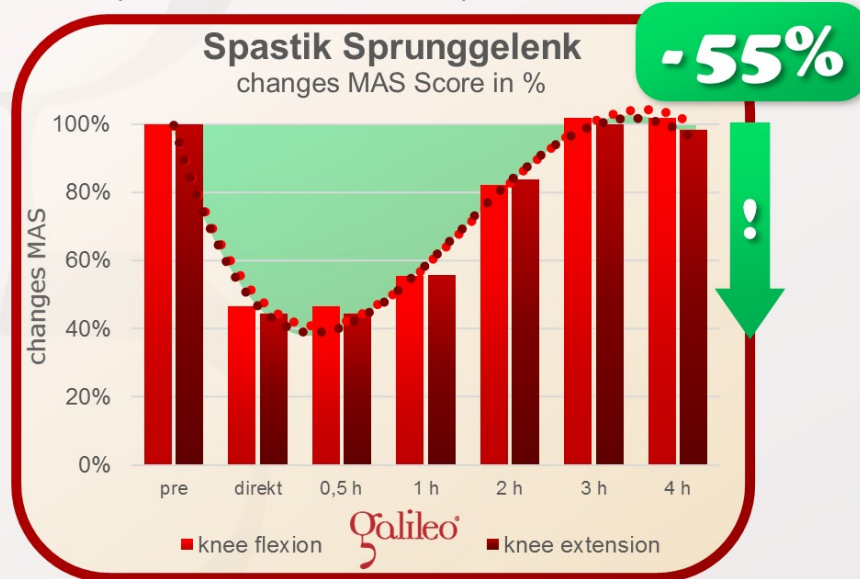


# Can 20 minutes Galileo Training decrease spasticity in Cerebral Palsy ?

## The answer is: YES

This study examined the immediate effect of 20 minutes Galileo Training (20Hz, pos. 2, 10 minutes, 30° squat) on ankle flexor spasticity in kids with Cerebral Palsy (CP, GMFCS level 1-4, age 3-14). Participants were separated into a knee flexion and a knee extension spasticity group. In average spasticity at the ankle joint was decreased by 55% and this effect lasted up to 3 hours after the end of the 20 minutes Galileo therapy.



Park C, Park ES, Choi JY, Cho Y, Rha DW: Immediate Effect of a Single Session of Whole Body Vibration on Spasticity in Children With Cerebral Palsy.; Ann Rehabil Med, 41(2):273-278, 2017; PMID: 28503461; GID: 4447

### Reduction of spasticity as well as the increase in muscle function

(#GRFS56, #GRFS51, #GRFS30, #GRFS13) are one of the key aspects in the application of Galileo Training in therapy for spinal cord injury or as in this case for cerebral palsy (CP). This study from Korea examined the immediate effect of 2 sessions of 10 minutes Galileo Training on the ankle spasticity. A very easy set-up was used: 30° squat, 20Hz, foot position 2. 2mm for 10 minutes with 1 minute's rest in between.

Two groups were selected: one with knee extension and one with knee contraction spasticity. In average spasticity was decreased by 55° and the effect lasted for about 1 hour before it started to decrease. About 3 hours after the intervention the effect was gone.

This is a quite typical example for effects of Galileo Training on spasticity. One of the reasons for this is the reduction of spinal excitability (#GRFS37).

Another Galileo Training exercise that is quite effective is in a sitting position. Increased trunk control can be achieved by sitting on Galileo (preferably using a Stool on top of the device). In most cases spasticity is decreased in arms and legs...



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## **Immediate Effect of a Single Session of Whole Body Vibration on Spasticity in Children With Cerebral Palsy.**

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### **Abstract**

#### **OBJECTIVE:**

To investigate the immediate effect of a single session of whole body vibration (WBV) on lower extremity spasticity in children with cerebral palsy (CP).

#### **METHODS:**

Seventeen children with spastic CP were included. A single session of WBV was administered: 10-minute WBV, 1-minute rest, and 10-minute WBV. The effects of WBV were clinically assessed with the Modified Ashworth Scale (MAS) and Modified Tardieu Scale (MTS) before and immediately, 30 minutes, 1 hour, 2 hours, 3 hours, and 4 hours after WBV.

#### **RESULTS:**

Spasticity of the ankle plantar flexor, as assessed by MAS and MTS scores, was reduced after WBV. Post-hoc analysis demonstrated that, compared to baseline, the MAS significantly improved for a period of 1 hour after WBV, and the R1 and R2-R1 of the MTS significantly improved for a period of 2 hours after WBV.

#### **CONCLUSION:**

A single session of WBV improves spasticity of ankle plantar flexors for 1-2 hours in children with CP. Future studies are needed to test whether WBV is an effective preparation before physiotherapy and occupational therapy.

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