



The Impact of Altitude on Exercise Tolerance of Various Patients

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Message from the Guest Editors

More than 500 million humans live at or above the altitude of 1500 m, and many more people transiently sojourn at such altitudes for recreation, athletic training, or work. Barometric and related oxygen partial pressure continuously decrease with increasing altitude (hypobaric hypoxia), thereby negatively affecting aerobic exercise capacity and the associated activities of daily living and quality of life. Gas exchange in the lungs, oxygen delivery to exercising muscles, and the use of oxygen in the mitochondria of these muscles are the main determinants of an individual's aerobic exercise capacity. Any impairment of these mechanisms and/or their control by the autonomous nervous system will negatively impact on exercise tolerance, which is especially pronounced when ambient oxygen availability is reduced, i.e., at high altitude.

Thus, this Special Issue is primarily aimed to uncover disease-dependent pathophysiological mechanisms affecting exercise capacity at high altitudes and provide helpful management strategies.





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