Effect of a Walking Program on Functional Fitness Measures in Older Adults

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Increasing physical activity for an elderly population can have a significant effect on functional fitness and activities of daily living by increasing muscular strength, endurance, and gait speed. **PURPOSE:** To identify functional fitness changes on an elderly population through a 6-month walking intervention program. **METHODS:** Twenty one healthy, older individuals were recruited from a Senior Center (age: 72.4±6.1 yrs; height: 158.9±6.6 cm; weight: 81.1±12.7 kg; BMI: 31.9±0.9). Subjects self-selected to participate in either a walking (WG) or control (CON) group. Subjects in the WG were given a pedometer to wear and were assigned a daily step goal of eventually reaching ≥10,000 steps/day. Each month, subjects were evaluated using: six-minute walk (6min) test, a 20 m walk at a maximum pace (with initial 2.44 m and middle 10 m components), 30 s chair stand (CS) task that measured the number of CS, and lastly a get-up-and-go (GUAG) task that measured the time to walk 2.44 m after standing from a seated position and returning to a seated position. A two-way ANOVA with repeated measures was used to make group and time (baseline vs. month 3) comparisons. **RESULTS:** Compared to baseline, many of the functional fitness measures improved, after 3 months' of walking intervention.

	Walking Group			Control Group		
	Baseline	Month 3	% change	Baseline	Month 3	% change
6 min (m)	351.5±46.8	398.1±70.4*	13.3	312.7±52.0	360.8±42.7*	15.4
2.44 m Max (W)	987.9±186.4	1126.0±248.1*	14.0	877.6±239.2	939.8±217.5	7.1
2.44 m GS ($m \cdot s^{-1}$)	1.2±0.2	1.4±0.2*	15.4	1.1±0.2	1.2±0.3	6.6
10 m Max (s)	6.7±1.3	6.4±0.7	-3.3	7.7±1.6	7.5±1.4	-1.6
CS 30 (rep)	13.0±3.1	15.2±3.9*	17.0	11.8±2.4	13.3±1.5	12.3
GUAG (s)	6.9±1.2	6.2±1.0	-9.2	7.9±1.7	7.1±1.4	-9.6

Note: *Significantly different from the baseline ($p<0.05$).

CONCLUSION: The preliminary findings suggest that a three-month walking intervention program for older adults can significantly improve some of their functional fitness measures, which may aid in their activities of daily living.