis Prevention provides guidelines for exercise that will make a difference in bone health. Key to achieving the goal of improved bone health is the intensity and structure of the exercise program and the level of resistance training performed on a regular basis. Additional educational information the details of this evidence-based exercise program is available in a book, on a website with videos, and through a continuing education course.

More information contact Linda Houtkooper at houtkoop@cals.arizona.edu