

## Effects of Whole-Body Electromyostimulation versus High-Intensity Resistance Exercise on Body Composition and Strength: A Randomized Controlled Study

This study compared the impact of WB-EMS and HIT workouts on body composition and leg and back strength in healthy and untrained males, aged 30-50. HIT has long been considered the “gold standard” of fitness when it comes to time efficiency, however it is less than appealing to most individuals who do not enjoy working out and/or are not in peak physical condition. Aside from that, the routines often utilize movements that are high impact, heavily affecting joints, at a very high level of intensity. Alternatively, WB-EMS puts close to no stress on the joints and can be utilized by people at any fitness level.

Researchers divided 57 men into 2 groups – one group participated in 16 weeks of HIT, the other participated in 16 weeks of WB-EMS. The HIT group exercised all main muscle groups and was set up as focus on time under tension\* (2 seconds concentric, 1 second isometric, 2 seconds eccentric), momentary muscle failure, superset variations and drop sets. The WB-EMS group also exercised all muscle groups for 20 minute sessions 2-3/wk, where all exercises consisted of 6 seconds of movement and 4 seconds of rest. \*\*Notice how a “time under tension” movement in the HIT group is timed similarly to those that your Manduu trainers may lead you through.

Lean body mass (muscle), leg strength, total body fat mass and back strength all improved significantly in both groups. The best part – no significant difference was found amongst these changes between the two groups! They saw essentially the same benefits to these 4 parameters in the men who worked out via HIT and the men that worked out via WB-EMS. That means that all those super fit, seemingly glutton-for-punishment HIT type people aren't the only ones who can reap those benefits of those crazy intense workouts. You can get the same kind of results by executing a 15 minute, zero impact, no weights necessary, experienced trainer guided Manduu workout just 2-3 times a week!