

Effect of Citrulline on the Physical Performance of a Soccer-Specific Exercises in Adult Professional Soccer Players

Authors : Bezuglov Eduard, Ryland Morgans, Talibov Oleg, Kalinin Evgeny, Butovsky Mikhail, Savin Evgeny, Tzgoev Eduard, Artemii Lazarev, Bekzhan Pirmakhanov, Anthony C. Hackney

Abstract : Currently, there is conflicting evidence regarding the efficacy of citrulline for physical performance and post-exercise recovery. Moreover, the vast majority of studies conducted used physically active volunteers from the general population and heterogeneous exercise protocols that are not specific to most sports. A single use of citrulline, regardless of the dose, will not have a significant effect on physical performance and post-exercise recovery in highly trained soccer players performing sport-specific exercises at maximum intensity. To evaluate the effectiveness of a single administration of citrulline at various doses in adult male professional soccer players performing sport-specific exercise at maximum intensity. A randomized, double-blind, placebo-controlled study analyzing eighteen soccer players from the top divisions of several European countries. The participants were randomized into three groups of six and performed a field-based soccer-specific test at 115% VO₂max for 18-minutes. Comparative analysis of the cardiovascular system, physical activity, subjective perceived fatigue and post-exercise recovery was conducted. There were no statistically significant differences in more than one analyzed parameter. A single application of 3 to 6 grams of citrulline does not affect physical performance, subjective feeling of fatigue and post-exercise recovery in adult professional soccer players who have performed a sport-specific test. Currently, citrulline cannot be recommended for use as a supplement in adult professional soccer players

Keywords : citrulline, performance, recovery, soccer players

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