

## **Evolution of neuromotor profile and functional capacity of physically active women according to chronological age**

Sandra Mahecha Matsudo<sup>1</sup> Victor K.R. Matsudo<sup>1</sup> Turibio Leite de Barros Neto<sup>2</sup> and Timóteo Leandro de Araújo<sup>1</sup>. CELAFISCS<sup>1</sup>, CEMAFE<sup>2</sup>.

**Rev. Bras. Med. Esporte, vol.9, nº 6, nov/dez, 377-387,2003.**

**Background and purpose:** There are few longitudinal studies to determine the effect of aging on physical fitness and functional capacity of physically active women. The purpose of this study was to compare the evolution of neuromotor profile and functional capacity in active elderly women in one-year period as related to chronological age at the base line. **Methods:** Sample consisted of 117 women from 50 to 79 years of age ( $x: 65 \pm 6.6$  years) engaged in an aerobic program, twice a week, 50 minutes per session during  $5.4 \pm 3.0$  years and divided in three age groups: 50-59 (n: 23); 60-69 (n: 60); 70-79 (n:34). Motor function and mobility tests included: lower and upper limb strength, agility, trunk flexibility, velocity of rising from a chair, static balance, gait speed and maximum gait speed. Results at the base line and in two evaluations made at six-month interval were compared using a Two Way ANOVA, with a post-hoc Bonferroni. **Results:** There were no differences regarding neuromotor performance, although velocity of rising from a chair and gait speed evidenced significant differences in groups 50-59 and 60-69 years, showing better results (10-20%); and for maximum gait speed there was an increase (8%) in 60-79 age groups. **Conclusion:** Present results suggest that physical fitness and functional capacity evolution had a similar pattern among physically active women, regardless of chronological age. This evolution supports the hypothesis of regular physical activity as a powerful tool to promote health, being of utmost importance to a healthy aging.

**Key words:** Aging. Neuromotor variables. Physical activity. Functional capacity. Longitudinal study.