

POSTER PRESENTATION

Open Access

Macronutrient intake in Collegiate powerlifters participating in off season training

Jonathan M Oliver*, Michelle A Mardock, Adam J Biehl, Steven E Riechman

From International Society of Sports Nutrition; 7th Annual ISSN Conference and Expo
Clearwater Beach, FL, USA. 24-26 June 2010

Background

Currently, the ISSN recommends 50-80 kcal/kg/day for strength athletes participating in intense training. In addition to caloric recommendations, other macronutrient recommendations include protein, carbohydrate and fat, 1.5-2.0 g/kg bodyweight, 5-8 g/kg bodyweight, and 30% of total calories respectively. Athletes participating in collegiate club sports may not have the benefit of obtaining nutrition information from a designated coach or nutritionist; therefore, the purpose of this study was to determine the macronutrient intake of collegiate club sport powerlifters participating in intense off season training.

Methods

Six men (22±4 yrs, 177±7 cm, 91±16kgs, 15± 4% bf) and three women (25± 4 yrs, 159± 9 cm, 74± 17 kgs, 31± 12% bf), all members of the Texas A & M University Powerlifting Team, completed 3 day diet records while participating in team training designed to elicit hypertrophy 4 days/week for 9 weeks. Diets were analyzed for macronutrient content using Nutribase software by a registered dietitian.

Results

Powerlifters participating in off season training failed to meet the current ISSN recommendations for calories (25± 8 kcal/kg), protein (1.18± .36 g/kg) or carbohydrate (3.06± .91 g/kg), but obtained the recommended percentage fat intake (32± .3% kcal). When using lean body mass instead of body weight, powerlifters still failed to meet caloric and carbohydrate recommendations, 34.0± 7.0 kcal/kg and 4± 1 g/k respectively. Protein requirements were met (1.6± .3 g/kg) as well as percentage fat

intake when lean body mass was used instead of total body weight.

Conclusion

Powerlifters participating in off season training should strive to increase caloric intake in an effort to better meet current ISSN guidelines for macronutrient intake in an effort to optimize training goals through nutrition.

Acknowledgement

The authors would like to thank the members of the Texas A & M University Powerlifting Team for volunteering for this project.

Published: 15 September 2010

doi:10.1186/1550-2783-7-S1-P8

Cite this article as: Oliver et al.: Macronutrient intake in Collegiate powerlifters participating in off season training. *Journal of the International Society of Sports Nutrition* 2010 **7**(Suppl 1):P8.

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

Submit your manuscript at
www.biomedcentral.com/submit

