

THE COMPAREMENT OF LOWER LEG SPEED TT RESULTANT AT HANDBALL JUMP SHOTS DURING REBOUND AND LANDING, AS POSSIBLE ANTERIOR CRUCIATE LIGAMENT INJURY PREVENTION

Abstract

In this study we did comparative analysis of handball jump shots at goal by taping first federal league players. Jump shots are one of basic elements in handball techniques and have serious attention both in teaching and in training. To realise this project and to process video tape, we used three-dimensional kinematic analysis which enabled total speed TT counting of lower leg in knee joint of rebound-landing feet during handball throw jump shot: straight ahead, with drift (eret) and upward. The aim of this study was to, on the basis of obtained data on mechanical characteristics of knee joint and lower leg centre speed, determine statistically significant difference in speed TT resultant of lower leg (Voter) at rebound and landing during handball throw jump shot: straight ahead, with drift (egret) and upward, which will bring ACL injury prevention to a higher level. On the basis of research results and stated hypothesis we obtained facts that there are certain statistically significant differences in mechanical characteristics of knee joint and speed TT resultant of lower leg (Voter) at rebound and landing during all three handball jump shots so that hypothesis H_0 can be partially accepted. Statistically significant difference in lower leg centre total speed is determined during handball jump shot, straight ahead and upward jump shot; with drift (eret) and straight ahead, at rebound and landing. At the same time, there was not statistically significant difference in lower leg speed TT resultant during handball jump shot with drift and upward, at rebound and landing.

Key words: handball jump shots, lower leg, ACL prevention
