

Summary.

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Technique Variability of the Triple Jump

My thesis deal with the problems of biomechanics of the triple jump. Few years ago the triple jump was very successful event in our country. The czech record in triple jump is 17, 53 m since 1988 held by Milan Mikuláš. The only other jumper who beated the 17 metres mark was Jiří Kuntoš in 1999 with the result 17, 29 m. I made an exploration of the studies dealing with the different aspects of the biomechanics of the triple jump in the theoretic part. I tried to suggest the integral view of these studies.

I made an analysis of the 8 attempts of the current czech triple jumpers. I compared the biomechanical aspects of the successful and unsuccessful attempts of each jumper. I analysed the video recording of the Czech indoor championship 2005 using the program APAS. I compared these biomechanical parametres: Time of support, performance in the triple jump (official and actual), phase distance, phase ratios, horizontal velocity of the touchdown and takeoff, lost of horizontal velocity, vertical velocity of touchdown and takeoff, touchdown velocity of CG, takeoff velocity of CG, height of CG in touchdown, amortization and takeoff, time of flights

I found out that the main deficit of the czech jumpers is in speed abilities and better effort distribution during the whole triple jump.

Evidently, the most important thing on upgrading the biomechanics at efficiency basis is to train the connecting of the individual jumps with constantly increasing velocity to prevent the fixation of jumping stereotype with the low velocity.

Keywords: The biomechanics, the triple jump, the performance.