

TACSM Abstract

Effects of Negative Ion Energy Bands on Peak Anaerobic Capacity & Recovery

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ABSTRACT

PURPOSE: To study the effects of a commercially available negative ion “energy band” on peak anaerobic capacity and recovery. **METHODS:** Twenty one participants (age = 28.2 ± 5.2 yrs, ht = 172.1 ± 1.0 cm, wt = 83.3 ± 17.5 kg) completed two, 30-sec Wingate trials on a Monark 817E cycle ergometer while wearing either a True Power™ Energy Band (TB) (True Power LLC) or silver bracelet placebo (PB) (Hobby Lobby). Trial order was counterbalanced and each trial separated by approximately 1 week. Physical Activity Readiness Questionnaire (PAR-Q) and consent form were completed before testing, and participants were asked to refrain from consuming a heavy meal or caffeine at least 3 hours before testing. Wingate testing was preceded by a 5-min warm up consisting of cycling for 3 min at 50 rpm and 20% of prescribed Wingate load ($.086 \times$ body mass [kg]), and 5-sec sprints at 25%, 50%, 75%, and 100% of prescribed load every 30 sec. After resting 3 min, participants commenced Wingate testing. Recovery consisted of cycling 10 min at 50rpm and 20% Wingate load. HR and oxygen consumption were measured throughout testing using a HR monitor (Polar) interfaced to a metabolic system (Parvo Medics’ TrueOne 2400). RPE (Borg 6-20 Scale) was recorded immediately following Wingate test and at 5 and 10 min of recovery. **RESULTS:** There were no significant differences between each trial (TB vs. PB) for:

	TB	PB
O₂ Consumption (L/min)		
Rest	0.36 ± 0.07	0.34 ± 0.08
Post Wingate	1.84 ± 0.40	1.82 ± 0.40
5-min recovery	1.55 ± 0.36	1.55 ± 0.34
10-min recovery	1.48 ± 0.35	1.48 ± 0.35
Heart Rate (BPM)		
Rest	85.2 ± 12.8	84.0 ± 10.2
Post Wingate	164.5 ± 11.3	163.6 ± 15.7
5-min recovery	146.3 ± 15.0	144.0 ± 17.3
10-min recovery	144.7 ± 15.5	142.7 ± 17.9
RPE		
Post Wingate	18.0 ± 2.0	18.0 ± 2.1
5-min recovery	13.6 ± 2.5	13.0 ± 1.5
10-min recovery	12.1 ± 2.1	11.7 ± 1.6
Total Revolutions	39.7 ± 8.7	39.4 ± 8.7
Peak Revolutions/5 sec	10.1 ± 2.0	10.0 ± 2.2

CONCLUSION: It does not appear that True Power™ Energy Bands have any discernable effect on an individual's anaerobic capacity and recovery.

