

# P05 BONE MINERAL DENSITY IN UKRAINIAN WOMEN

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### BONE MINERAL DENSITY IN UKRAINIAN WOMEN

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**Objective.** The aim of this study were: to determine spine, femoral and radial BMD for a representative sample of healthy women of Ukrainian female descent, to determine the effect of age, height and weight on BMD, and to compare these results with those from a large USA/Northern Europe and US/European reference sample

**Materials and methods.** The research was conducted at the Ukrainian Scientific-Medical Centre for the Problems of Osteoporosis, and included 353 women aged 20-79 years. Conventional BMD measurements of the spine (L1-L4 in the anterior-posterior position), proximal femur (neck, Ward's triangle and trochanter regions) and radial shaft (33% site) were determined by DXA using a densitometer Prodigy (GE Medical systems).

**Results.** Age-related changes in BMD were similar in form to those of USA/ Northern Europe and US/European reference data. However, BMD of spine for subjects of 50-59 years in our sample were lower than published values. Regression analyses

showed that weight was a significant predictor of female spine and femur BMD for both the premenopausal and postmenopausal decades. Age was a significant predictor of female spine BMD in the 50-79 year age. The prevalence of osteoporosis and osteopenia for female subjects was 11% at the femur neck, and 20% and 24% at the spine and radial shaft respectively. Substantially lower prevalence of osteoporosis of lumbar spine in Ukrainian population, based on the WHO criteria, was established in comparison with US/European reference values.

**Conclusion.** Thus, standardizing of BMD measurements by DXA through the appropriate use of population-specific reference values is recommended to improve the quality of medical care provided in relation to the prevention and treatment of female subjects who are at risk as for osteoporosis or are already osteoporotic.