

Effect of WB-EMS with isometric exercise on adipocytokine and body condition in abdominal obese men

Background: A whole body-electromyostimulation (WB-EMS) can provide electrical stimulation to wide area where several muscles can be trained simultaneously through wearing a garment using electrode system. Even though there is some evidence that WB-EMS improves body condition, the issues have not been confirmed that a dose-response effect exists between different impulse-intensity and how WB-EMS affects adipocytokine and anthropometric variables including body composition, waist circumference (WC), and thigh circumference (TC) in obese men.

Methods: 33 abdominal obese men (mean age=24.42; SD=2.28) were recruited. They provided written informed consent and participated in baseline testing on a range of anthropometric and blood sample measures. After taking baseline test, subjects were randomly assigned to one of four groups: Control (CON; n=9), low impulse-intensity (LII; n=9), mid impulse-intensity (MII; n=8) or high impulse-intensity (HII; n=7). From baseline, at Week 6 and at Week 12 anthropometric and adipocytokine measures were re-assessed. All of them were given a WB-EMS suit that fit their size, composed of a silicone conductive pa