

EFFECTS OF HYPERBARIC OXYGEN THERAPY ON RECOVERY AND PHYSICAL PERFORMANCE: A SYSTEMATIC REVIEW

Goran Danković^{1,2}, Vladimir Antić³

The potential mechanisms underlying the improvement in physical performance with hyperbaric oxygen therapy (HBOT) are multifaceted and not yet fully understood. Therefore, this systematic review aimed to identify and summarize the relevant literature on the influence of HBOT on recovery and performance. To identify potential studies, a comprehensive search was performed in two electronic databases: PubMed and MEDLINE. We identified 13 relevant studies with a total of 271 participants, of which 249 were males, while 22 were females. The studies on post-exercise recovery suggest that hyperbaric oxygen therapy may positively affect various recovery parameters which include reducing lactate concentration, improving heart rate recovery, enhancing antioxidant capacity, and accelerating recuperation. The studies on HBOT effects on physical performance provide some intriguing insights. While most studies indicate the potential of hyperbaric oxygen therapy to influence physical performance positively, it is crucial to consider that the effectiveness of HBOT can vary based on factors like exercise type, intensity, and individual athlete characteristics. The use of HBOT for recovery and performance is a promising field, but further research is required to establish standardized protocols and to better understand the specific conditions under which hyperbaric oxygen therapy can be most beneficial.

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