

THE EFFECTS OF ISO-KINETIC EXERCISE PROGRAM ON THE KNEE FLEXING STRENGTH

Elvir Kazazović, Vahida Kozić, Erko Solaković, Lejla Šebić-Zuhrić

Faculty of Sport and Physical Education Sarajevo

Original scientific paper

Abstract

The goal of this research is the study of the maximum force moment, the full function, as well as the average flex muscle strength of the dynamic knee stabilizers. Fifteen elite soccer players of the first division and thirteen amateur soccer players participated in this study. The researcher subjects who participated in this research are University of Sport and Physical Education, Sarajevo, students (40 students total). The estimate of changes observed based on iso-kinetic exercises (concentric and eccentric) on muscle stabilizers of the knee was performed on all 40 subjects. Research subjects were divided in two groups: experimental and control. The maximum strength of dynamic stabilizers of the knee has been tested on iso-kinetic instrument (machine Biodex 3) at degree speeds between 60 degrees/s and 180 degrees/s. In addition to their regular classes at the University, the experimental group spent in additional exercise programs on Biodex 3 machines, for 12 weeks, 3 times a week. The results will show that the additional iso-kinetic exercise program on the said machines effectively improve the strength of the flex muscles of the knee.

Keywords: knee muscles, iso-kinetic training, effects