



Log in | Register



Journal

European Journal of Sport Science >

Volume 15, 2015 - Issue 1: Current controversies in sports nutrition



REVIEW ARTICLES

Considerations for protein intake in managing weight loss in athletes

Caoileann H. Murphy, Amy J. Hector & Stuart M. Phillips 🔀

Pages 21-28 | Published online: 11 Jul 2014

66 Download citation



Select Language ▼

Translator disclaimer



Abstract

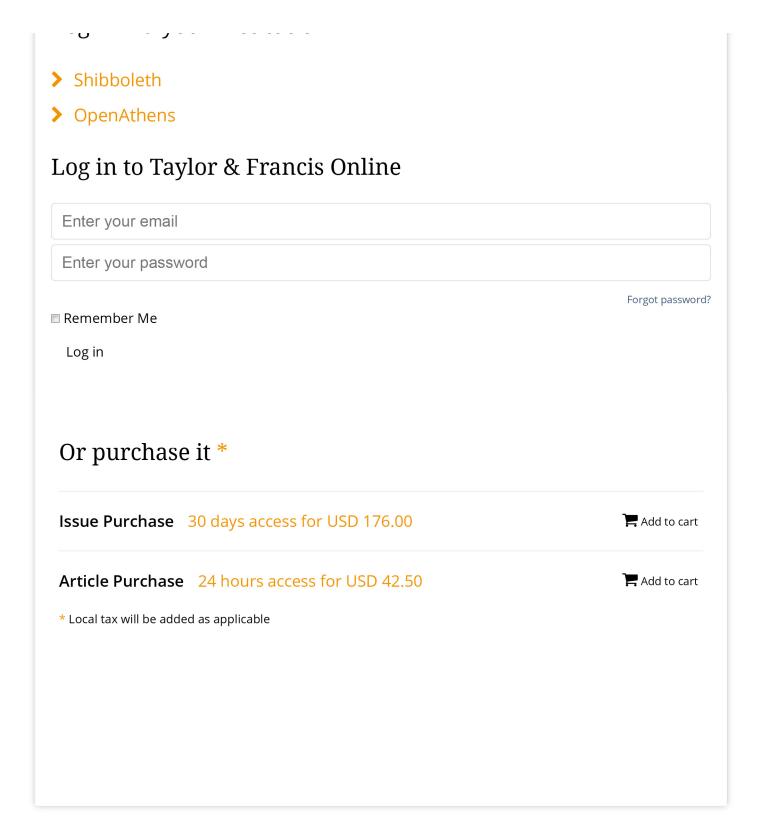
A large body of evidence now shows that higher protein intakes (2–3 times the protein Recommended Dietary Allowance (RDA) of 0.8 g/kg/d) during periods of energy restriction can enhance fat-free mass (FFM) preservation, particularly when combined with exercise. The mechanisms underpinning the FFM-sparing effect of higher protein diets remain to be fully elucidated but may relate to the maintenance of the anabolic sensitivity of skeletal muscle to protein ingestion. From a practical point of view, athletes aiming to reduce fat mass and preserve FFM should be advised to consume protein intakes in the range of $\sim 1.8-2.7$ g kg⁻¹ d⁻¹ (or $\sim 2.3-3.1$ g

6/4/2018, 12:47 PM

within this recommended range requires consideration of a number of case-specific factors including the athlete's body composition, habitual protein intake and broader nutrition goals. Athletes should focus on consuming high-quality protein sources, aiming to consume protein feedings evenly spaced throughout the day. Post-exercise consumption of 0.25–0.3 g protein meal⁻¹ from protein sources with high leucine content and rapid digestion kinetics (i.e. whey protein) is recommended to optimise exercise-induced muscle protein synthesis. When protein is consumed as part of a mixed macronutrient meal and/or before bed slightly higher protein doses may be optimal.

Keywords: Protein, weight loss, body composition, nutrition

2 of 6 6/4/2018, 12:47 PM



People also read



3 of 6

Carbohydrates for training and competition >

Louise M. Burke et al.

Journal of Sports Sciences Volume 29, 2011 - Issue sup1

Published online: 9 Jun 2011

Rethinking fat as a fuel for endurance exercise

Jeff S. Volek et al.

European Journal of Sport Science Volume 15, 2015 - Issue 1

Published online: 19 Jan 2015

Article

Strategies to maintain skeletal muscle mass in the injured athlete: Nutritional considerations and exercise mimetics >

Benjamin T. Wall et al.

European Journal of Sport Science Volume 15, 2015 - Issue 1

Published online: 19 Jan 2015

Article

Dietary protein for athletes: From requirements to optimum adaptation >

Stuart M. Phillips et al.

Journal of Sports Sciences Volume 29, 2011 - Issue sup1

Published online: 9 Dec 2011



Article

Nutrition for endurance sports: Marathon, triathlon, and road cycling >

Asker E. Jeukendrup

Journal of Sports Sciences Volume 29, 2011 - Issue sup1

Published online: 9 Dec 2011

Article

Carbohydrate availability and exercise training adaptation: Too much of a good thing? >

Jonathan D. Bartlett et al.

European Journal of Sport Science Volume 15, 2015 - Issue 1

Published online: 19 Jan 2015

6/4/2018, 12:47 PM 4 of 6







5 of 6 6/4/2018, 12:47 PM

Information for

Authors

Editors Librarians

Societies

Open access

Overview

Open journals

Open Select

Cogent OA

Help and info

Help

FAQs

Newsroom

Contact us

Commercial services

Connect with Taylor & Francis











Copyright © 2018 Informa UK Limited Privacy policy & cookies Terms &

conditions Accessibility

Registered in England & Wales No. 3099067 5 Howick Place | London | SW1P 1WG

6/4/2018, 12:47 PM 6 of 6