

RELIABILITY OF MYOTEST TESTED BY A COUNTERMOVEMENT JUMP

Abstract

Introduction: The only valid and objective way of assessing muscle strength is measurement with a dynamometer. From the biomechanical aspect, explosive strength is required in athletic sport disciplines like long jumping, high jumping and throwing. Particularly, in technical gestures like take off and landing in vertical jumping. The device "Myotest" (Myotest SA, Sion, Switzerland), enables technology and methodology to assess mentioned gestures. The measurement systems used for the data collection have to possess high sensitivity, reproducibility, transportability, and easiness of use by the coach or athlete. Aims: The main aim of actual research was to determine, by performing Countermovement Jumps (CMJ), whether "Myotest" is a reliable device which allows assessing and discriminate variables Height, Power, Force and Velocity. Methods: The sample of subjects consisted of 10 male students of the Faculty of Sport and Physical Education from Niš, randomly selected, practicing the different sport activities. Subjects performed five vertical jumps (CMJ), at the initial and the final measurement. Results: The value of Cronbach's Alpha coefficient indicates the high reliability of the repeated measurements (0.86). Conclusion: The device "Myotest" is a reliable and easy to handle. Its variety of protocols could be useful to the coaches, the athletes, the physicians and the patients in assessing of the explosive strength, i.e. in planning and implementation of the training and recovery programs.

Key words: *biomechanics, myotest, countermovement jump*
