



## **Strontium (a major component in Bone Health) decreased vertebral fractures by 59%**

Strontium ranelate reduces the risk of vertebral and nonvertebral fractures in women eighty years of age and older. *J Bone Miner Res.* 2006 Jul;21(7):1113-20.

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**S**TRONTIUM RANELATE PRODUCES an early and sustained reduction of both vertebral and nonvertebral fractures in patients  $>$  or  $=$  80 years of age.

**INTRODUCTION:** About 25-30% of the population burden of all fragility fractures in the community arise from women  $>$  or  $=$  80 years of age, because this population is at high risk for all types of fracture, particularly nonvertebral fractures. Despite this, evidence that therapies reduce the risk of both vertebral and nonvertebral fractures in this group is lacking. The aim of this study was to determine whether strontium ranelate, an agent that reduces the risk of vertebral and nonvertebral fractures in postmenopausal women  $>$ 50 years of age, also reduces fractures in the elderly.

**MATERIALS AND METHODS:** An analysis based on preplanned pooling of data from two international, phase III, randomized, placebo-controlled, double-blind studies (the Spinal Osteoporosis Therapeutic Intervention [SOTI] and Treatment of Peripheral

Osteoporosis [TROPOS]) included 1488 women between 80 and 100 years of age followed for 3 years. Yearly spinal X-rays were performed in 895 patients. Only radiographically confirmed nonvertebral fractures were included.

**RESULTS:** Baseline characteristics did not differ in placebo and treatment arms. In the intent-to-treat analysis, the risk of vertebral, nonvertebral, and clinical (symptomatic vertebral and nonvertebral) fractures was reduced within 1 year by 59% ( $p = 0.002$ ), 41% ( $p = 0.027$ ), and 37% ( $p = 0.012$ ), respectively. At the end of 3 years, vertebral, nonvertebral, and clinical fracture risks were reduced by 32% ( $p = 0.013$ ), 31% ( $p = 0.011$ ), and 22% ( $p = 0.040$ ), respectively. The medication was well tolerated, and the safety profile was similar to that in younger patients.

**CONCLUSIONS:** "Treatment with strontium safely reduces the risk of vertebral and nonvertebral fractures in women with osteoporosis. Even in the oldest old, it is not too late to reduce fracture risk."