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The Effects of Sleep Quantity and Quality on Athletic Performance and Recovery

CONFERENCE ABSTRACT

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Abstract

The importance of optimizing sleep has increased significantly in recent years regarding athletic performance and recovery. However, many athletes struggle to achieve sufficient sleep quantity or quality. This narrative review examines the links among sleep duration, sleep quality, and targeted sleep interventions designed to enhance athletic performance and recovery. This review also investigates the effects of inadequate sleep on physiological and psychological performance, and analyzes how targeted sleep strategies may improve athletic outcomes. This narrative review relied on a range of peer-reviewed journal articles in sports medicine and exercise science. Selected sources addressed sleep-related interventions, effective sleep hygiene, or the influence of training and competition on athletes' sleep. By incorporating systematic reviews, meta-analyses, and observational studies, this review thoroughly explores the effects of sleep habits on athletic performance, recovery, and athletes' health. Findings from the research indicate that suboptimal sleep will negatively affect an athlete's reaction time, cognitive abilities, mood, and performance, as well as an athlete's ability to recover from

injury or training. Conversely, interventions including extending sleep, practicing better sleep hygiene, and using strategic napping techniques have demonstrated improvement in both athletic performance and recovery. In addition to the above-mentioned interventions, other variables (training load, travel schedule, competition schedule) might have an impact on disrupting an athlete's ability to get adequate amounts of sleep. Ultimately, this review supports the concept of sleep being an easily modified variable that can be utilized by coaches and athletes to maximize athletic performance and maintain a healthy lifestyle.

Keywords: sleep, athletes, human performance, recovery