

Galileo Research Fact Sheet #174: Can Galileo Therapy in COPD improve Balance more than Balance Training?

Galileo
Therapy

Can Galileo Therapy in COPD improve Balance more than Balance Training ?

Die answer is: YES

This study compared the effects of Galileo Therapy on balance in COPD patients (age 50-80) compared to traditional balance training. Galileo group: 4 exercises, 2x1min each, 5-26Hz, Pos.2-3, 3 weeks, 3/week, Controls: identical exercises on balance pad. Compared to control the Galileo group showed significant improvements in balance parameters of up to +23% after only 9 sessions over a period of 3 weeks.

Stance	Control	Galileo
Romberg Stance	-10%	8%
semi-Tandem Stance	0%	22%
1-Leg Stance	0%	23%

Gloeckl R, Schneeberger T, Leitl D, Reinold T, Nell C, Jarosch I, Kenn K, Koczulla AR: Whole-body vibration training versus conventional balance training in patients with severe COPD-a randomized, controlled trial.; Respir Res, 22(1):138, 2021; PMID: 33947416, GID: 5420

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This study compared the effects of Galileo Therapy on balance parameter sin COPD patients (age 50-80, GOLD III-IV) compared to traditional balance training. During a well-established 3-week intensive inpatient therapy concept (6 therapy days per week) 3 times per week an additional 20 minutes balance therapy session was added. Two groups used identical exercises, each 1 minute, repeated twice with 1 minute break in-between either on Galileo or on a standard balance pad. 4 Exercises were used: dynamic squat (Pos. 2-3, 18-26Hz), dynamic heel raises (Pos. 2-3, 18-26Hz), static 1-legged stance (Pos. 0, 5-15Hz) and a dynamic Lunge (Pos. 2-3, 18-26Hz). The used exercises therefore represent a combination of balance and muscle power-oriented therapy goals.

Outcome parameters were focusing on balance (e.g. path length in Romberg, semi-tandem and 1-legged stance) and performance parameters (jump power, 2MWD, CRT) (#GRFS156). Balance results were explicit: insufficient result for traditional balance exercises but significant positive effects in the Galileo group with improvements of up to +23% - even though much balance was not the only target of the exercises.

These results are remarkable considering a total active exercise duration of only 9 x 8 minutes over a period of 3 weeks, compared to the intensive 6-days per week therapy concept it was added to.

Therapy - COPD, Balance
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