

## Getting enough ZZZs may play a part in concussion testing

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Athletes who didn't get enough sleep the night before undergoing baseline concussion testing didn't perform as well as expected, say researchers presenting their work today at the American Orthopaedic Society for Sports Medicine's (AOSSM) Annual Meeting in Chicago, IL.

"Our results indicate athletes sleeping less than 7 hours the night prior to baseline concussion testing did not do as well on 3 out of 4 ImPACT scores and showed more symptoms," said lead author, Jake McClure, MD from Vanderbilt University. "Because return-to-play decisions often hinge on the comparison of post-concussion to baseline concussion scores, our research indicates that healthcare providers should consider the sleep duration prior to baseline neurocognitive testing as a potential factor in assessing recovery."

Researchers reviewed 3,686 non-concussed athletes—2,371 male, 1,315 female, 3,305 high school and 381 college-aged individuals—with baseline symptom and ImPACT neurocognitive scores. Individuals were stratified into three groups based on self-reported sleep duration the night before testing: fewer than 7 hours, 7-9 hours and greater than 9 hours. Significant differences in Reaction Time, Verbal Memory and Visual Memory scores were all noted in the group sleeping less than 7 hours. However, Visual-motor (processing) Speed scores did not seem to be affected. Also, significant differences in the total number of reported symptoms were associated with sleeping fewer than 7 hours.

"Understanding factors which modify baseline testing, potentially

including sleep, will continue to help lead to more accurate [concussion](#) testing, which ultimately equips clinicians with the best judgment to avoid returning athletes to competition earlier than necessary," said McClure.

Provided by American Orthopaedic Society for Sports Medicine

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