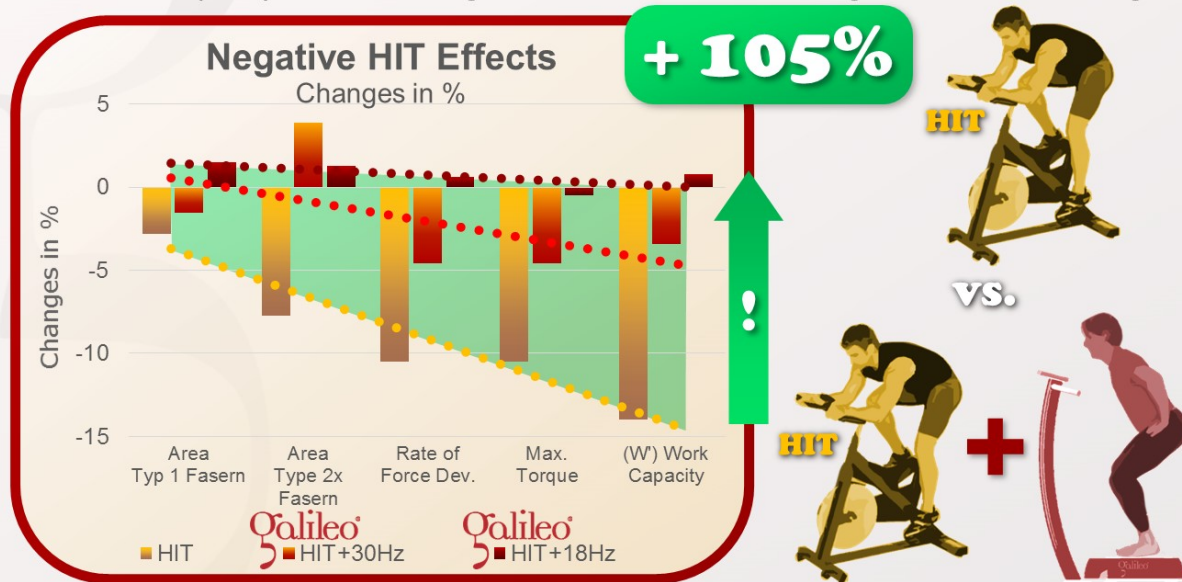


# Can Galileo Training compensate the negative effects of HIT on anaerobic power?

## The answer is: YES

This study used Galileo Training in rest phases between High Intensity Training (HIT) intervals to reduce loss of anaerobic power (20 Sessions HIT, HIT+18Hz/HIT+30Hz, 3 min., pos. 3, knees half bent). Galileo Training during rest phases could compensate the HIT associated loss of anaerobic power and MyHC-2x fiber cross-sectional area completely. Galileo Training at 18 Hz showed about 20% higher effects than training at 30Hz.



Mueller SM, Boutellier U, Auer M, Jung HH, Toigo M, et al.: High-Intensity Interval Training with Vibration as Rest Intervals Attenuates Fiber Atrophy and Prevents Decreases in Anaerobic Performance.; PLoS One, 10(2):e0116764, 2015; PMID: 25679998; GID: 3771

### And they did it again... the group around Marco Toigo of the ETH in Zürich turned the classic training methods upside down again:

High Intensity Training (HIT) is an extremely exhausting type of training which has a tremendous effect on endurance (aerobe muscles). A typical example is cycling ergometer training at very high loads over just a few minutes (a few thousand Watts (way beyond an ordinary cycling ergometers). The goal is to exhaust the muscles completely just in a few minutes (in this case just 4 minutes). Typically HIT has a significant negative effect on the fast twitch fibers (anaerobe muscles) which results in a significant decrease of anaerobe power and fiber cross sectional area. Well – up to now. Toigo's group added in between sets just 3 minutes of Galileo Training at 18Hz (and 30Hz in an additional group) simply standing with bent knees on the Galileo.

The astonishing result: The negative effects of HIT on anaerobe muscles and power are completely compensated by the additional Galileo Training at 18 Hz while the positive Effects of HIT are not affected. The study also shows that for this special purpose the Galileo Training at 18 Hz is about 20% more effective than at 30Hz. Another side-effect was, that the pause time could be reduced significantly (to the 3 Minutes).

So whoever uses HIT should consider to add Galileo Training at 18 Hz for the rest phases in-between sets. But there is an even higher potential: keep in mind that Galileo Training can decrease muscle soreness after intense training by 50% (#GRFS1) and Creatinekinase by 40% (#GRFS5). In addition, stretching in between sets or after sets can increase the training effect of standard muscle exercises.

So: Add Galileo to your training!



[J Phys Ther Sci](#). 2015 Mar;27(3):805-8. doi: 10.1589/jpts.27.805. Epub 2015 Mar 31.

## **The effects of whole body vibration on static balance, spinal curvature, pain, and disability of patients with low back pain.**

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Abstract

### **PURPOSE**

The purpose of this study was to investigate the impact of whole body vibration (WBV) on static balance, spinal curvature, pain, and the disability of patients with chronic lower back pain.

### **SUBJECTS AND METHODS**

The subjects were of 40 patients, who were randomly assigned to WBV and control groups. Twenty-five minutes of lumbar stability training and 5 minutes of WBV were conducted for the WBV group, and 30 minutes of lumbar stability training was conducted for the control group. The training was conducted three times per week for a total of 6 weeks. Static balance, spinal curvature, pain, and disability were measured before and after the intervention.

### **RESULTS**

After the intervention, the WBV group showed a significant differences in static balance, spinal curvature, pain, and disability. The control group presented significant differences in pain, and disability. In the comparison of the two groups, the WBV group showed more significant improvements in the fall index and pain.

### **CONCLUSION**

WBV can be recommended for the improvement of the balance ability and pain of chronic lower back pain patients.

PMID: 25931735 PMCID: [PMC4395719](#) DOI: [10.1589/jpts.27.805](#)