

Therapy reduces the risk of fragility fractures by 40 percent

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Osteoporosis, a disease of progressive bone loss, affects 70 percent of the U.S. population older than age 50: one in two women—and one in five men. These individuals are at risk for fragility fractures, a break that results from a fall, or occurs in the absence of obvious trauma, and most commonly seen in the wrist, the upper arm, the hip, and the spine.

People who sustain a fragility fracture are at a higher risk for future fractures and face increasing treatment costs. According to a new study appearing in the October 7 issue of *The Journal of Bone & Joint Surgery (JBJS)*, anti-osteoporotic therapy, a treatment intended to increase bone mineral density and slow or stop the loss of bone tissue, can decrease the risk of subsequent fractures by 40 percent.

"Fragility fractures have a major impact on [patients'](#) pain, function, and quality of life. They also account for a tremendous health care cost," said Harpreet S. Bawa, MD, lead study author and an orthopaedic surgeon at the University of Chicago Medical Center. "This study shows that initiation of anti-osteoporotic therapy following a fragility fracture can reduce subsequent fracture risk by 40 percent over three years and can prevent a subsequent fracture in one out of every 27 patients treated."

Over a three-year period, researchers studied 31,069 patients who were 50 years of age or older and had sustained a fragility fracture. Patients were divided into both a treatment group of approximately 3,200 patients and a no-treatment group. In order for patients to be included in the treatment group they needed to be prescribed anti-osteoporotic

therapy by a doctor and be at least 80 percent compliant with the prescribed therapy for at least six months. Other studies have shown this to be the minimum treatment period needed to see improvement in bone density.

Results

The age- and sex-adjusted anti-osteoporotic therapy group experienced the following substantial reductions in fracture risk:

- Hip—34 percent reduction
- Spine—43 percent reduction
- Wrist—50 percent reduction
- Upper arm—52 percent reduction
- All fractures combined—40 percent reduction

"The study highlights the public health benefits for improved prevention of secondary [fragility fractures](#)," said Dr. Bawa. "This knowledge can help patients make an informed decision about their treatment options after a first-time fragility fracture."

Provided by American Academy of Orthopaedic Surgeons

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