

The Effects of Active and Passive Recovery on Performance in Women's Collegiate Basketball Athletes

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ABSTRACT

An athlete's ability to oxidize lactic acid at high rates through different forms of recovery can contribute to higher performance levels. Active recovery has been shown to result in a faster clearance rate of lactic acid, making it the preferred form of recovery when compared to a passive form of recovery. The purpose of this experiment was to analyze the effects of active and passive recovery periods between consecutive sprints and determine which produced faster sprint times from the participants. Seventeen female collegiate basketball athletes (19.71 ± 1.16 years of age; 67.59 ± 2.55 in.; 156.35 ± 24.11 lb.) were randomly assigned to one of two groups. Two days of testing were performed with two consecutive sprints performed on each day. The initial sprint, the length of the basketball court eight times, was used to build the lactic acid within the participant's bodies and the second sprint, same distance as the initial sprint, was used to analyze the effectiveness of the form of recovery between the sprints. Group One was given an active form of recovery which included sitting in a chair for sixty seconds between consecutive sprints and Group Two was given a passive form of recovery which included walking for sixty seconds on day one of testing. On day two of testing the groups switched the given form of recovery. The time difference between the sprints was then used to run a paired t-Test to determine if there was a statistically significant difference between active and passive forms of recovery. As a result of this experiment, the data did not show a statistically significant difference. Therefore, there was no difference found between the two forms of recovery in consecutive sprint speed. The present study does not confirm that active forms of recovery would result in statistically significant faster times when compared to passive forms of recovery.