

Sports Nutrition: More than Just Calories -Triggers for Adaptation

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Subjects: Sports Nutrition, Exercise, Carbohydrate, Fat, Protein, Water.

Description: *Sports Nutrition: More Than Just Calories - Triggers for Adaptation* contains the proceedings of the 69th Nestlé Nutrition Institute Workshop held in Kona, Hawaii, USA, in October 2010. This publication includes all the presented scientific papers covering the three macronutrients: carbohydrate, fat and protein, and its effects and regulation during exercise.

Purpose: The aim of the workshop and so the book is to explore the effects of nutritional manipulations on the metabolic responses to acute and chronic exercise. Another goal is to further identify the possible role of these dietary interventions in promoting adaptive changes in muscle, adipose tissues and other potential sites of limitation to exercise performance.

Audience: Every medical student, athlete and clinician in the fields of sports medicine, sports nutrition, exercise physiology and sports science will benefit from this book and find it useful.

Features: This book is divided into five chapters which are subdivided into 8 clearly written and well documented scientific papers, each is written by different experts and includes 14 figures and two tables. The following topics from the proceedings of the workshop are addressed in

the chapters: Chapter 1 is “Carbohydrate” including papers with the headings “Carbohydrate ingestion during exercise: effects on performance, training adaptations and trainability of the gut”, and “Altering endogenous carbohydrate availability to support training adaptations”, Chapter 2 is “Fat” including papers with the headings “Metabolic regulation of fat use during exercise and in recovery”, and “Fat adaptation science: low-carbohydrate, high-fat diets to alter fuel utilization and promote training adaptation”, Chapter 3 is “Protein” including papers with the headings “Dietary protein to support muscle hypertrophy”, and “Effect of protein, dairy components and energy balance in optimizing body composition”, Chapter 4 is “Water” including one paper with the heading “Effect of cell hydration on metabolism”, and Chapter 5 is “Concluding Comments” including also one paper with the heading “Practical nutritional recommendations for the athlete”.

Assessment: The authors of each paper are highly knowledgeable scientific experts and all are specialists in different areas of sports nutrition from around the world. The scientific papers cover the three macronutrients carbohydrate, fat and protein, plus an additional chapter on water, together with the final concluding comments about practical nutritional recommendations for the athlete that summarizes the ways in which the technical scientific content from the workshop can be implemented. Each review paper has an accompanying discussion section which is compiled by an invited expert in the field.

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