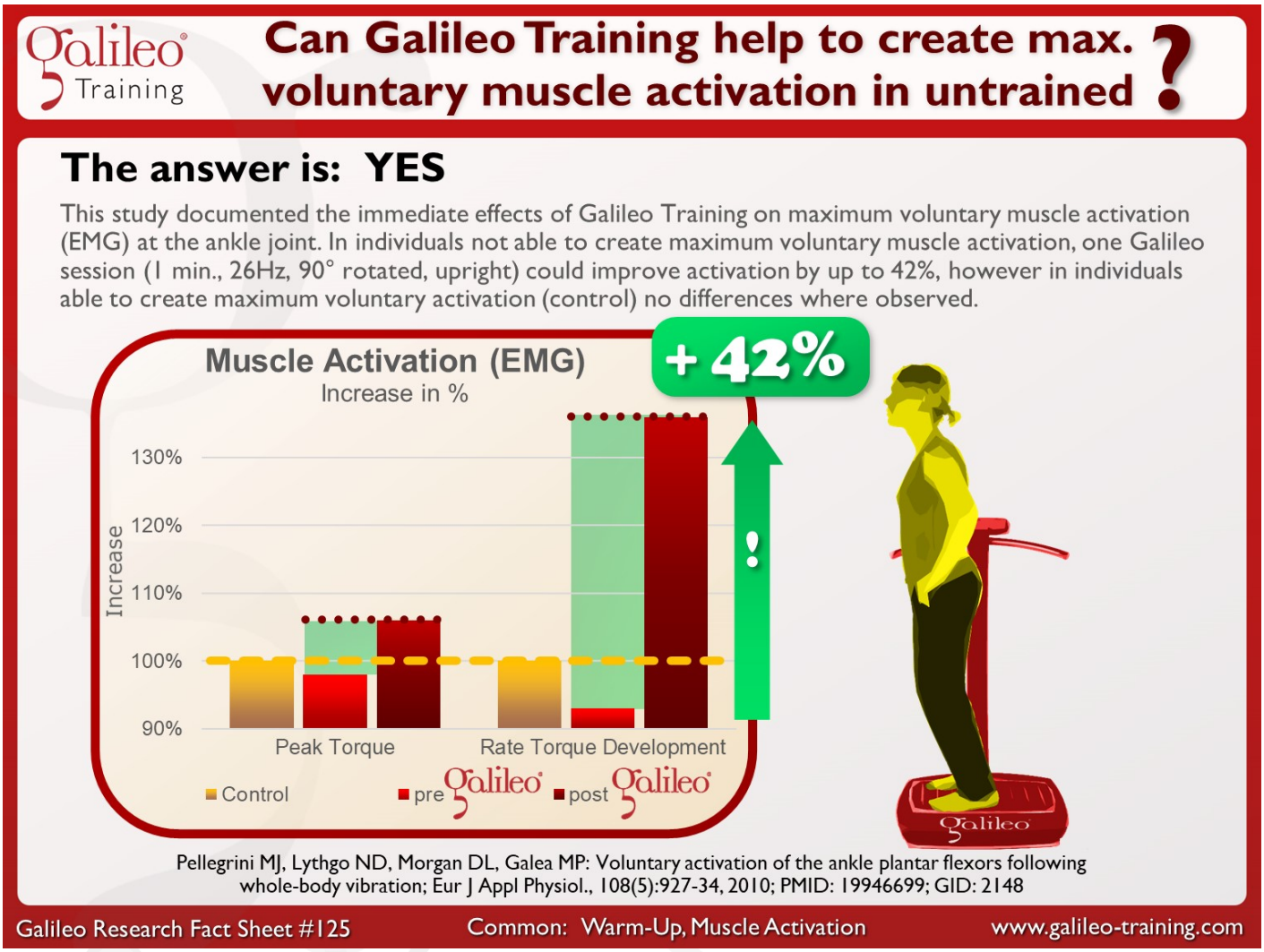

This study reported the immediate effects of 1 minute of Galileo Training at 26Hz on the maximum voluntary activation of the muscles of the ankle.

Two groups where selected: The control group was able to immediately perform a maximum voluntary contraction (trained); the other (untrained) was not.

EMG measured the maximum voluntary contraction on an isokinetic machine with and without maximum electro stimulation.

While 1 minute of Galileo Training did not show any changes in the control group, the Galileo group showed improvements in maximum voluntary contraction of up to 42% -

The highest changes where observed in the early phase of activation and therefore in the Rate of Torque Development (RTD) which is very relevant in training sciences.

This shows that warm-up with Galileo can be used very efficiently also especially in untrained individuals.

Eur J Appl Physiol. 2010 Mar;108(5):927-34. doi: 10.1007/s00421-009-1304-2. Epub 2009 Nov 28.

Voluntary activation of the ankle plantar flexors following whole-body vibration.

Pellegrini MJ[1], Lythgo ND, Morgan DL, Galea MP.

This study investigated the effect of whole-body vibration (WBV) on the voluntary activation of the ankle plantar flexors. Twelve healthy young adults were randomly exposed to two treatments on separate occasions.

The first (non-WBV) involved stretching of the plantar flexors at end range of dorsiflexion for five 1-min bouts. The second involved the same stretch with WBV (26 Hz) for five 1-min bouts.

Attempted maximal voluntary contractions (AMVCs) of the plantar flexors were performed on an isokinetic dynamometer (30 degrees s(-1)) before and after each treatment.

A twitch interpolation technique was used to investigate voluntary activation. Post-treatment data were normalized against pre-treatment data. Subjects were classified as maximally (n = 6) or sub-maximally (n = 6) activated using the pre-treatment twitch interpolation data.

The effects of WBV were assessed by repeated measure (RM) MANOVA. After WBV, the group of subjects classified as sub-maximally activated increased peak voluntary torque and rate of voluntary torque production ($P < 0.05$), whereas angular displacement to peak torque reduced ($P < 0.05$); i.e. peak torque was produced at a longer muscle length.

No significant non-WBV treatment effects were found for this group. No significant WBV effects were found for the group of subjects classified as maximally activated.

This study found that the response to WBV was dependent on the level of voluntary activation of the ankle plantar flexors during a set of AMVCs.

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