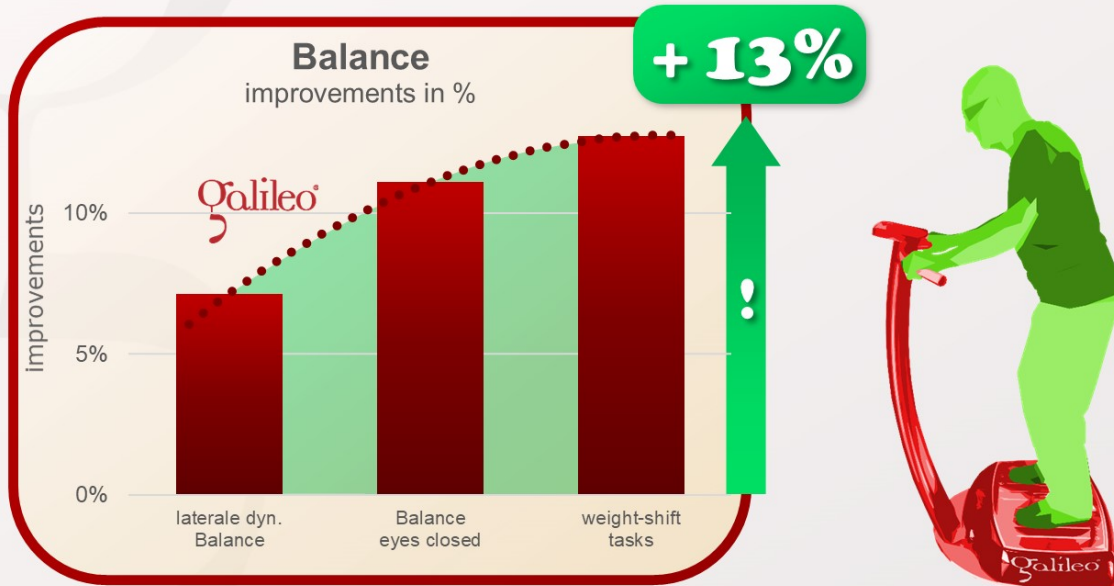




# Can 3 minutes Galileo Training improve balance in unilateral chronic stroke patients ?

## The an answer is: YES

This study documented the acute effects of 4\*45 seconds of high-frequency Galileo Training on balance in unilateral chronic stroke patients (30Hz, 4\*45 sec., pos. 3, slight squat). The results show that Galileo Training in chronic stroke patients can improve balance in just 3 minutes by up to 13%.



van Nes IJ, Geurts AC, Hendricks HT, Duysens J: Short-term effects of whole-body vibration on postural control in unilateral chronic stroke patients: preliminary evidence; Am J Phys Med Rehabil., 83(11):867-73, 2004; PMID: 15502741; GID: 273



[Am J Phys Med Rehabil.](#) 2004 Nov;83(11):867-73.

## **Short-term effects of whole-body vibration on postural control in unilateral chronic stroke patients: preliminary evidence.**

van Nes IJ<sup>1</sup>, Geurts AC, Hendricks HT, Duysens J.

### **Abstract**

The short-term effects of whole-body vibration as a novel method of somatosensory stimulation on postural control were investigated in 23 chronic stroke patients.

While standing on a commercial platform, patients received 30-Hz oscillations at 3 mm of amplitude in the frontal plane.

Balance was assessed four times at 45-min intervals with a dual-plate force platform, while quietly standing with the eyes opened and closed and while performing a voluntary weight-shifting task with visual feedback of center-of-pressure movements. Between the second and third assessments, four repetitions of 45-sec whole-body vibrations were given.

The results indicated a stable baseline performance from the first to the second assessment for all tasks.

After the whole-body vibration, the third assessment demonstrated a reduction in the root mean square (RMS) center-of-pressure velocity in the anteroposterior direction when standing with the eyes closed ( $P < 0.01$ ), which persisted during the fourth assessment.

Furthermore, patients showed an increase in their weight-shifting speed at the third balance assessment ( $P < 0.05$ ) while their precision remained constant. No adverse effects of whole-body vibration were observed.

It is concluded that whole-body vibration may be a promising candidate to improve proprioceptive control of posture in stroke patients.

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