Special Issue

Lower Limb and Surface Interaction: Implications for Performance and Injury

Message from the Guest Editors

The interaction between the lower limb and surfaces is crucial for postural stability, balance loss, locomotion, effective performance, and injury prevention, especially when dealing with uneven, slippery, or unstable surfaces. Adaptations in lower limb mechanics, including changes in joint movements and muscle activation as well as alterations to leg and joint stiffness, occur to maintain stability and minimize the risk of falls, but also to maintain the optimum mechanical efficiency and energy economy. Understanding the biomechanics of the interaction between lower limbs and surfaces is crucial for optimizing performance, preventing injuries, designing assistive devices, and developing fitness training or rehabilitation strategies.

- gait adaptations
- leg stiffness
- surface stiffness
- unstable surface
- leg dominance
- energy absorption
- energy transfer
- traction

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Message from the Editor-in-Chief

Biomechanics (ISSN 2673-7078) is an international, peer-reviewed, and open access journal devoted to the fast publication of the latest achievements of scientific research in the area of biomechanics. Both experimental and theoretical papers are published. We hope that the submission guidelines and submission template will assist you in your submission of your research to this journal, and that you will enjoy reading the articles in Biomechanics.

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