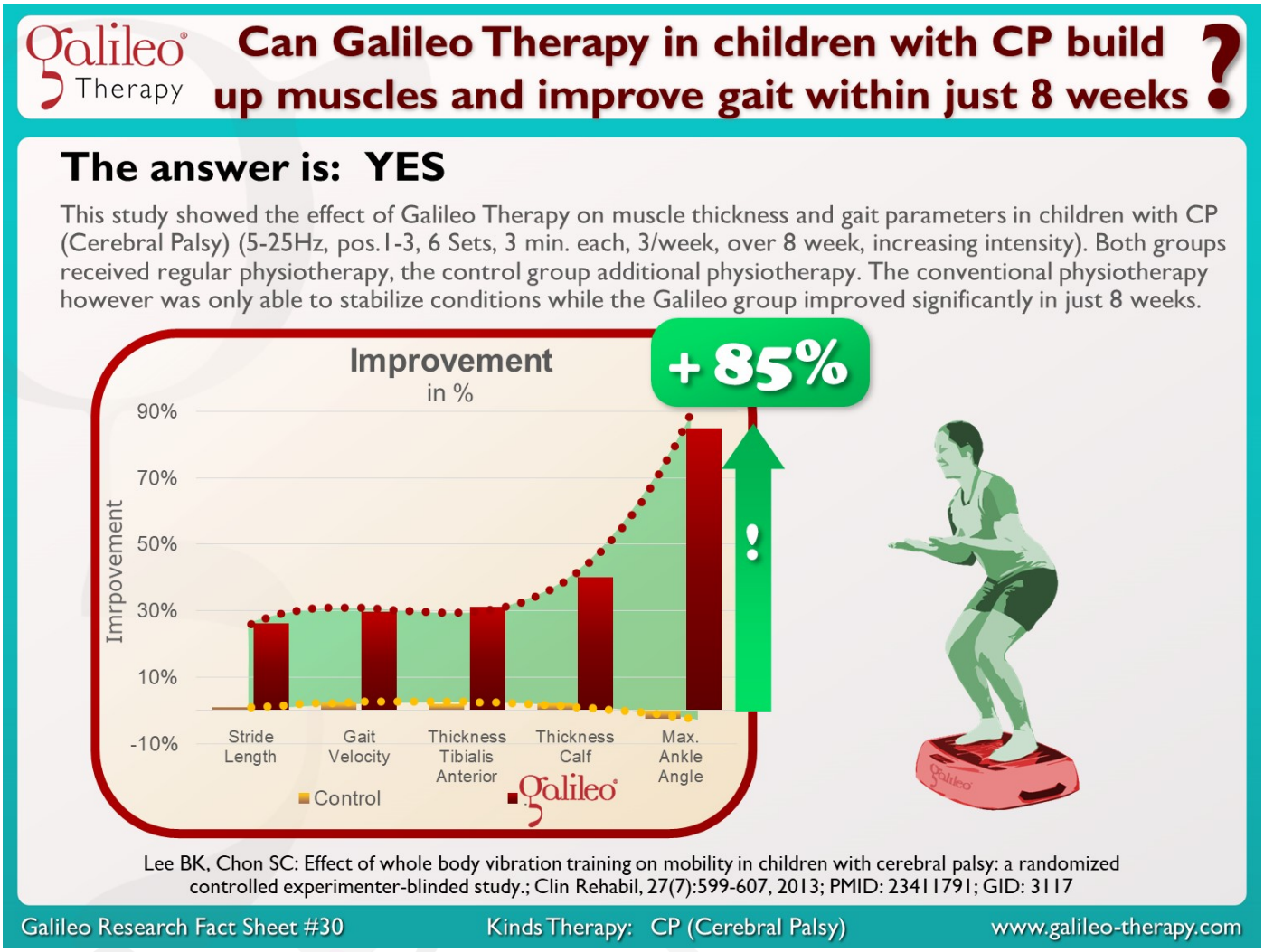

This study (as well as the "Cologne concept") is a wonderful example of what can be achieved in a short time with Galileo therapy.

However, two things are important: the therapy must be continuously adapted to the abilities of the child in order to achieve the best possible therapeutic effect (in the study, for example, the intensity of the muscle building exercises at high frequencies (> 20Hz) continuously increased over the 8 weeks)

And: a sustained therapeutic effect can only arise if the functions newly established or improved by Galileo Therapy are also integrated directly into everyday movements in the other therapy.

Why is that so important? For example, although Galileo Therapy can establish and / or improve neurological control, muscle chain coordination, muscle strength and performance, balance, etc. to be able to stand and walk, the movement pattern "walking" still needs training.

Galileo Therapy is a very efficient tool to very efficiently establish or improve many aspects of the neuromuscular system in a short time, but only develops its full potential in therapy if it is optimally integrated into it.

Because the newly developed skills must also be integrated into the everyday movement - in this way use (and train) of everyday movements this function and thus bring the long-term improvement.

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Effect of whole body vibration training on mobility in children with cerebral palsy: a randomized controlled experimenter-blinded study.

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OBJECTIVE:
To evaluate ambulatory function and leg muscle thickness after whole body vibration training in children with cerebral palsy.

DESIGN:
A block randomized controlled trial with two groups.

SETTING:
Physical therapy department laboratory.

SUBJECTS:
A total of 30 (15 experimental, mean (SD) age 10.0 (2.26) years and 15 control, 9.6 (2.58)) children with cerebral palsy, 15 males and 15 females.

INTERVENTIONS:
The experimental group underwent whole body vibration training combined with conventional physical therapy training; the control group underwent conventional physical therapy training three days a week for eight weeks respectively.

MAIN OUTCOME MEASURES:
Three-dimensional gait analyses and ultrasonographic imaging of the leg muscles were measured at pre- and post-test of intervention for eight weeks.

RESULTS:
Whole body vibration training resulted in significantly better gait speed (P = 0.001, from 0.37 (0.04) m/s to 0.48 (0.06)), stride length (P = 0.001, from 0.38 (0.18) m to 0.48 (0.18)) and cycle time (P = 0.001, from 0.85 (0.48) s to 0.58 (0.38)) in the experimental group compared with that in the control group.

The ankle angle (P = 0.019, from 7.30 (4.02) degree to 13.58 (8.79)) also showed a remarkable increase in the experimental group, but not the hip (P = 0.321) and knee angle (P = 0.102). The thicknesses of the tibialis anterior (P = 0.001, 0.48 (0.08) mm to 0.63 (0.10)) and soleus (P = 0.001, 0.45 (0.04) mm to 0.63 (0.12)) muscles were significantly higher in the experimental group than in the control group.

However, no significant effect was observed in the thickness of the gastrocnemius muscle (P = 0.645).

CONCLUSIONS:
These findings suggest that whole body vibration may improve mobility in children with cerebral palsy, probably through a positive effect on the leg muscles.

KEYWORDS:
Cerebral palsy; mobility; randomized trial; whole body vibration

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