

Effect of the Power Balance® Band on Static Balance, Hamstring Flexibility, and Arm Strength in Adults

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ABSTRACT

The purpose of this study was to determine the effect of Power Balance® bands on strength, flexibility, and balance. Strength and flexibility were measured using the MicroFit system. Strength was measured via a bicep curl and flexibility via a sit-and-reach. Balance was measured by the BIODEX System SD. There were four different conditions for the balance test: eyes open on a firm surface (EOFS), eyes closed on a firm surface (ECFS), eyes open on a foam surface (EOFoS), and eyes closed on a foam surface (ECFoS). There were 24 subjects used (10 males and 14 females). A counterbalance, double-blind, placebo, controlled within subjects design was used. Each of the subjects participated in three treatment sessions, consisting of Power Balance®, placebo band, and no band. An alpha level of $p \leq 0.05$ was set *a priori*. There were no significant differences in strength, flexibility, or balance with regard to the treatments used. There was a significant difference between the conditions in the balance test ($p = 0.000$): EOFS (0.51), ECFS (0.68), EOFoS (0.99), and ECFoS (2.18); however, these were independent of the treatment condition. There was also a significant difference in strength for gender (males – 41.67 ± 9.94 kg; females – 18.52 ± 6.69 kg) with a p value of 0.000. The results indicate that the Power Balance® bands did not have an effect on strength, flexibility, or balance.

