

The Optimal Waiting Time for Hamstring Peak Power after a Warm-Up Program with Static Stretching

B. Meric Bingul

*University of Kocaeli, School of Physical Education and Sport, 41360, Kocaeli, Turkey
E-mail: bergunmeric@gmail.com*

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ABSTRACT The purpose of the present study is investigation of an ideal waiting time for hamstring muscle peak torque after the warm up program with static stretching exercises. The thirteen male students from Kocaeli University, School of Physical Education and Sport Department participated to this study voluntarily. Five different warm-up protocols were randomly applied to the subjects. The first protocol was five minutes jogging and the second was five minutes jogging with static stretching. The other protocols were five minutes jogging with static stretching + three minutes, six minutes and nine minutes waiting times. Following each warm-up session, the subjects' hamstring muscle peak torque was tested on a Biodex system III dynamometer at angular velocities of 60 degree/second. Repeated measures of variance (ANOVA) in SPSS program were used to compare the data obtained from the five protocols. As a result of the study, the warm-up session that consisted of static stretching exercises has negative effects on hamstring peak power. However, this negative effect disappeared after the six minutes waiting time ($p < 0.05$).