





Recent Innovations in Sports Physiology: Shaping the Future of Athletic Performance

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1. Round 1

1.1 Reviewer 1

Date: 04 February 2023

Reviewer: The manuscript provides a comprehensive overview of recent innovations in sports physiology, effectively highlighting the integration of these advances in enhancing athletic performance. The author's detailed examination of various aspects, including wearable technology, injury prevention, and environmental impacts, is commendable.

Major Comments:

1. Depth of Content: The article thoroughly covers a wide range of topics, but it could benefit from deeper analysis in certain areas, such as the specific physiological mechanisms behind wearable technology's impact on performance.
2. Research Integration: While the article references current research, a more direct comparison with past methodologies would strengthen the argument for the significance of recent innovations.
3. Practical Application: The discussion on the translation of research into practical training methodologies is valuable, but it could be enhanced with real-world examples or case studies.

Minor Comments:

4. Structural Flow: Some sections could be reorganized for better logical flow, particularly in the transition between injury prevention and environmental factors.

5. Referencing: Ensure all references are up-to-date and properly formatted, as some seemed inconsistent.

Author revised the manuscript.

1.2 Reviewer 2

Date: 06 February 2023

Reviewer: This manuscript is a robust narrative review that skillfully encompasses a broad spectrum of sports physiology innovations. The inclusion of diverse topics, from technological advancements to the role of nutrition, provides a holistic view of the field.

Suggestions:

The manuscript excels in discussing recent technological advancements but could benefit from a stronger emphasis on the novel aspects of these technologies in sports physiology.

Environmental Factors: The section on environmental factors is insightful but would be more impactful with a deeper exploration of the physiological adaptations athletes undergo in various conditions.

Future Directions: The concluding section adeptly outlines future research opportunities. However, incorporating potential challenges and limitations in this research area would provide a more balanced view.

Clarity and Conciseness: Some sections, particularly on injury prevention, could be made more concise without losing essential information.

Graphical Data: Including graphical representations or models could enhance the reader's understanding, especially in sections dealing with complex physiological processes.

Overall, the manuscript is a well-constructed and informative piece. It effectively bridges the gap between theoretical research and its application in sports physiology. With minor revisions for clarity and a balanced perspective on future challenges, it could be an essential read for professionals in the field.

Author revised the manuscript.

2. Revised

Editor's decision after revisions: Accepted.

Editor in Chief's decision: Accepted.