POSTER PRESENTATION



Open Access

Effects of 8 weeks pre-workout dietary supplement ingestion with and without synephrine on blood chemistry panel

YP Jung^{1*}, R Dalton¹, C Rasmussen¹, P Murano², CP Earnest^{1,3}, RB Kreider¹

From The Twelfth International Society of Sports Nutrition (ISSN) Conference and Expo Austin, TX, USA. 11-13 June 2015

Background

A number of nutritional strategies have been developed to optimize nutrient delivery prior to exercise. As a result, a number of pre-workout supplements have been developed to increase energy availability, promote vasodilation, and/ or positively affect exercise capacity. The purpose of this study was to examine the effects of 8 weeks pre-workout dietary supplement ingestion with and without synephrine on blood chemistry panel.

Methods

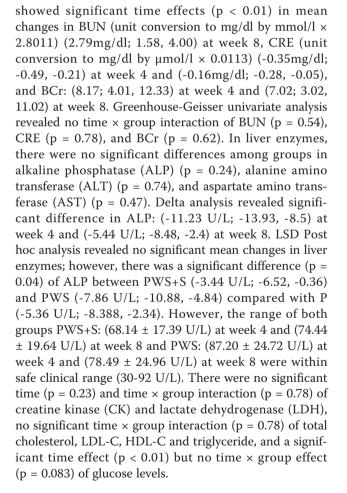
In a double-blind, randomized and placebo-controlled manner; 80 apparently healthy and resistance-trained men $(21.76 \pm 3.59 \text{ yr}, 15.29 \pm 6.19\% \text{ fat}, 25.60 \pm 4.03 \text{ kg/m}^2)$ ingested in a randomized and counterbalanced manner a dextrose flavored placebo (P); a pre-workout supplement (PWS) containing 3.0 g beta alanine, 2 g creatine nitrate, 2g arginine AKG, 300mg N-acetyl tyrosine, 270mg caffeine, 15mg Mucuna pruriens; or, the PWS with 20mg synephrine (PWS+S), and then had blood donation at week 0, week 4, and week 8. The participants had resistance training 4 times per week during 8 weeks supplementation. Data were analyzed by repeated measure ANOVA and presented as mean (95% CI) delta change from baseline.

Results

Repeated MANOVA revealed no significant differences among groups in blood urea nitrogen (BUN) (p = 0.62) and creatinine (CRE) (p = 0.27), and the ratio of BUN/ CRE (BCr) (p = 0.20). An overall Wilks' Lambda analysis

¹Exercise & Sport Nutrition Lab, Texas A&M University, College Station, TX, USA

Full list of author information is available at the end of the article



Conclusion

Ingesting a dietary PWS or PWS+S for 8 weeks had no adverse effect on kidney function, liver enzymes, blood lipid levels, muscle enzymes, and blood sugar levels. These



© 2015 Jung et al. This is an Open Access article distributed under the terms of the Creative Commons Attribution License (http:// creativecommons.org/licenses/by/4.0), which permits unrestricted use, distribution, and reproduction in any medium, provided the original work is properly cited. The Creative Commons Public Domain Dedication waiver (http://creativecommons.org/publicdomain/ zero/1.0/) applies to the data made available in this article, unless otherwise stated.

^{*} Correspondence: peterjung@hlkn.tamu.edu

findings are in agreement with other studies testing similar ingredients.

Acknowledgements

Supported by Nutrabolt International, Inc. (Bryan, TX).

Authors' details

¹Exercise & Sport Nutrition Lab, Texas A&M University, College Station, TX, USA. ²Institute for Obesity Research & Program Evaluation, Texas A&M University, College Station, TX, USA. ³Nutrabolt International Inc., Bryan, TX, USA.

Published: 21 September 2015

doi:10.1186/1550-2783-12-S1-P4

Cite this article as: Jung *et al.*: Effects of 8 weeks pre-workout dietary supplement ingestion with and without synephrine on blood chemistry panel. Journal of the International Society of Sports Nutrition 2015 12(Suppl 1):P4.

Submit your next manuscript to BioMed Central and take full advantage of:

- Convenient online submission
- Thorough peer review
- No space constraints or color figure charges
- Immediate publication on acceptance
- Inclusion in PubMed, CAS, Scopus and Google Scholar
- Research which is freely available for redistribution

BioMed Central

Submit your manuscript at www.biomedcentral.com/submit