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Special Issue Reprint

Human Performance and Health in Sport and Exercise

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This Reprint synthesizes current research examining the relationship between human performance and health in sport and exercise. The collected articles show how participation in physically demanding sports contributes to measurable adaptations in cardiovascular, metabolic, neuromuscular and psychological domains across a wide range of populations. At the same time, the evidence demonstrates that competitive environments impose considerable physiological load and psychological strain, underscoring the need for structured monitoring, adequate recovery and long-term health management. The studies included adopt a multidimensional analytical framework, integrating physiological indicators, biomechanical parameters, anthropometric characteristics, psychomotor abilities and recovery-related measures. Collectively, they address key determinants of sport performance, including aerobic and anaerobic capacity, reaction and movement efficiency, training load quantification, tactical behavior, and the influence of sleep and dietary practices on adaptation and recovery. Additional contributions consider adapted and para-sport contexts, rehabilitation-oriented exercise, and the preventive value of structured physical activity in youth and clinical populations. By merging these perspectives, this Reprint provides an evidence-based account of how health and performance can be jointly assessed and optimized. The material offers a contemporary reference for researchers, practitioners and clinicians seeking to advance methodological rigor and applied practice in sport, exercise and health sciences.



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