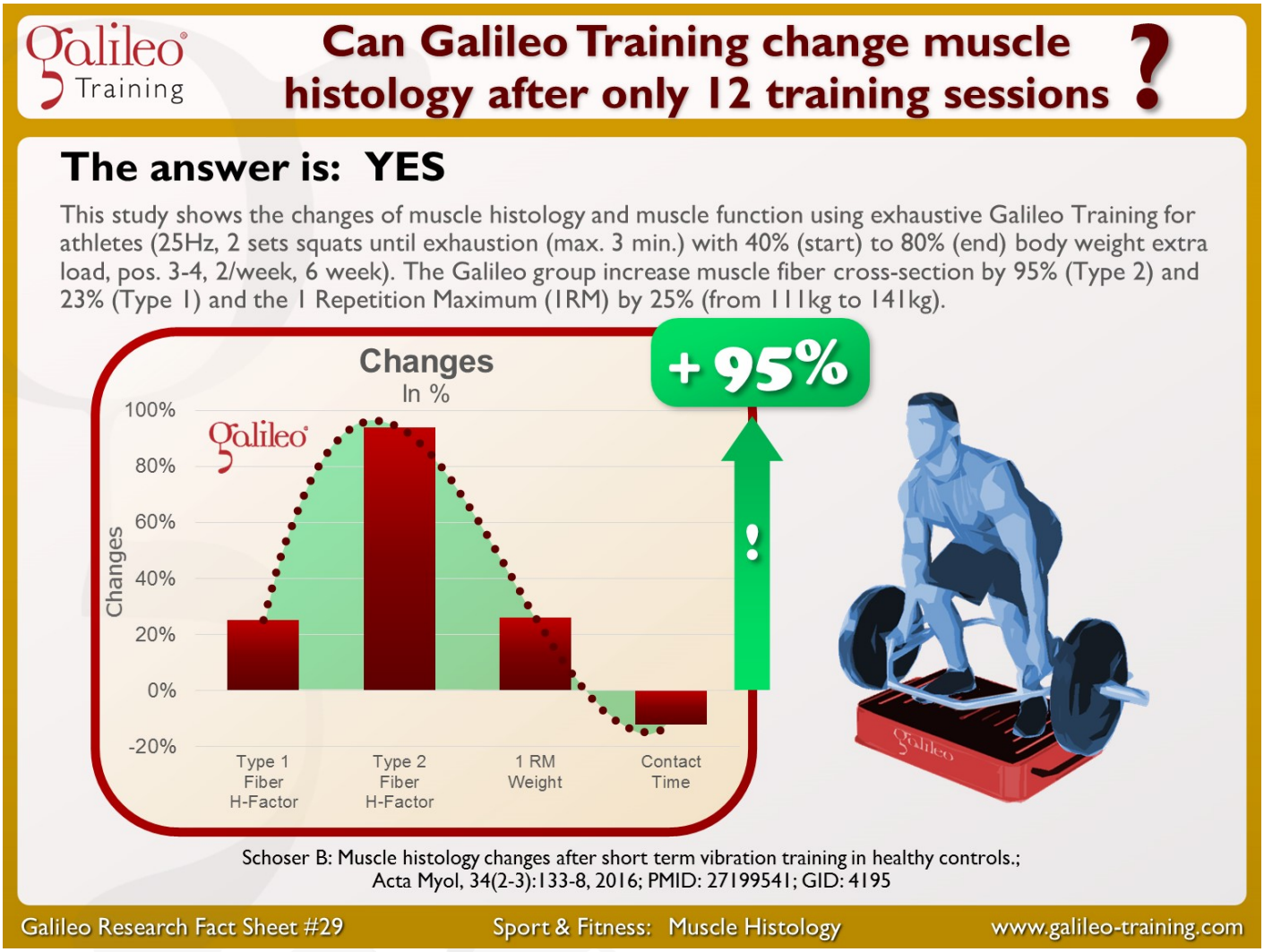

This study shows nicely the effects on the muscle fiber level which explain why Galileo Training at high frequencies (25-40Hz) increase muscle function and muscle power.

Interestingly not only the fast twitch fibers (type 2 fibers, on which Galileo Training with its fast movements obviously focuses) increase their cross-sectional area (by 95% in this study) but also the slow-twitch fibers (type 1 fibers, increase by 25%) profit.

This is also one of the explanations why exhaustive Galileo Training at high frequencies has also a beneficial effect on endurance (#GRFS12, #GRFS12).

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Muscle histology changes after short term vibration training in healthy controls.

Schoser B[1].

Abstract

In search for additional counter measures of muscle atrophy vibration exercise training may have substantial effort for patients with neuromuscular disorders.

To cover safety aspects and obtain muscle morphology data, a pilot study was performed in eleven healthy men. Countermovement jump, squat jump, drop jump and one repetition maximum test (1RM) were performed on a force platform before and after a 6 week training period. No severe side effects were found. Repeated needle muscle biopsies of the vastus lateralis muscle revealed a selective pre- to post-training type-2 myofiber hypertrophy of up to 50 %.

The hypertrophy factors were 160 and 310, for type-2 myofibers. The mechanography system showed a significant increase in the 1RM maximum weight lifted (pre: 111,8 kg ± 11,5; post: 140,9 kg ± 13,00; $p < 0,001$).

Vibration exercise is a safe and effective technique which desires further approval as counter measure in different types of neuromuscular atrophy.

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