

Alcohol after Resistance Exercise Does not Affect Muscle Power Recovery

Levitt, D., Idemudia, N., Cregar, C., Duplanty, A., Hill, D., & Vingren, J. (2019). Alcohol after Resistance Exercise Does not Affect Muscle Power Recovery. *Journal of Strength and Conditioning Research*.

Abstract

The purpose of this study was to investigate the effect of alcohol consumed after heavy eccentric resistance exercise on measures of muscle power. After familiarization and an initial eccentric exercise bout to control for the “repeated-bout effect,” ten recreationally resistance-trained men completed two identical heavy eccentric squat bouts (4 sets of 10 repetitions at 110% of concentric 1-repetition maximum) one week apart. Each exercise bout was followed by ingestion of a beverage containing either alcohol (1.09 g ethanol[BULLET OPERATOR]kg⁻¹ fat-free body mass) or no alcohol (placebo; volume of alcohol replaced with water). Vertical jump (VJ) peak power, VJ peak force, VJ jump height, change-of-direction ability (shuttle run), sprint acceleration (sprint test), and muscle soreness were measured before (PRE), 24 hrs after (24H), and 48 hrs after (48H) each eccentric exercise bout. Although the exercise bout resulted in significantly ($p < 0.05$) decreased VJ peak power at 24H, significantly decreased VJ jump height at 24H, and significantly increased muscle soreness at 24H and 48H, consuming alcohol after the exercise bout did not affect any of the performance outcome measures. When consumed after a non-novel heavy eccentric resistance exercise bout, alcohol did not affect soreness or recovery of muscular power. Practitioners can use this information to advise their athletes with regards to responsible alcohol use after non-novel exercise. Although short-term anaerobic performance does not appear compromised as a result of acute post-exercise alcohol ingestion, practitioners and athletes should be aware of potential long-term effects of such alcohol use.