Special Issue

Acute and Chronic Effects of Strength Training on Neuromuscular Responses, Adaptations, and Sport Performance

Message from the Guest Editor

Strength training plays a central role in enhancing sport performance through improvements in neuromuscular function, movement efficiency, and long-term physical development. Recent approaches such as velocitybased training, plyometric training, complex contrast training, local muscular endurance training, and local vibration training have expanded conventional resistance training paradigms, offering diverse ways to influence both acute neuromuscular responses and chronic adaptations. In parallel, growing attention to strength training in youth highlights the importance of individualized and age-appropriate development strategies. The aim of this Special Issue is to present current knowledge and recent advances examining how these training modalities impact neuromuscular adaptations, motor control, training load management, fatigue resistance, and performance outcomes across different sport populations. We welcome different types of manuscript submissions, including experimental studies, reviews, systematic reviews and meta-analyses, which provide evidence-based insights to support optimizing strength training interventions for improved sport performance.

Guest Editor

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Message from the Editor-in-Chief

Sports (ISSN 2075-4663) is a peer-reviewed scientific journal that publishes original articles, critical reviews, research notes and short communications in the interdisciplinary area of sport sciences and public health. It links several scientific disciplines in an integrated fashion, to address critical issues related to sport science and public health. The journal presents diverse original articles, including systematic and narrative reviews, cohort and case control studies, innovative randomized trials, and formative research using qualitative and quantitative methods with the aim to provide information for researchers to plan intervention programs. It addresses diverse public health, physical activity and exercise science topics.

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