

ABSTRACT

THE EFFECT OF CREATINE AND/OR CREATINE AND CAFFEINE INGESTION ON WINGATE PERFORMANCE AND LOWER EXTREMITY MUSCLE FUNCTION AND RECRUITMENT

Eight subjects performed three Wingate tests to examine the effects that creatine alone and creatine plus caffeine might have on anaerobic performance. Subjects supplemented on either placebo (cornstarch) or creatine (20 grams a day) for 6 days and ingested either placebo or caffeine (5 mg/kg body weight) 1 hour prior to testing. Integrated electromyography was also conducted to analyze action potential frequency during testing. To measure ergogenicity, peak power, mean power, and fatigue index were analyzed and %IEMG was taken from the EMG data. The results show no significant ($p > 0.05$) improvement in the creatine treatment or the creatine plus caffeine treatment versus placebo. In addition, there was no significant change in %IEMG during the performance of the test.

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