

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.

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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.

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