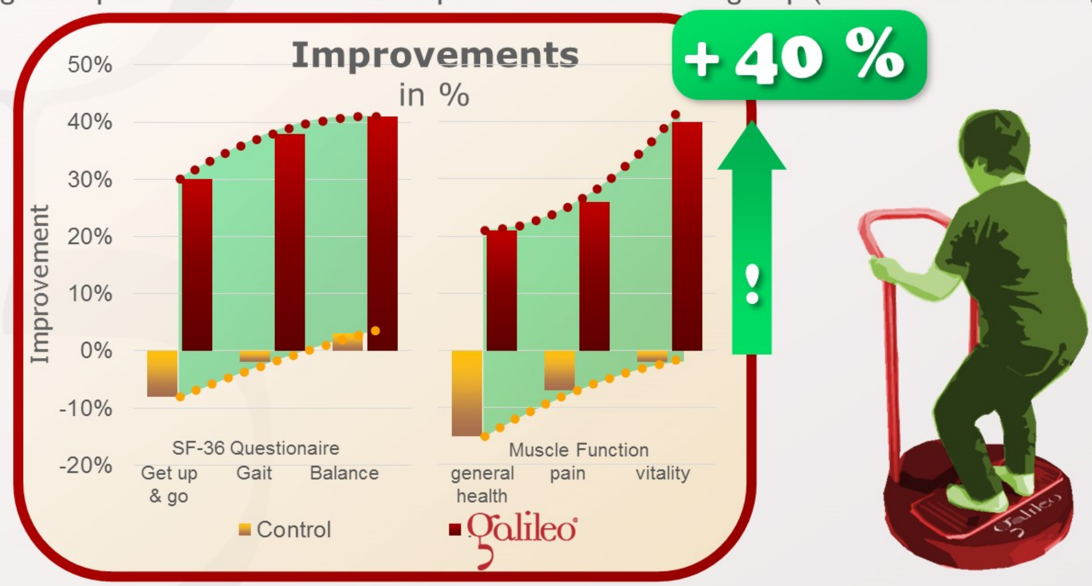
Can Galileo Training improve balance, muscle power and quality of life in elderly?

Galileo Training

The answer is: YES

This study shows the effects of Galileo Training on muscle function and quality of life in a nursing home community (2x1 min. 10Hz, 2x1 min. 26Hz, 3/week, 6 weeks). Both groups received additional 3*10 min. per week physiotherapy (gait, balance, strength). The Galileo Training group showed significantly higher improvements in all tested aspects than the control group (about +40% on average).



Bruyere O, Wuidart MA, Di Palma E, Richy F, Reginster JY, et.Al.: Controlled Whole Body Vibration to decrease Fall Risk and improve health-related Quality of Life of Nursing Home Residents; Arch Phys Med Rehabil., 86(2):303-7, 2005; PMID: 15706558; GID: 272

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To compensate for two of the major negative aspects of the aging process, this study focused on Flexibility and muscle power.

Galileo Training at 10Hz (flexibility/balance) and at 26Hz (muscle power) was performance 3 times a week over 6 weeks for only 2 times one minutes each.

In addition, the Galileo Group and the control group receive standard physiotherapy 3 times 10 minutes per week focusing on gait, balance and strength.

While the Galileo Group showed significant improvements of in average 40% in all tested aspects like muscle function (gait, timed up and go, balance) and quality of life (pain, social interaction), the control group showed negative effects.

This study is a nice example of how physical activity not only has an effect on muscle function but also, on participants mental status and quality of life in general.

Arch Phys Med Rehabil. 2005 Feb;86(2):303-7.

Controlled whole body vibration to decrease fall risk and improve health-related quality of life of nursing home residents.

Bruyere O[1], Wuidart MA, Di Palma E, Gourlay M, Ethgen O, Richy F, Reginster JY.

Abstract

OBJECTIVE: *To investigate the effects of whole body vibration in the elderly.*

DESIGN*: Randomized controlled trial.*

SETTING: *Nursing home.*

PARTICIPANTS: *Forty-two elderly volunteers.*

INTERVENTIONS: *Six-week vibration intervention plus physical therapy (PT) (n=22) or PT alone (n=20).*

MAIN OUTCOME MEASURES*:*

We assessed gait and body balance using the Tinetti test (maximum scores of 12 for gait, 16 for body balance, 28 for global score), motor capacity using the Timed Up & Go (TUG) test, and health-related quality of life (HRQOL) using the Medical Outcomes Study 36-Item Short-Form Health Survey (SF-36).

RESULTS:

After 6 weeks, the vibration intervention group improved by a mean +/- standard deviation of 2.4+/-2.3 points on the gait score compared with no score change in the control group (P <.001). The intervention group improved by 3.5+/-2.1 points on the body balance score compared with a decrease of 0.3+/-1.2 points in the control group (P <.001). TUG test time decreased by 11.0+/-8.6 seconds in the treated group compared with an increase of 2.6+/-8.8 seconds in the control group (P <.001). The intervention group had significantly greater improvements from baseline on 8 of 9 items on the SF-36 compared with the control group.

CONCLUSIONS:

Controlled whole body vibration can improve elements of fall risk and HRQOL in elderly patients.

PMID: 15706558 DOI: 10.1016/j.apmr.2004.05.019