

**EVOLUTION OF NEUROMOTOR PERFORMANCE IN ACTIVE ELDERLY
WOMEN
AFTER 8-MONTH PERIOD**

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Abstract

The purpose of this study was to compare the evolution of neuromotor performance in active elderly women after an 8-month period. The sample consisted of 148 women from 51 to 80 years of age ($x: 65.0 \pm 6.6$ years) involved in an aerobic program that included low aerobics and stretching activities, twice a week, 50 minutes per session, for the last two years. This group is part of The Happy Aging Longitudinal Study and was evaluated before (PRE) and after (POST) a 8-month period. The anthropometric characteristics were: body height: 155.2 cm and body weight: 67.5 kg; without any statistical differences between the pre-post period. The motor function and mobility tests included: handgrip strength (HGP), vertical jump (VJ), shuttle run (SR), sit and reach test (FLEX), sitting to standing position test (SS), static balance (SB), and gait speed (GS) and maximum gait speed (MGS). Results between evaluation were compared using “t” Student test for dependent samples and the level of significance adopted was $p < 0.01$.

		HGP (kg)	VJ (cm)	SR (sec)	FLEX (cm)
PRE	x / e	25.07 ± 5.38	15.52 ± 4.19	19.33 ± 3.36	25.73 ± 8.53
POST	x / e	25.09 ± 5.00	15.86 ± 5.55	19.21 ± 2.9	27.04 ± 8.28
Δ %		0.08	2.2	-0.62	5.1
		SS (sec)	SB (sec)	GS (sec)	MGS (sec)
PRE	x / e	18.34 ± 10.91	0.84 ± 0.22	3.34 ± 0.71	2.71 ± 0.35
POST	x / e	17.81 ± 9.89	0.73* ± 0.22	3.22 ± 1.08	2.60* ± 0.36
Δ %		-2.9	-13.1	-3.6	-4.06

* $p < 0.01$

Data evidenced statistical differences in some neuromotor variables after a 8-month period: there were improvements on performance to move from sitting to standing positions (13%) and maximum gait speed (4%). Although there were no significant improvements in most of the variables analyzed, it seems that this period of time was not enough to induce impairment of neuromotor performance. These results support the hypothesis that the involvement with regular physical activity during the aging process can help to maintain the physical function capacity.