

Optimizing Physical Performance during Fasting and Dietary Restriction: Implications for Athletes and Sports Medicine

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Subjects: Ramadan Fasting, Food Restriction, Athletic Performance.

Description: *Optimizing Physical Performance During Fasting and Dietary Restriction: Implications for Athletes and Sports Medicine* examines the effects of sustained fasting and food restrictions, including Ramadan fasting, upon the metabolism and physical performance in healthy well-trained athletes.

Purpose: The aim of this book is to outline findings from recent peer-reviewed literature as well as original experiments conducted by the authors who are experts in the supervision of athletes during fasting in a simply and clearly manner, beginning with fundamental principles and summarizing the implications for athletes.

Audience: The book is best for sports physicians and graduate students in exercise science. Furthermore, the book is also useful for coaches, trainers, nutritionists and the athletes themselves.

Features: This book is composed of 14 clearly written and well documented chapters, and includes 7 figures and 27 tables. Each chapter includes a clearly stated learning

objectives at the beginning, and definitions of key terms, key point summaries, questions for discussion and further readings at the end. The following topics are addressed in the chapters: 1-“Introduction: characteristics of fasting”, 2-“Changes of body mass and energy balance during fasting and dietary restriction”, 3-“Carbohydrate metabolism and fasting”, 4-“Mobilization and utilization of lipids during dietary restriction conditions”, 5-“Protein metabolism during dietary restriction”, 6-“Hydration and fluid restriction in athletes”, 7-“Changes in hormone levels and circadian rhythms during fasting”, 8-“Oxidative stress and fasting”, 9-“Effects of dietary and fluid restrictions upon physical performance, cognition and vigilance”, 10-“Nutritional recommendations for dietary restriction”, 11-“Tactics to sustain training and competitive performance during fasting”, 12-“Coping and recovery tactics during fasting and dietary restriction”, 13-“Miscellaneous medical issues during dietary and fluid restriction”, and 14-“Conclusions”.

Assessment: The authors of the chapters are highly knowledgeable scientific experts who have had long experience in the supervision of athletes during fasting. The book is based on recent findings that are cited in peer-reviewed literature and presented at international congresses, as well as original experiments conducted by the editors.

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