Special Issue

Neuromechanical Adaptations to Exercise and Sports Training

Message from the Guest Editor

Improvements in muscle strength, power, and joint range of motion are crucial physical adaptations sought by both professional and amateur athletes. Physiological adaptations play a significant role in enhancing these aspects. Specifically, neural adaptations at the corticospinal and spinal levels can lead to gains in muscle strength and joint mobility. Additionally, mechanical adaptations in the muscle–tendon unit also contribute to these improvements. Various exercise strategies, such as stretching, resistance training, and others, are commonly employed to promote neural and mechanical adaptations that enhance the physical capacities of athletes. Moreover, sport-specific training can have a significant impact on neuromuscular function and the muscle–tendon unit.

This Special Issue provides an opportunity to publish high-quality original research, systematic reviews, and meta-analyses focusing on the development of exercise strategies and sport-specific training to promote neuromechanical adaptations that improve physical capacities, including muscle strength, power, and joint range of motion.

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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