

Abstract

Background:

While only 30% of all hip fractures occurred in Asia in 1990, more than 50% will occur by the year 2050. We investigated the relationship between the Stiffness Index (SI), assessed with quantitative ultrasound, and calcium intake in a cross-sectional survey of suburban males of different ages.

Methods:

From 496 people who were invited, 274 participated (55%). A single operator performed quantitative ultrasound measurements at the right calcaneus using Lunar Achilles. We derived the Sri Lankan T-score values for SI. Calcium intake was measured using semiquantitative food frequency questionnaire to measure the previous 7 days intake.

Results:

There was gradual decrease in mean SI from the age of 30 years. Eighty percent of the men between 21–40 years had normal T-scores. This percentage value fell to high 60s in men between 41–70 years. After 71 years, 35% had normal T-scores and 30% had T-scores less than -2.5 . The mean calcium intake was 197 mg/day (95% CI 187–287 mg).

Conclusions:

This is the first population-based study done in Sri Lanka regarding calcium intake and SI in males. Although few men had low T-scores according to SI after 40 years, bone health of elderly (after 71 years) is at risk levels. The overall prevalence of low SI was negligible (4%) even with low calcium intake. Age is the only factor that influenced SI.