

POSTER PRESENTATION

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The effects of 8 weeks of heavy resistance training and branched-chain amino acid supplementation on body composition and muscle performance

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From International Society of Sports Nutrition: 10th Annual ISSN Conference and Expo
Colorado Springs, CO, USA. 14-15 June 2013

Purpose

This study determined the effects of eight weeks of heavy resistance training combined with branched-chain amino acid (BCAA) supplementation on body composition and muscle performance.

Methods

Nineteen non-resistance-trained males resistance-trained (3 sets of 8-10 repetitions) four times/week for eight weeks while also ingesting 9 g/day of BCAA or 9 g/day of placebo (PLAC) on exercise days only (half of total dose 30 min before and after exercise). Data were analyzed with separate 2 x 2 ANOVA ($p < 0.05$).

Results

For total body mass, neither group significantly increased with training ($p = 0.593$), and there also were no significant changes in total body water ($p = 0.517$). Also, no training- or supplement-induced ($p = 0.783$) changes occurred with fat mass or fat-free mass ($p = 0.907$). Upper-body ($p = 0.047$) and lower-body strength ($p = 0.044$) and upper- ($p = 0.001$) and lower-body muscle endurance ($p = 0.013$) were increased with training; however, these increases were not different between groups ($p > 0.05$).

Conclusion

When combined with heavy resistance training for eight weeks, 9 g/day of BCAA supplementation, half given 30 min before and after exercise, had no preferential effects on body composition and muscle performance.

Published: 6 December 2013

doi:10.1186/1550-2783-10-S1-P25

Cite this article as: Spillane et al.: The effects of 8 weeks of heavy resistance training and branched-chain amino acid supplementation on body composition and muscle performance. *Journal of the International Society of Sports Nutrition* 2013 10(Suppl 1):P25.

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