

Special Issue

Nutritional Strategies for Muscle Damage and Recovery

Message from the Guest Editors

There is no doubt that physical activity leads to increased metabolic and functional demands on the human body. Intense or prolonged exercise can induce muscle damage of varying degrees. Within this context, promoting nutritional strategies that support muscle anabolism is crucial—not only due to their direct impact on functional improvement, but also because of their close relationship with effective recovery. Proteins, amino acids, bioactive compounds, and regulatory micronutrients—such as vitamins and minerals—have demonstrated fundamental and effective roles in the muscle recovery process. Specific nutrients can influence muscle protein synthesis, facilitate the resolution of inflammation, reduce oxidative stress, and restore the anabolic–catabolic balance. Moreover, well-designed nutritional strategies can enhance substrate availability for cellular regeneration, preserve muscle mass, and shorten the time required for full functional recovery. Therefore, the integration of personalized nutritional interventions represents a key tool for optimizing post-exercise recovery and enhancing the overall benefits of physical training across various contexts and populations.

Guest Editors

Prof. Dr. Alberto Caballero

Faculty of Health Sciences, GIR Physical Exercise and Aging, University of Valladolid, Campus Duques de Soria, 42004 Soria, Spain

Dr. Daniel Pérez-Valdecantos

Departamento Bioquímica, Biología Molecular y Fisiología, Facultad de Ciencias de la Salud, GIR: “Ejercicio Físico y Envejecimiento”, Universidad Valladolid, Campus Universitario “Los Pajaritos”, 42004 Soria, Spain

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Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
nutrients@mdpi.com

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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.

Editors-in-Chief

Prof. Dr. Lluís Serra-Majem

1. Centro de Investigación Biomédica en Red Fisiopatología de la Obesidad y la Nutrición (CIBEROBN), Institute of Health Carlos III, 28029 Madrid, Spain
2. Research Institute of Biomedical and Health Sciences (UIBS), University of Las Palmas de Gran Canaria, 35001 Las Palmas, Spain
3. Preventive Medicine Service, Centro Hospitalario Universitario Insular Materno Infantil (CHUIMI), Canarian Health Service, 35016 Las Palmas, Spain

Prof. Dr. Maria Luz Fernandez

Department of Nutritional Sciences, University of Connecticut, Storrs, CT 06269, USA

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