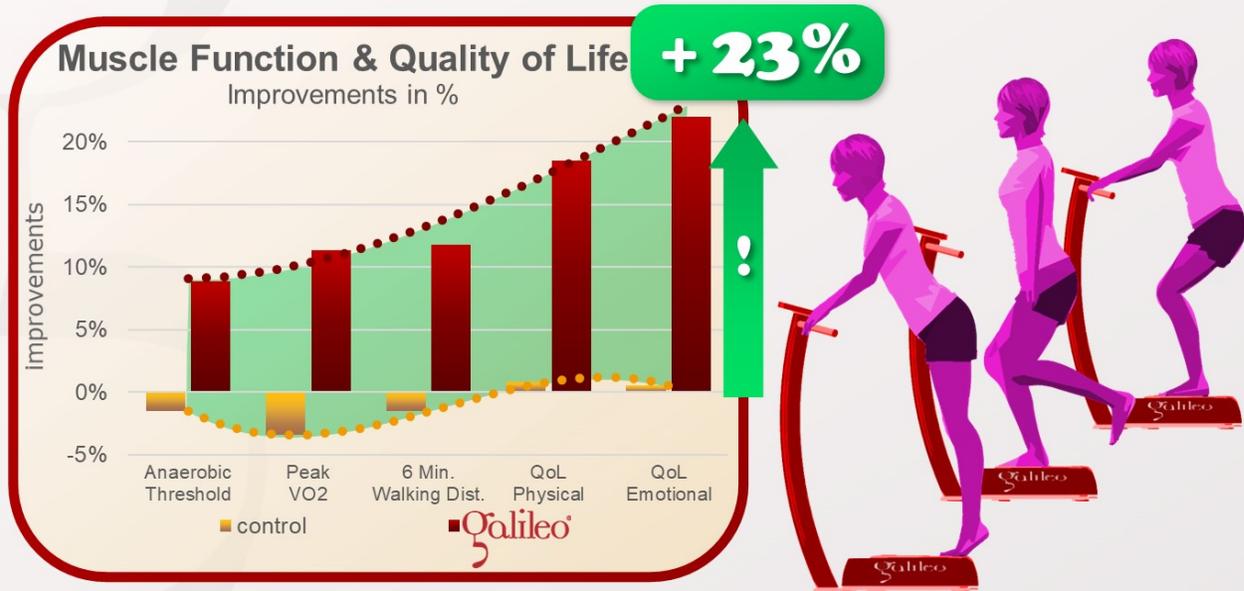




Can Galileo Training increase muscle power in Pulmonary Arterial Hypertension (PAH)?

The answer is: YES

This study documented the effects of 4 weeks of Galileo Training on muscle power and quality of life in patients with Pulmonary Arterial Hypertension (PAH) (20Hz, pos. 2, 60 minutes, 4/week, 4 weeks). The control group received standard physio therapy the Galileo group additional Galileo Therapy. The Galileo Group showed significantly higher increase in muscle power (+12%) and in quality of life assessment (+23%).



Gerhardt F, Beccard R, Hellmich M, Schonau E, Rosenkranz S, et al.: Oscillatory whole-body vibration improves exercise capacity and physical performance in pulmonary arterial hypertension: a randomised clinical study.; Heart, 103(8):592-598, 2017; PMID: 28100544; GID: 4351

Galileo Research Fact Sheet #80

Therapy: Pulmonary Arterial Hypertension

www.galileo-training.com

This study tested the effects of only 4 weeks of Galileo Training on muscle power (CRT and 6 minutes walking test), function of the cardiovascular system (CO2 max., anaerobe threshold) and quality of life.

The control groups received standard physio therapy and was stable in their function over a longer period of time.

The Galileo Group received addition Galileo Training (60 minutes per session, 20Hz, different exercises, pos. 2).

The Galileo Group showed essential improvements in all documented functions like +12% improvements in muscle power and 23% improvements in quality of life.

This study, as also [#GRFS41](#), [#GRFS34](#) and [#GEFS31](#), is a good example how Galileo Training can be used safely even in patients in a significantly deconditioned state to improve muscle power and therefore quality of life.



[Heart](#). 2017 Apr;103(8):592-598. doi: 10.1136/heartjnl-2016-309852. Epub 2017 Jan 18.

Oscillatory whole-body vibration improves exercise capacity and physical performance in pulmonary arterial hypertension: a randomised clinical study.

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Abstract

OBJECTIVE:

In patients with pulmonary arterial hypertension (PAH), supportive therapies may be beneficial in addition to targeted medical treatment. Here, we evaluated the effectiveness and safety of oscillatory whole-body vibration (WBV) in patients on stable PAH therapy.

METHODS:

Twenty-two patients with PAH (mean PAP \geq 25 mm Hg and pulmonary arterial wedge pressure (PAWP) \leq 15 mm Hg) who were in world health organization (WHO)-Functional Class II or III and on stable PAH therapy for \geq 3 months, were randomised to receive WBV (16 sessions of 1-hour duration within 4 weeks) or to a control group, that subsequently received WBV. Follow-up measures included the 6-min walking distance (6MWD), cardiopulmonary exercise testing (CPET), echocardiography, muscle-power, and health-related quality of life (HRQoL; SF-36 and LPH questionnaires).

RESULTS:

When compared to the control group, patients receiving WBV exhibited a significant improvement in the primary endpoint, the 6MWD (+35.4 \pm 10.9 vs -4.4 \pm 7.6 m), resulting in a net benefit of 39.7 \pm 7.8 m ($p=0.004$). WBV was also associated with substantial improvements in CPET variables, muscle power, and HRQoL. The combined analysis of all patients ($n=22$) indicated significant net improvements versus baseline in the 6MWD (+38.6 m), peakVO₂ (+65.7 mL/min), anaerobic threshold (+40.9 mL VO₂/min), muscle power (+4.4%), and HRQoL (SF-36 +9.7, LPH -11.5 points) (all $p<0.05$). WBV was well tolerated in all patients, and no procedure-related severe adverse events (SAEs) occurred.

CONCLUSIONS:

WBV substantially improves exercise capacity, physical performance, and HRQoL in patients with PAH who are on stable targeted therapy. This methodology may be utilised in structured training programmes, and may be feasible for continuous long-term physical exercise in these patients.

PMID: 28100544