## Can Galileo Training at work decrease subjective back pain

## The answer is: YES

lileo

Training

This study documented the effects of workplace-based Galileo Training on subjective back pain in individuals with chronic lower-back pain (10-30Hz, slightly bent legs, pos. 1-3, 15 min., 2-3/weeks, 3 months). The control group received no training. While the control group slightly decreased the Galileo group improved by up to 4.5% and showed a tendency to decrease days of sick-leave per month.



Galileo Research Fact Sheet #98

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Like other studies (<u>#GRFS27</u> <u>#GRFS25#GRFS9</u>) this study shows that frequent Galileo training can decrease subjective back pain.

In this case training was performed at work – 2-3 times per week for 15 minutes (10-30Hz, slightly bent knees) over a period of 3 months.

The subjective back pain was measured by several questionnaires (Roland and Morris disability questionnaire (RMQ), Oswestry Disability Index (ODI), Health-related quality of life (FS-36)).

The control group did not perform any additional exercise and decreased in most questionnaires.

The Galileo group however increased in almost all questionnaires by up to 4.5% and even showed a tendency to decrease leave-days at work (to be able to reach significance the number of monitored individuals (41 in this study) and the duration would have been needed to be increased).



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## Whole-body vibration training as a workplace-based sports activity for employees with chronic low-back pain.

Kaeding TS<sup>1</sup>, Karch A<sup>2</sup>, Schwarz R<sup>1</sup>, Flor T<sup>2</sup>, Wittke TC<sup>1</sup>, Kück M<sup>1</sup>, Böselt G<sup>3</sup>, Tegtbur U<sup>1</sup>, Stein L<sup>1</sup>.

## Abstract

The goal of this randomized and controlled study was to examine whether whole-body vibration (WBV) training is able to reduce back pain and physical disability in seated working office employees with chronic low-back pain in a real-world setting.

A total of 41 subjects (68.3% female/mean age  $45.5\pm9.1$  years/mean BMI 26.6 $\pm5.2$ ) were randomly allocated to an intervention group (INT [n=21]) or a control group (CON [n=20]).

The INT participated in WBV training 2.5 times per week for 3 months. The primary outcome was the change in the Roland and Morris disability questionnaire (RMQ) score over the study period. In addition, secondary outcomes included changes in the Oswestry Disability Index (ODI), the Work Ability Index Questionnaire, the quality of life questionnaire SF-36, the Freiburger activity questionnaire, and an isokinetic test of the musculature of the trunk.

Compliance with the intervention in the INT reached a mean of 81.1%±31.2% with no long-lasting unwanted side effects.

We found significant positive effects of 3 months of WBV training in the INT compared to the CON regarding the RMQ (P=.027), the ODI (P=.002), the SF-36 (P=.013), the Freiburger activity questionnaire (P=.022), the postinterventional sick-leave in the INT (P=.008), and trends regarding a positive effect of the intervention on the muscular capacity of the muscles of the trunk in flexion.

WBV training seems to be an effective, safe, and suitable intervention for seated working employees with chronic low-back pain.

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