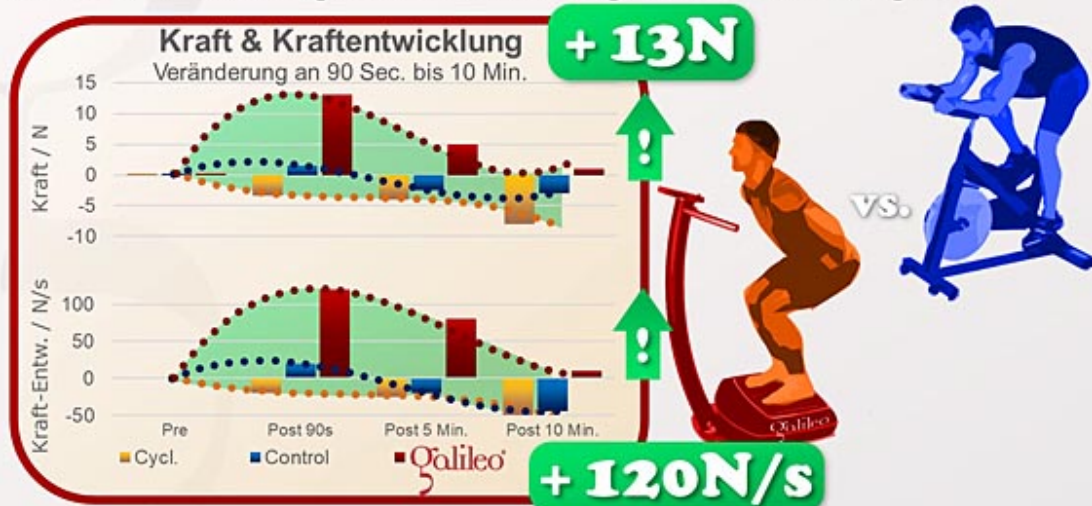


## Die Antwort ist: JA

Die Studie untersuchte den Kurzzeiteffekt von Galileo Training auf Kraft und Kraftentwicklung (26Hz, 40° Kniebeuge, Pos. 3, 5Min). Die Kontrollgruppen führten identische Übungen ohne Vibration bzw. Fahrradergometer (70W) durch. Gemessen wurde Kraft & Kraftanstieg bei Elektrostimulation. Während beide Kontrollgruppen beide Parameter reduzierten steigerten 5 Min. Galileo Training Kraft und Kraftentwicklung deutlich.



Cochrane DJ, Stannard SR, Firth EC, Rittweger J: Acute whole-body vibration elicits post-activation potentiation. Eur J Appl Physiol, 108(2):311-9, 2010; PMID: 19795130; GID: 2098

This study investigated the short-term effect of Galileo Training on muscle activation, muscle force and rate of force development (RFD).

The control groups either received identical exercises (5 minutes 40° static squat) or cycling ergometer (5 minutes at 70W, another study showed that this resulted in the same temperature change as 5 minutes Galileo Training).

The Galileo group received 5 minutes Galileo Training, 40° squat, position 3 at 26Hz. Maximum force a rate of force development was measured during electro stimulation (one single twitch) and during a patella reflex (triggered by a reflex hammer).

While the control groups did not show a relevant positive effect or even decreased, 5 minutes of Galileo Training could significantly increase force and rate of force development.

The results showed as #GRFS137, #GRFS129, #GRFS47, #GRFS38 how effectiev Galileo Training can be used as warm-up.



2010 Jan;108(2):311-9. doi: 10.1007/s00421-009-1215-2. Epub 2009 Oct 1.

## **Acute whole-body vibration elicits post-activation potentiation.**

[Cochrane DJ](#)<sup>1</sup>, [Stannard SR](#), [Firth EC](#), [Rittweger J](#).

Whole-body vibration (WBV) leads to a rapid increase in intra-muscular temperature and enhances muscle power.

The power-enhancing effects by WBV can, at least in part, be explained by intra-muscular temperature. However, this does not exclude possible neural effects of WBV occurring at the spinal level.

The aim of this study was to examine if muscle twitch and patellar reflex properties were simultaneously potentiated from an acute bout of WBV in a static squat position.

Six male and six female athletes performed three interventions for 5 min, static squat with WBV (WBV+, 26 Hz), static squat without WBV (WBV-) and stationary cycling (CYCL, 70 W).

Transcutaneous muscle stimulation consisting of a single 200 micro pulse and three patellar tendon taps were administered prior to and then 90 s, 5, 10 min post-intervention.

Ninety-seconds after WBV+ muscle twitch peak force (PF) and rate of force development (RFD) were significantly higher ( $P < 0.01$ ) compared to WBV- and CYCL.

However the patellar tendon reflex was not potentiated.

An acute continuous bout of WBV caused a post-activation potentiation (PAP) of muscle twitch potentiation (TP) compared to WBV- and CYCL indicating that a greater myogenic response was evident compared to a neural-mediated effect of a reflex potentiation (RP).

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