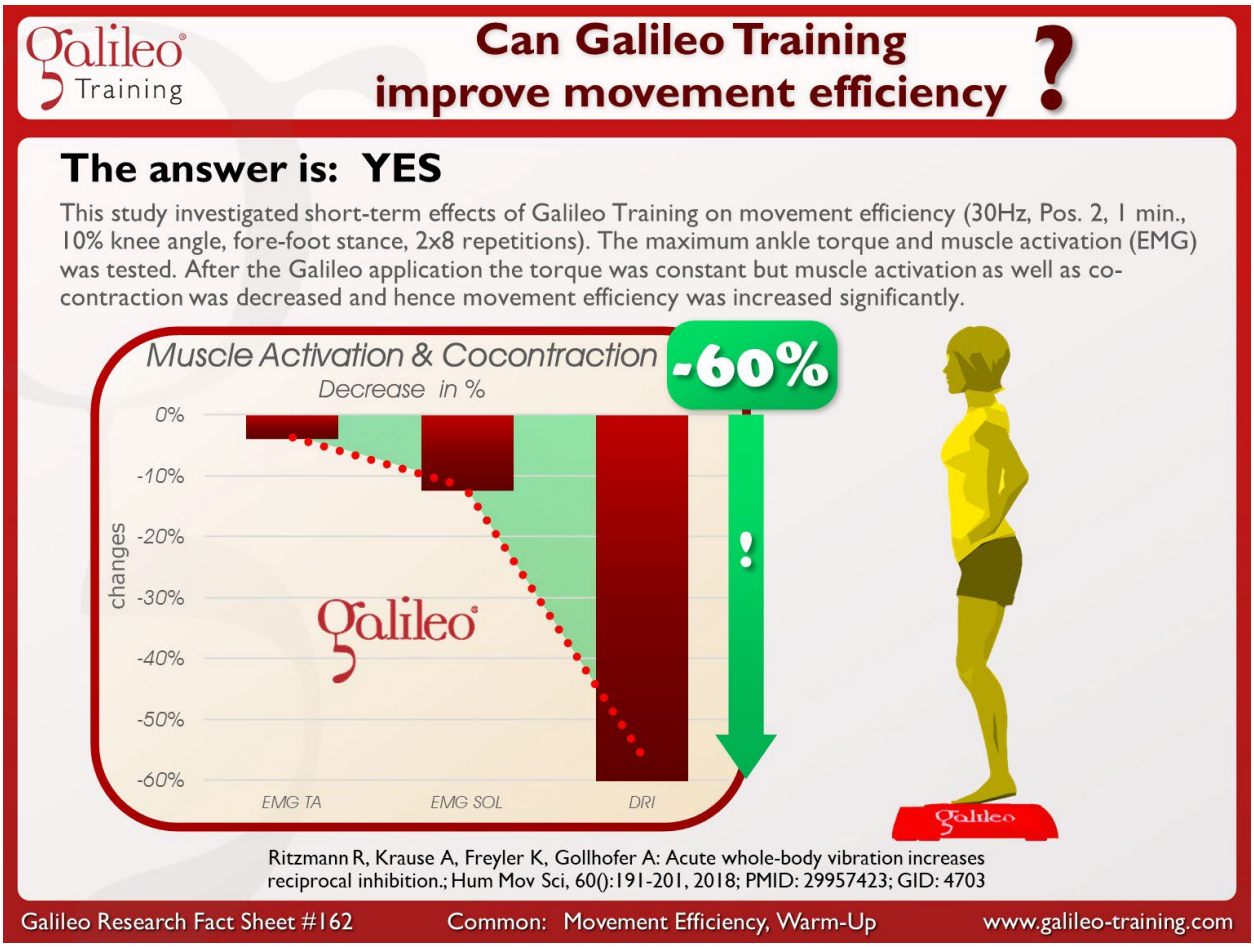
Galileo Research Fact Sheet #162: Can Galileo Training improves movement efficiency?



This basic study investigated the short-term effects of Galileo Training on movement efficiency. To assess this, the maximum joint torque, muscle activation (EMG), contraction and the disynaptic reciprocal inhibition (DRI, an objective measure for movement efficiency) was measured. All measurements were performed before and after the Galileo application (30Hz, pos. 2, 10° knee-angle, fore-foot stance, 1 min., 2 sets with 8 repetitions each). While torque stayed constant the used muscle activation was decreased (-4% and -12%) but especially DRI was reduced by -60% - therefore an identical muscle function / muscle output was generated using much less muscle activation and less contraction which means that the efficiency of the movement increased significantly. A reduction of contraction is a typical training effect, because contraction means a higher joint security in theory but it also means less power output by increased muscle forces, which makes the mo0vement much less efficient. The results of the study therefore explain why Galileo Training can be used so effectively for coordination training as well as for warm-up.

Common - Movement Efficiency, Warm-Up
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