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1: Arch Phys Med Rehabil. 2007 Jul;88(7):852-7.

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FULL-TEXT ARTICLE

**High-frequency whole-body vibration improves balancing ability in elderly women.**

**Cheung WH, Mok HW, Qin L, Sze PC, Lee KM, Leung KS.**

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**OBJECTIVE:** To investigate the efficacy of high-frequency whole-body vibration (WBV) on balancing ability in elderly women. **DESIGN:** Randomized controlled trial. Subjects were randomized to either the WBV intervention or the no-treatment control group. **SETTING:** Community-living elderly women. **PARTICIPANTS:** Sixty-nine elderly women aged 60 or above without habitual exercise. **INTERVENTION:** Side alternating WBV at 20Hz with 3 minutes a day and 3 days a week for 3 months in the WBV intervention group. Those in control group remained sedentary with normal daily life for the whole study period. **MAIN OUTCOME MEASURES:** Limits of stability in terms of reaction time, movement velocity, directional control, endpoint excursion, maximum excursion, and the functional reach test were performed at baseline and endpoint. **RESULTS:** Significant enhancement of stability was detected in movement velocity ( $P < .01$ ), maximum point excursion ( $P < .01$ ), in directional control ( $P < .05$ ). **CONCLUSIONS:** WBV was effective in improving the balancing ability in elderly women. This also provides evidence to support our user-friendly WBV treatment protocol of 3 minutes a day for the elderly to maintain their balancing ability and reduce risks of fall.

PMID: 17601464 [PubMed - indexed for MEDLINE]

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