

Poster presentation

Dietary protein, resistance training and health: a call for evidence

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Background

Purposeful intake of ample dietary protein remains controversial, as illustrated by uncertain and/or dissuasive material in introductory dietetics texts and statements by professional organizations (Lowery L and Huffman J, *Dietary Protein in Sport: Still Controversial*, ASEP National Meeting, 2008). Common health concerns include undue "stress" on renal function, bone loss, and deleterious effects on other dietary components such as fiber and saturated fat. Particularly dissuasive language has been targeted toward strength athletes.

Methods

In preparation for a series of studies, this investigation sought to ascertain the amount of readily accessible published research on these nutritional-physiological topics, specific to the resistance trained population. Pub Med (Library of Medicine abstracts) searches were performed using combinations of search terms including exercise, resistance trainer (-ed, -ing), athlete, (dietary) protein, safety, renal, kidney, bone, fiber, fat and saturated fat.

Results

Results indicate a dearth of population-specific safety data, with zero to 30 exercise-related abstracts found, depending upon the combination of search terms. Nearly all abstracts (75 of 77) were focused upon anabolic efficacy or issues other than safety or chronic diseases. No abstracts specifically compared renal function, bone density or dietary parameters of resistance trainers with a

multi-year history of ample/surplus protein consumption with their non-protein-seeking counterparts.

Conclusion

Results are in agreement with earlier safety assessments that "few studies have included considerations of energy intake or physical activity" (Institute of Medicine, *The Role of Protein and Amino Acids in Sustaining and Enhancing Performance*, National Academy Press, 1999). We conclude that existing safety and health concerns and the dissuasive education of resistance trainers who seek ample dietary protein appear to be based on populations who differ in renal function, bone health and potentially dietary patterns. Evidence-based practice requires valid, reproducible, population-specific evidence. Preliminary research investigating each of these concerns is currently underway at the University of Akron.

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