

Special Issue

Molecular Insights in Sports Nutrition: Synergistic Mechanisms for Performance Optimization

Message from the Guest Editors

Nutrition is considered to have two main functions: maintaining and developing the body, and providing the energy needed for physical activity. In competitive sports, methods of nutritional intake to build an optimal physique for a particular sport and methods of supplying energy to enable full exertion of strength during training and matches are crucial. With the growing importance of events such as the Olympic Games and various World Cups as platforms for demonstrating national prestige, as well as individual achievement, attention has focused on sports science in recent years. Research topics linking sports science and nutrition—such as carbohydrate loading for long-distance running, iron deficiency anaemia (a particular concern for female athletes), and food-derived organic compounds as safe nutrients that do not constitute doping—deserve significant attention at present. Furthermore, we will address critical contemporary challenges, including Relative Energy Deficiency in Sport (RED-S), a syndrome of physiological dysfunction caused by low energy availability that impairs metabolic rate, menstrual function, bone health, and immunity.

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About the Journal

Message from the Editorial Board

Nutrients is an on-line open access journal that was first published in 2009. *Nutrients* adheres to rigorous peer-review and editorial processes and publishes only high quality manuscripts that address important issues related to the impacts of nutrients on human health. The Impact Factor of *Nutrients* has risen rapidly since its establishment and it is now ranked in the first quartile of journals publishing in the field of nutrition and dietetics research.

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