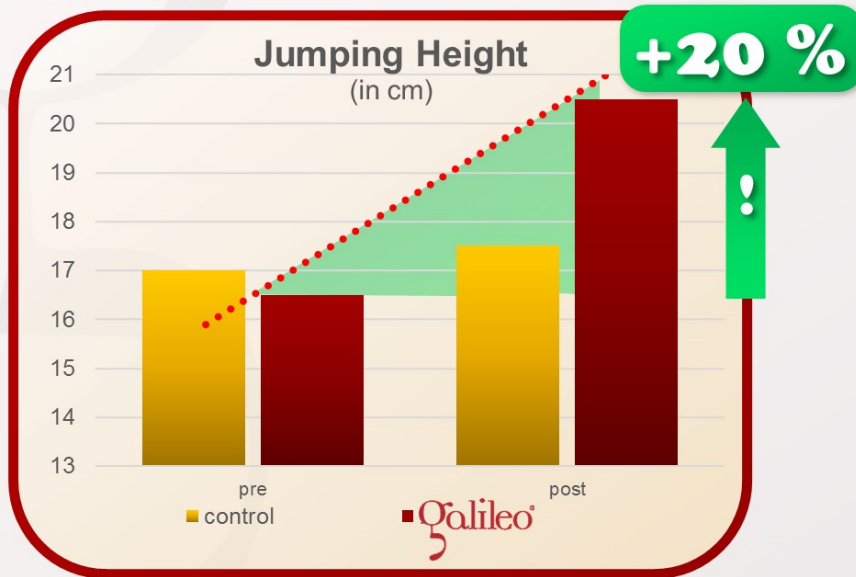


Can Galileo Training improve jumping height in older individuals ?

The answer is: YES

This study investigated the effect of Galileo Training on jumping height in 45 to 63 year old individuals. They performed 12 training sessions at 30 Hz within 6 weeks. As a result jumping height increased by almost 20% while there was no significant change in the control group. The authors therefore suggested Galileo Training as an alternative to standard strength training methods.



Perchthaler D, Grau S, Hein T: Evaluation of a six-week whole-body vibration intervention on neuromuscular performance in older adults.; J Strength Cond Res, 29(1):86-95, 2015; PMID: 25028997; GID: 3583



J Strength Cond Res. 2015 Jan;29(1):86-95. doi: 10.1519/JSC.0000000000000608.

Evaluation of a six-week whole-body vibration intervention on neuromuscular performance in older adults.

Perchthaler D1, Grau S, Hein T.

Abstract

Research in the field of whole-body vibration (WBV) for the enhancement of neuromuscular performance is becoming increasingly popular. However, additional understanding of optimal WBV training protocols is still necessary to develop optimal and effective training and prevention concepts, especially for elderly people.

The intention of this study was to evaluate a 6-week WBV intervention program based on optimal vibration loads adapted from the literature on lower-limb strength parameters and performance, as well as on perceived exertion according to a subjective rating. A total of 21 older adults were allocated randomly into either a WBV training or control group (CO). Before and after the intervention period, jump height was measured during a countermovement jump. In addition, isolated isokinetic maximal knee extension and flexion strength, mean power, and work were recorded using a motor-driven dynamometer. Borg's scale for rating of perceived exertion was used to evaluate the intensity of WBV exercises within each training session.

After the intervention period, jump height increased by 18.55% ($p < 0.001$) in the WBV group, whereas values of the CO remained unchanged. There were no statistically significant differences in isokinetic maximal strength, mean power, or work values in knee extension or flexion (all $p > 0.05$). Finally, the subjective perceived exertion of the WBV exercises and respective training parameters ranged between moderate rating levels of 7 and 13 of Borg's scale.

Our data shows that WBV is a feasible and safe training program for elderly people to increase multi-joint strength performance of the lower limbs during a countermovement jump. This could help to determine the potential of WBV programs in training of the elderly to prevent age-related reduction of neuromuscular performance.

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