

SLEEP AND ATHLETIC PERFORMANCE



Athletes who sleep less than their peers have an increased risk of injury, paradoxically the time and physical demands of athletics can actually hinder sleep.¹ With the factors that impact sleep being athlete-specific, it is unlikely that a “one-size fits all” approach in recommendations will work for all.^{1,2} Research suggests that sleeping longer or including naps can lead to significant performance improvements.³ Improved sleep can positively impact cognitive function (e.g., reaction time, decision making, learning and memory), physical performance, and mental health.¹ Athletic trainers can 1) provide sleep education, 2) screen athletes for sleep problems, 3) encourage naps, 4) promote sleep banking, getting more sleep prior to a period of deprivation, and 5) educate and monitor patients’ nutrition habits.^{1,2}

FREE COMMUNICATIONS

Change In Subjective and Objective Athlete Monitoring Data Over 2 Competitive Seasons (*Pexa et al, 2023*) S-28. Subjective and objective athlete monitoring variables, including sleep quality (e.g. Pittsburgh Sleep Quality Index) and stress (e.g. Perceived Stress Scale), are altered throughout the season and year over year. Therefore, consistent athlete monitoring methods could aid with injury prevention and performance enhancement programs.

NATA Foundation
Funded Research

Relationships Between GPS Measured External Load, Internal Load, and Sleep Quality in Collegiate Men’s Lacrosse Athletes (*Jones et al, 2023*) S-29. Understanding the distinct demands of different player positions can guide the development of sleep strategies to optimize recovery, minimize fatigue, and enhance overall performance in athletes.

SLEEP & CONCUSSIONS

Insufficient sleepers report more concussion symptoms at baseline and may be as much as twice as likely to sustain a sport-related concussion (SRC) than sufficient sleepers and report higher symptom severity post-concussion.^{4,5} Furthermore, insufficient sleepers who did sustain a SRC performed worse at baseline on mean attention and processing speeds. Athletic trainers can screen for sleep difficulties to identify and refer athletes with poor sleep which could mitigate risk of SRC.⁴



The Association Between Sleep Duration and Concussion Symptom Severity at Baseline and Post Injury in United States Service Academy Cadets and Midshipmen (*Aderman et al, 2023*) S-134. Sleep duration the night before concussion baseline and post-injury evaluations should be considered as it may impact evaluation results.

Sleep Symptoms Associated With Sport-Related Concussion Symptom Recovery (*Bretzin et al, 2023*) S-178. Athletes with sleep-related concussion symptoms and higher symptom scores exhibited overall longer time to symptom resolution.

Sleep/Affective Symptoms and Symptom Resolution Time following Sport-Related Concussion in National Collegiate Athletic Association Sports: 2014/15–2018/19 (*Boltz et al, 2023*) S-179. Sleep/affective symptoms may have a prolonged effect on SRC symptom resolution time.

Despite the research suggestive of a correlation between sport-related concussion and sleep disturbance, it is important to consider dissenting research that suggests sports concussion did not influence the total sleep time of collegiate athletes upon reporting symptom-free and establishing a new baseline several months after injury, which indicates that baseline hours of sleep may not influence recovery from sport concussion in collegiate athletes. [(*Takata et al, 2023*) S-316; (*Bowling, et al., 2023*) S-318]. Athletic trainers should thoroughly consider all of the available research to enhance evidence-based decision making and patient education for the care of their athletes.

SLEEP SCREENING TOOLS



Athlete Sleep Screening Questionnaire (ASSQ)

Athlete Sleep Behavior Questionnaire (ASBQ)

OTHER RESOURCES

TEDx Presentation – Ian Dunican: [Sleep in... and win!](#)

Podcast: [Sleep 4 Performance](#)

References

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