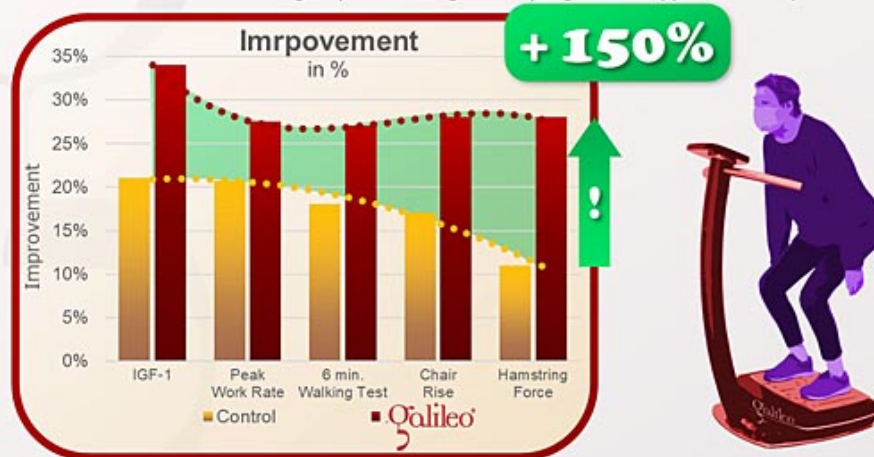




Can Galileo Therapy be used to increase muscle power even after lung transplant ?

The answer is: YES

This study tested the effects of Galileo Therapy in COPD patients after a lung transplant on muscle function and muscle power (24-26Hz, pos. 3, squats, 3x2 Min., 3/week, 4 weeks). Both groups received conventional strength and endurance training (30 Minutes per session) and additionally 3x2 minutes squat exercises with and without Galileo. The Galileo group showed significantly higher therapy effects of up to extra 150%.



Gloeckl R, Heinzelmann I, Seeborg S, Damisch T, Hitzl W, Kenn K: Effects of complementary whole-body vibration training in patients after lung transplantation: A randomized, controlled trial.; J Heart Lung Transplant, 34(11):1455-61, 2015; PMID: 26279196; GID: 3966

Galileo Research Fact Sheet #31

Therapy: Lung Transplant

www.galileo-therapy.com

At first it seems amazing: Can this intensive therapy even work for such a deconditioned target group?

The answer is creepy: of course this works, because the extremely deconditioned can indeed, for example.

Also strength training make like the high-performance athlete - but not with the same weights - so with an adjusted intensity to the user.

This intensity is limited in Galileo therapy but not on the variation of the vibration frequency. In this study, e.g. worked in the squat at high frequencies (24-26Hz).

However, in the lighter version (only 45 ° squat instead of 90 ° as in a fitter patient).

30 minutes of conventional strength and endurance training with only 3 * 2 minutes was added to each session (3 per week) with Galileo therapy (by the way, the control group also performed identical exercises without Galileo vibration) - yet the effects with Galileo are sometimes twice that high as without Galileo.

Above all, the performance was significantly increased (here about 30% increase over 4 weeks Galileo therapy).

However, for every 10% increase in this population, reducing the risk of complications and transplantation by 32% means that Galileo-assisted therapy reduces this risk by about 60% within 4 weeks!



[J Heart Lung Transplant](#). 2015 Nov;34(11):1455-61. doi: 10.1016/j.healun.2015.07.002. Epub 2015 Jul 22.

Effects of complementary whole-body vibration training in patients after lung transplantation: A randomized, controlled trial.

[Gloeckl R¹](#), [Heinzelmann I²](#), [Seeberg S²](#), [Damisch T²](#), [Hitzl W³](#), [Kenn K⁴](#).

BACKGROUND:

In recent years, some studies have shown that whole-body vibration training (WBVT) may be a beneficial training mode in patients with chronic obstructive pulmonary disease (COPD). However, the effects of WBVT in patients after lung transplantation (LTx) have not yet been investigated.

METHODS:

Eighty-three LTx patients (56 ± 7 years of age, 51% male, 10 ± 12 weeks post-LTx, forced expiratory volume in 1 second [FEV1] 68 ± 20 percent predicted [% pred], baseline 6-minute walk distance [6MWD] 350 ± 120 meters) admitted to a 4-week inpatient multidisciplinary program of pulmonary rehabilitation (PR) performed supervised endurance and strength training on 5 days per week.

In addition, patients were randomly assigned to 1 of 2 supervised intervention groups on 3 days/week: (1) 4×2 minutes of bilateral dynamic squat exercises on a side-alternating vibration platform at 24 to 26 Hz (WBVT); and (2) a control group (CON) with the same amount of exercise time on the floor.

RESULTS:

Seventy patients completed the study (WBVT: $n = 34$; CON: $n = 36$). Improvement in 6MWD was significantly ($p = 0.029$) higher in the WBVT group (83.5 meters [95% CI 65.4 to 101.7]) compared with the CON group (55.2 m [95% CI 37.5 to 72.8]).

Also, peak work rate increased significantly ($p = 0.042$) more in the WBVT group (16.8 W [95% CI 13.5 to 20.5]) than in the CON group (12.6 W [95% CI 9.0 to 16.1]). No adverse events related to the intervention occurred during the study.

CONCLUSIONS:

A complementary WBVT on top of conventional endurance and strength training seems to be a feasible and safe exercise modality in patients after LTx. Furthermore; it may even enhance the benefits of a comprehensive PR on exercise capacity.

KEYWORDS:

Exercise; lung transplantation; pulmonary rehabilitation; training; vibration training; whole-body vibration training

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