

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·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.