



Special Issue Reprint

## Biological Mechanisms Underlying Physical Fitness and Sports Performance

www.mdpi.com/books/reprint/6321

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ISBN 978-3-0365-5724-3 (Hardback) ISBN 978-3-0365-5723-6 (PDF)



The concept of mechanism in biology has three distinct meanings. It may refer to a philosophical thesis about the nature of life and biology, to the internal workings of a machine-like structure, or to the causal explanation of a particular phenomenon. In this Special Issue, we try to discuss these possible biological mechanisms that underlie the beneficial effects of physical fitness and sports performance, as well their importance and role/influences on physical health.

Despite the significant body of knowledge regarding the physiological and physical effects of different training methods (based on dimensions of load), some of the biological causes for those changes are still unknown. Additionally, few studies have focused on the natural biological variability in humans and how specific properties of humans may justify different effects for the same training intervention. Thus, more original research is needed to provide plausible biological mechanisms that may explain the physiological and physical effects of exercise and training in humans.

In this Special Issue, we gather the contributions that describe and list the links between physical fitness, sports performance, and human biology.



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