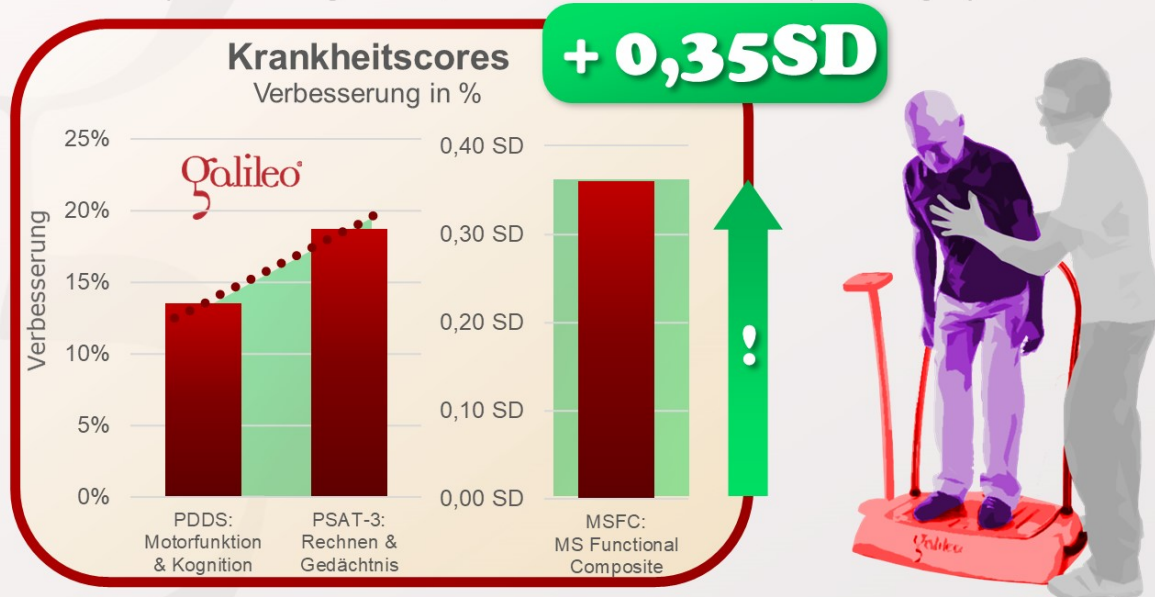


Can Galileo Training improve the disability status of MS patients ?

The answer is: YES

This study investigated the effects of 8 weeks of Galileo Training on different disease related scores (PDDS, MSCF) in MS (Multiple Sclerosis) patients (20Hz, pos. 1.5, 5*1 min., 3/week, 8 weeks, 20° bent legs). The results show not only improvements in PDDS and PSAT-3 by up to 18% but also an increase in HSFC (MS Functional Composite: walking distance, hand function, calculation test) in average by 0.36SD.



Yang F, Estrada EF, Sanchez MC: Vibration training improves disability status in multiple sclerosis: A pretest-posttest pilot study.; J Neurol Sci, 369():96-101, 2016; PMID: 27653872; GID: 4248

This study shows the positive effects of only 8 week (24 session of 5*1 minutes) Galileo Training on muscle function, cognition and disability status in MS (Multiple Sclerosis) patients (20Hz, Position 1.5, 20° bent legs, 5 * 1 minutes, 3 session per week over 8 weeks, see also [#GRFS82](#)).

The results show significant improvements in of disease related symptoms assessed by different scoring methods like PDDS (Patient Determined Disease Steps) und MSFC (Multiple Sclerosis Functional Composites) – both assessments which document the disease related disabilities.

PDDS as well as the MS specific MSFC showed significant improvements of up to 18% in PDDS as well as +0.36 standard deviations (SD) in the MSFC.

The average MSFC values was 0 SD at the beginning of the study and 0.36 SD at the end of the study. 0 SD is equivalent to the average disability status of the reference group, while a value of 0.36 SD means a decrease in disease related disabilities.



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Vibration training improves disability status in multiple sclerosis: A pretest-posttest pilot study.

Yang F¹, Estrada EF², Sanchez MC².

The purpose of this study was to examine the effects of an 8-week vibration training program on changing the disability level in people with multiple sclerosis (MS).

Twenty-five adults with clinically-confirmed MS underwent an 8-week vibration training on a side-alternating vibration platform.

The vibration frequency and peak-to-peak displacement were set at 20Hz and 2.6mm, respectively. Prior to and following the training course, the disability status was assessed for all participants characterized by the Patient Determined Disability Steps (PDDS) and MS Functional Composite (MSFC) scores.

The training program significantly improved the PDDS (3.66 ± 1.88 vs. 3.05 ± 1.99 , $p=0.009$) and the MSFC scores (0.00 ± 0.62 vs 0.36 ± 0.68 , $p < 0.0001$).

All three MSFC components were improved: lower extremity function (9.37 ± 4.92 vs. 8.13 ± 4.08 s, $p=0.011$), upper extremity function (dominant hand: 27.81 ± 5.96 vs. 26.20 ± 5.82 s, $p=0.053$; non-dominant hand: 28.47 ± 7.40 vs. 27.43 ± 8.33 s, $p=0.059$), and cognitive function (30.55 ± 13.54 vs. 36.95 ± 15.07 points, $p=0.004$).

Our findings suggested that vibration training could be a promising alternative modality to reduce the disability level among people with MS.

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