

Low bone mineral density in middle-aged women: A red flag for sarcopenia

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© 2017 by The North American Menopause Society. Objective: This study evaluated whether low bone density, a condition related to aging, is associated with low muscle mass, a surrogate for sarcopenia, and whether it could be used as a marker of the condition. Methods: We studied 483 women aged 35 to 69 years old who appeared healthy and attended a preventive gynecological examination. Dual-energy X-ray absorptiometry was used to measure bone mineral density (BMD) and regional body composition. BMD was assessed using the T-score. Low appendicular lean mass (aLM) adjusted by height (aLM index) was defined according to Baumgartner et al ($<5.45 \text{ kg/m}^2$). The association of low aLM index with bone mass was evaluated with a binary logistic regression using a cutoff point on the receiver operating characteristic curves for the T-score of -1.5. Results: The participants had a mean age of 54.7 ± 9.1 years, body mass index of $24.6 \pm 3.6 \text{ kg/m}^2$, aLM index of $5.9 \pm 0.6 \text{ kg/m}^2$ (22.6% showed sarcopenia).