

EFFECTS OF MAXIMUM ISOMETRIC CONTRACTION ON EXPLOSIVE POWER OF LOWER LIMBS (JUMP PERFORMANCE)

Abstract

The aim of the research was to determine acute effects of maximal isometric contraction on explosive power of lower limbs (jump performance). Nine elite senior tennis players were taken as sample examinees for this research. Tennis players from this group had not had any severe injuries of trunk and lower limbs in the last six months. To assess explosive power, this research used variables for assessment of vertical and horizontal component of explosive power (high jump and long jump). Maximum isometric concentric contraction was used in a semi-squat exercise as an operator for stimulation of post-activation potentiation. There is a statistically significant difference with control variable of a vertical jump between a pre-activation and a post-activation attempt after time period of 60 and 90 seconds. With other control variable - horizontal jump - there is no statistically significant difference between a pre-activation and a post-activation jump.

Key words: *post-activation potentiation, contrast methods, tennis players*