

Effects of whole body vibration training on postural control in older individuals: a 1 year randomized controlled trial.

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Abstract

This randomized controlled trial investigated the effects of a 12 month whole body vibration training program on postural control in healthy older adults. Two hundred and twenty people were randomly assigned to a whole body vibration group (n=94), a fitness group (n=60) or a control group (n=66). The whole body vibration and fitness groups trained three times a week for 1 year. The vibration group performed exercises on a vibration platform and the fitness group performed cardiovascular, strength, balance and stretching exercises. Balance was measured using dynamic computerized posturography at baseline and after 6 and 12 months. Whole body vibration training was associated with reduced falls frequency on a moving platform when vision was disturbed and improvements in the response to toes down rotations at the ankle induced by the moving platform. The fitness group showed reduced falls frequency on the moving surface when vision was disturbed. Thus, whole body vibration training may improve some aspects of postural control in community dwelling older individuals.

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