

Abstract

Title: Post-activation potentiation (PAP) phenomenon – review and experimental verification

Objectives: Firstly, to compile the systematic review of up-to-date literature. Secondly, to develop method using force platform that will be applicable for PAP measurement during the counter-movement jump. Thirdly, to verify PAP by using the developed method in small group of volunteers.

Methods: Review part of the thesis was compiled according to analysis of up-to-date literature accessible from Charles University electronic system. The data from the analysis were used to develop method for measurement of PAP by using the force platform (Kistler) and activation of PAP phenomenon by series of squats with specific weight. The peak force and rate of force development were the monitored parameters. This method was applied on a group of volunteers.

Results: Results of experimental part of the thesis showed significant changes in monitored parameters and this change is consistent with current literature.

Keywords: post-activation potentiation, peak force, rate of force development, force platform