

# **Evaluation of Bone Mineral Density of the Lumbar Spine and Proximal Femur in Population-Based Routine Health Examinations of Healthy Asians.**

陳榮邦

**Chan WP;Liu JF;Chi WL;;**

摘要

## **Abstract**

**PURPOSE:** To understand the peak bone mineral density (BMD) and annual loss of BMD of the lumbar spine (L-BMD) and the proximal femur (F-BMD) and the prevalence of osteoporosis in both sexes in Taipei City, Taiwan. **MATERIAL AND METHODS:** The medical records from a recent 3-year period of annual health examinations at a single institution were reviewed. A total of 1514 men (mean age 49.08 +/- 13.62) and 1955 women (48.07 +/- 14.12), who lived in the Taipei area, had no major systemic disorders, and who had undergone both L-BMD and F-BMD examinations, were recruited. **RESULTS:** In women, peak L-BMD (1.078 +/- 0.133 g/cm<sup>2</sup>) occurred in the 30 to 39-year age group, whereas peak F-BMD (0.873 +/- 0.101 g/cm<sup>2</sup>) occurred in the 17 to 29-year age group. In men, peak L-BMD (1.095 +/- 0.137 g/cm<sup>2</sup>) and F-BMD (0.989 +/- 0.140 g/cm<sup>2</sup>) both occurred in the 17 to 29-year age group. The estimated annual bone loss was 0.69% of peak L-BMD in women over 50 years; in the proximal femur this was 0.688% in women and 0.332% in men. In women over 60 years, approximately half of the population had osteoporosis in the lumbar spine. **CONCLUSION:** We report descriptive BMD data of a Chinese population recruited from a Taipei urban area who underwent routine health examination. The values are similar to or higher than those of Japanese, Canadian and Greek populations. L-BMD was lower than that in the Lebanese, and F-BMD of both sexes was lower than that reported in the Greek study