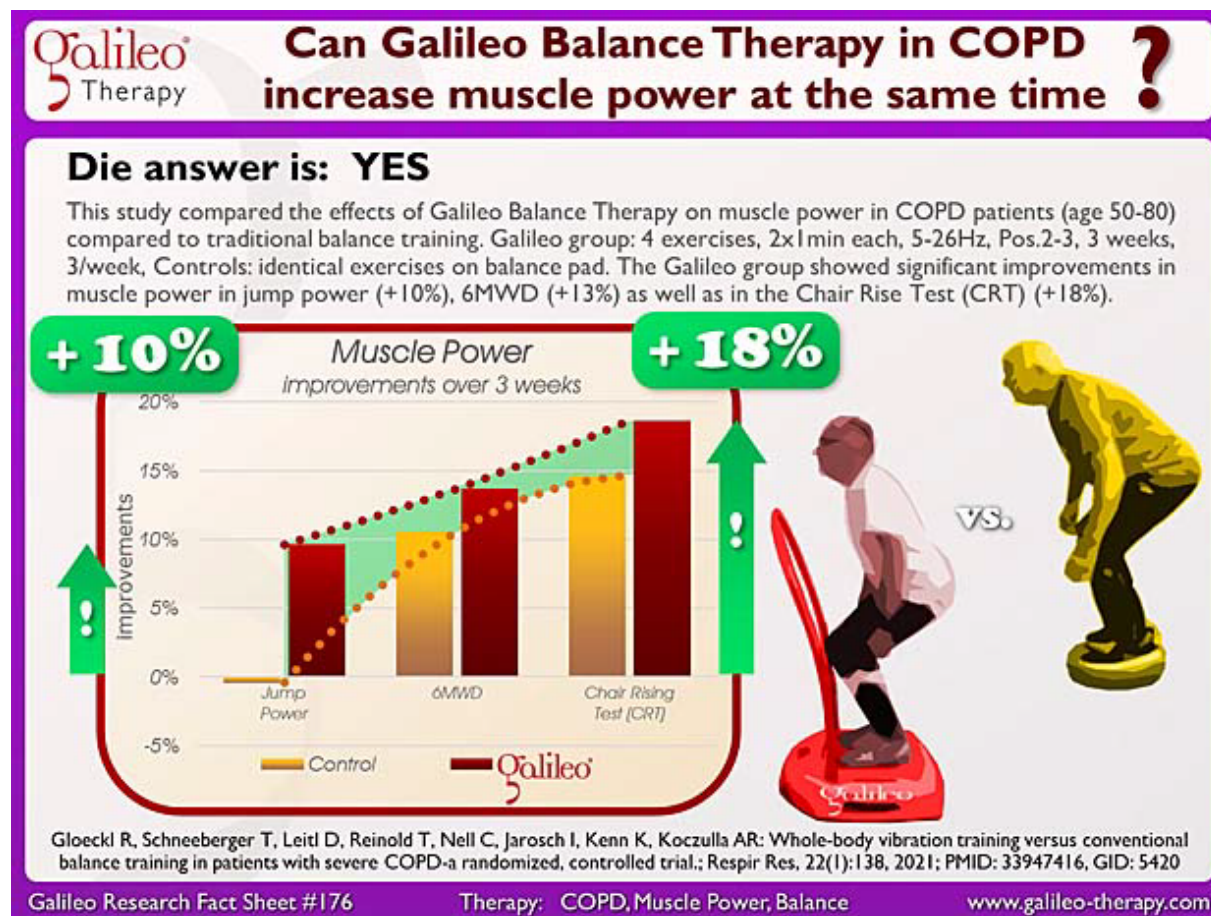


Galileo Research Fact Sheet #176: Can Galileo Balance Therapy in COPD increase muscle power at the same time?



This study compared the effects of Galileo Balance oriented Therapy on balance parameters in 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) (#GRFS174) and performance parameters (jump power, 2MWD, CRT). The results on muscle power in the Galileo group were substantial with improvements of +18% in the chair rise (CRT) and +15% in jump power.

The observed average increase of jump power by 2.3 W/kg is equivalent to the expected loss due to aging in fit individuals over a period of 3 years – 3 years of muscle aging could be compensated in only three weeks with an active training time of 9 x 8 minutes!

While Galileo Therapy was only about 25% more effective for more endurance-oriented tests (6-minutes walking distance, 6MWD or multiple chair rise, CRT) compared to traditional balance training, there were no effects at all on jump power for the traditional balance training. The 10%

gain with Galileo however are important for every-day tasks like stair climb, getting up fast from the chair but also efficient walking.

These results are remarkable considering that this was possible as an add-on therapy to intensive 6-days per week therapy concept, and considering that improvement of balance (#GRFS174) was the main goal.

Therapy - COPD, Power, Balance

#GRFS176 #GRFS