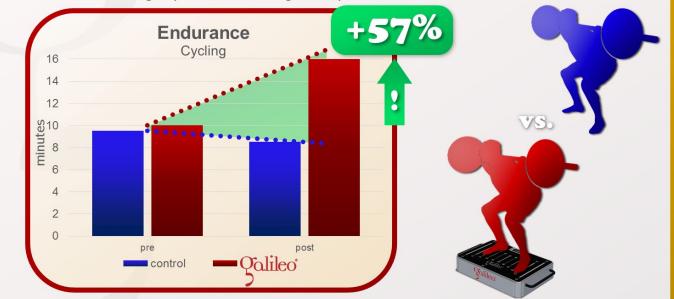
Can Galileo Training increase endurance

The answer is: YES

Valileo

Training

This study shows the effect of 16 Galileo Sessions (8 weeks, 30Hz, start 60% body weight, plus Occlusion) fro a group of young women compared to identical resistance training without vibration. The Galileo group increased the resistance by 85%, endurance by 57%, peak power on the ergometer by 9% (Wingate Rest); The resistance control group did not show a significant positive effect.



Item F, Denkinger J, Fontana P, Weber M, Boutellier U, Toigo M: Combined Effects of Whole-Body Vibration, Resistance Exercise, and Vascular Occlusion on Skeletal Muscle and Performance.; Int J Sports Med, 32(10):781-7, 2011; PMID: 21870317; GID: 2690

Galileo Research Fact Sheet #12

Sports & Fitness: Endurance

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Int J Sports Med. 2011 Oct;32(10):781-7. doi: 10.1055/s-0031-1277215. Epub 2011 Aug 25.

Combined effects of whole-body vibration, resistance exercise, and vascular occlusion on skeletal muscle and performance.

Item F1, Denkinger J, Fontana P, Weber M, Boutellier U, Toigo M.

Abstract

The purpose of this study was to evaluate the effects of a new high-intensity training modality comprised of vibration exercise with superimposed resistance exercise and vascular occlusion (vibroX) on skeletal muscle and performance. Young untrained women were randomized to either train in a progressive mode on 3 days per week for 5 weeks (N=12) or to maintain a sedentary lifestyle (N=9). VibroX increased peak cycling power (+9%, P=0.001), endurance capacity (+57%, P=0.002), ventilatory threshold (+12%, P<0.001), and end-test torque (+15%, P=0.002) relative to the sedentary group. Training load increased by 84.5% (P<0.001) after vibroX.

The increases were paralleled by increases in myosin heavy chain type 1 vastus lateralis muscle fiber cross-sectional area (+14%, P=0.031) and proportion (+17%, P=0.015), thigh lean mass (+4%, P=0.001), capillary-to-fiber ratio (+14%, P=0.003), and cytochrome c oxidase activity. Conversely, maximal values for oxygen consumption, cardiac output, isokinetic leg extension power and jumping power remained unaffected. Notably, vastus lateralis muscle adaptations were achieved with a very low weekly training volume.

We conclude that vibroX quickly increases muscle (fiber) size, capillarization, and oxidative potential, and markedly augments endurance capacity in young women.

PMID: 21870317 DOI: 10.1055/s-0031-1277215