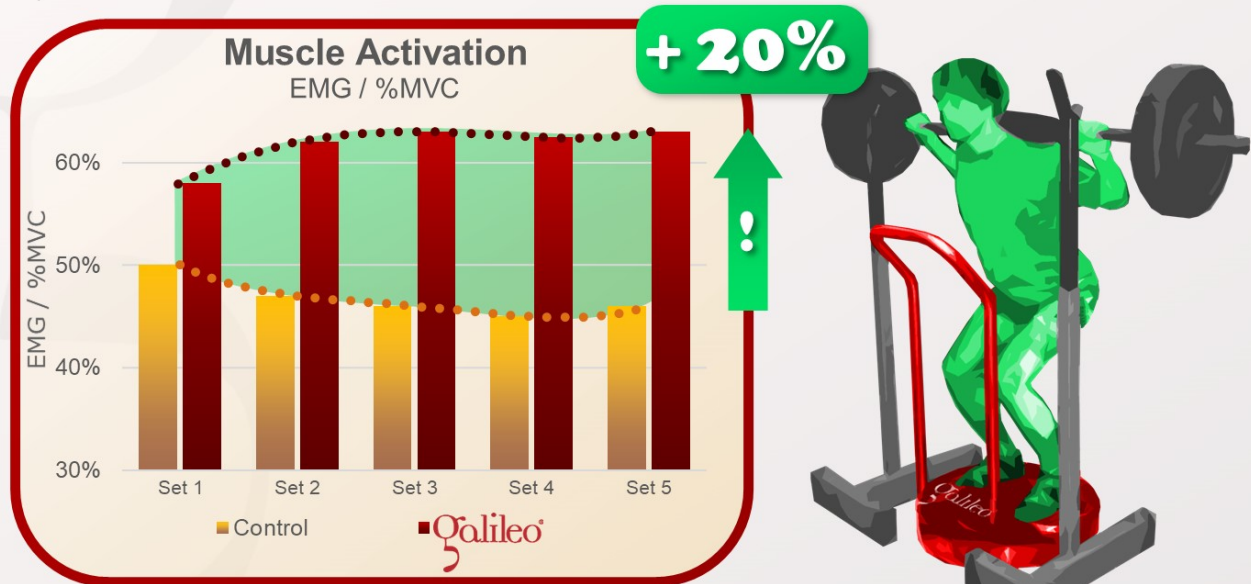


Are squats in combination with Galileo Training more effective ?

The answer is: YES

This study investigated the effects of squats with and without Galileo Training on muscle activation (EMG) (5 Sets of 10 squats, with & without Galileo Training, 22Hz, pos. 4). Compared to the control group the Galileo Group was able to increase muscle activation more (by up to 65% of maximum voluntary contraction, MVC) and could even increase the activation from set to set.



Eckhardt H, Wollny R, Müller H, Bärtsch P, Friedmann-Bette B: Enhanced Myofiber Recruitment During Exhaustive Squatting Performed as Whole-Body Vibration Exercise; J Strength Cond Res., Apr;25(4):1120-5, 2011; PMID: 20647942; GID: 2370

Once more as shown in [#GRFS3](#) and [#GRFS4](#) this study shows that muscle activation (EMG signal) in squatting is more effective in combination with Galileo Training.

The study used 5 sets of 10 repetitions of deep squats with and without Galileo Training (22Hz, pos. 2).

The EMG was measured in proportion to the maximum voluntary contraction (MVC).

In combination with Galileo Training the muscles could be activated by additional 20% MVC and the activation even increased from set to set while it decreased in the control group.

Another prove for the effectiveness of Galileo Training.



[J Strength Cond Res.](#) 2011 Apr;25(4):1120-5. doi: 10.1519/JSC.0b013e3181d09e0e.

Enhanced myofiber recruitment during exhaustive squatting performed as whole-body vibration exercise.

Eckhardt H¹, Wollny R, Müller H, Bärtsch P, Friedmann-Bette B.

Abstract

The purpose of the study was to test the hypothesis that myofiber recruitment is enhanced when whole-body vibration (WBV) is added to squat training.

In a randomized cross-over design, 14 recreationally active men were subjected to 2 sessions consisting of 5 sets of 10 squats with external load, performed either on a vibration platform (whole-body vibration squatting [WBVS]) or conventionally without WBV (CON). Electromyographic (EMG) activity of the right vastus lateralis muscle was continuously recorded during WBVS and CON.

The integrated EMG values were normalized to the EMG activity recorded during measurement of the maximal voluntary contraction force (MVC) on an isometric leg press at the beginning of each training session. Capillary lactate concentration was determined before and repeatedly after the squatting exercise.

Overall mean normalized and integrated EMG (nIEMG) activity during WBVS ($62 \pm 4\%$ MVC) was significantly ($p < 0.001$) higher compared with CON ($47 \pm 2\%$ MVC).

There was a tendency for nIEMG to increase during the 5 sets of 10 squats performed as WBVS ($p = 0.089$), whereas there was a significant ($p < 0.001$) decrease in nIEMG during CON. Whole-body vibration squatting induced a significantly ($p < 0.001$) larger increase in capillary lactate than CON (3.03 ± 0.32 vs. 1.60 ± 0.30 mmol \cdot L⁻¹), $p < 0.001$).

The increased myoelectric activity and the enhanced exercise-induced increase in capillary lactate concentration during WBVS provide evidence for augmented recruitment of muscle tissue when WBV is added to exhaustive squatting exercise.

PMID:20647942 DOI:[10.1519/JSC.0b013e3181d09e0e](#)