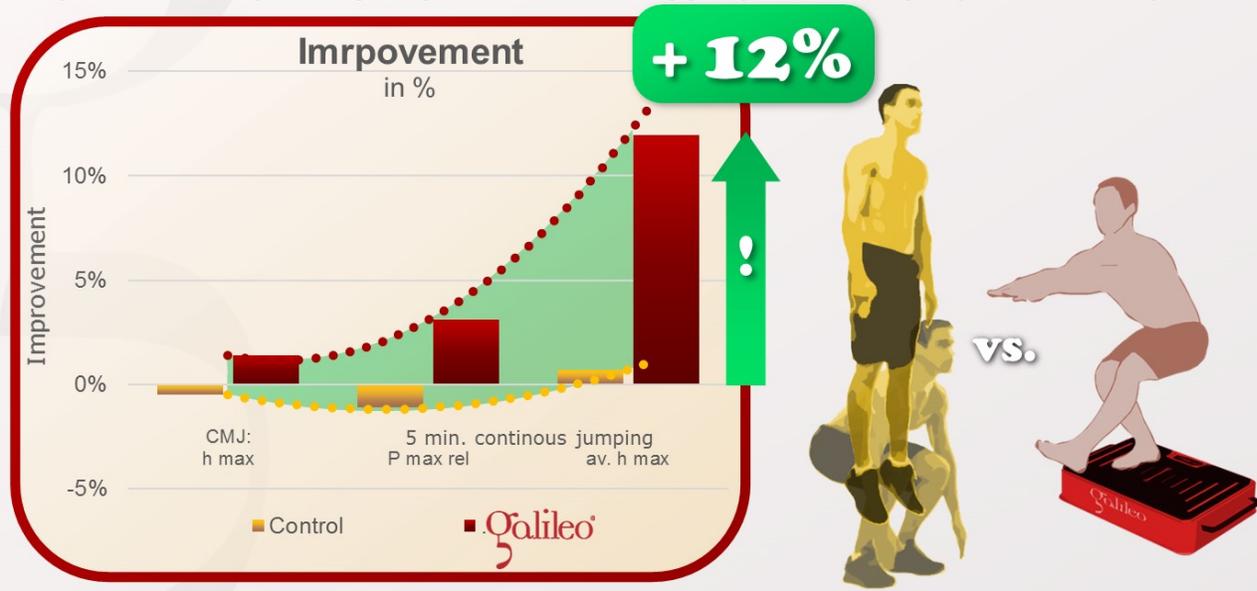


# Can Galileo Training increase jumping performance after only 10 days ?

## The answer is: YES

The first Whole Body Vibration Training study ever, done with Galileo in 1998. It shows the effects of Galileo Training on Jumping performance in active handball and water polo players (26Hz, pos. 5, 5\*2 min., 10 days, 1) forefoot 2) 45° squat 3) 90°squat 4/5) 90°squat one legged). Both groups performed additional 20 min. warmup and 5 min. jump training. Only the Galileo Training group showed jump improvements of up to 12%.



Bosco C, Cardinale M, Tsarpela O, Colli R, Tihanyi J, Ducillard C, Viru A: The Influence of Whole Body Vibration on Jumping Performance; Biology of Sport, 15/3:157-164, 1998; GID: 167

**This study was the first study about Whole Body Vibration Training (WBV) ever. Done by Carmelo Bosco and Marco Cardinal in 1998. This study gave the WBV name to this new training method and it was done using a Galileo 2000 device – on of the first series.**

Even though the effects seem small at first sight keep in mind that this was achieved in a group of active handball and water polo player who performed sport-specific training 3 times per week and only got 10 sets of Galileo Training with 5x2 minutes. What is remarkable is that especially the average jumping height during 5 minutes of continuous jumping increased by 12%. This means the training also had a significant effect on endurance. A fact which has been shown by many studies since ([#GRFS11](#) [#GRFS12](#)). This is also one of the studies which is quoted incorrectly by many Galileo copies because it was done using high frequencies (26Hz) which many of the cheaper copies are not able to produce - often they are limited to about 15Hz only and therefore they cannot reach the frequency range needed for training at high muscle activation levels for effective performance improvements ([#GRFS3](#) [GRFS6](#) ).

The first Galileo study used one of the most effective body weight training exercises for upper leg and glutes: Exercise No. 44: deep one-legged squats (put the weight on the heel to maximize the training on the upper leg (not on the calf) – by the way: the more you shift the weight on the heel the more training effect will be on the Tibialis Anterior and for Balance also) - effective body weight training for advanced users. For beginners you can also do the same exercise using both legs (Exercise 41) – if you do that at real 90° Knee angle (knees almost horizontal) for 60 seconds you can really exhaust an untrained upper leg to its extreme. If you want to make it even harder add 2 - 5kg dumbbells and hold them in front of you with straight arms and arms parallel to the floor (and don't forget to put the weight on your heels!)



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## **The influence of whole body vibration on jumping performance.**

C. Bosco, M. Cardinale, O. Tsarpela, R. Colli, J. Tihanyi, S. P. Von Duvillard, A. Viru

### **Abstract**

The effects of whole body vibrations on the mechanical behaviour of human skeletal muscles were studied in 14 physically active subjects randomly assigned to the experimental (E) or control (C) group. Group E was subjected to 5 sets of vertical sinusoidal vibrations lasting up to 2 min each, for 10 min daily, for a period of 10 days.

The control subjects were requested to maintain their normal activity and to avoid strength or jumping training.

The subjects were tested at the beginning and at the end of the treatment. The test consisted of specific jumping on a resistive platform.

Marked, significant improvements were noted in Group E in the power output and height of the best jump (by 6.1 and 12%, respectively,

