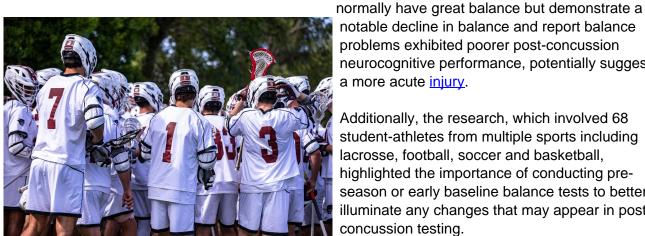


## Research finds balance tests key in better gauging concussions

22 June 2020



problems exhibited poorer post-concussion neurocognitive performance, potentially suggesting a more acute injury. Additionally, the research, which involved 68

student-athletes from multiple sports including

notable decline in balance and report balance

lacrosse, football, soccer and basketball, highlighted the importance of conducting preseason or early baseline balance tests to better illuminate any changes that may appear in postconcussion testing.

The Florida Tech concussion research involved studentathletes from multiple sports, including lacrosse, football, soccer and basketball. Credit: Florida Institute of Technology

"What our research lends some credence to is without a baseline balance assessment, you would have less information when you're making clinical decisions about a person having a concussion after their evaluation," DaCosta said.

As professional football approaches the July start of training camps and prep and college football programs look toward their fall seasons, new research from Florida Tech into concussions among student-athletes may have found a better way to understand the severity of these head injuries: balance tests.

DaCosta said the research began with considering balance from a recovery perspective, which led to them looking at balance changes overall, rather than just after a concussion. The research team noticed that those athletes with more pronounced balance changes were having worse outcomes in the acute phase, something that was previously overlooked as researchers analyzed symptoms and problems with memory and reaction time.

In "Change in Balance Performance Predicts Neurocognitive Dysfunction and Symptom Endorsement in Concussed College Athletes," published last month in the Archives of Clinical Neuropsychology, Florida Tech Ph.D. students Andrew DaCosta and Andrew Crane, former Florida Tech psychology professor Frank Webbe, and university psychology associate professor Anthony LoGalbo explored the change in balance performance in relation to neurocognitive functioning or symptom endorsement among student-athletes referred for possible concussion.

They also found that athletes having poor balance after an injury did not always suggest that they had a worse concussion. When athletes didn't report balance issues during baseline testing but nevertheless had trouble balancing both before and after an injury, the researchers suggested that the athlete likely had poor balance normally, as can be the case in taller athletes, for example, due to their higher center of gravity. For this reason, assessing a change in balance before and after an injury appears to be more informative than simply measuring balance after an injury occurs.

The researchers found that individuals who

More information: Andrew DaCosta et al.



Change in Balance Performance Predicts
Neurocognitive Dysfunction and Symptom
Endorsement in Concussed College Athletes, *Archives of Clinical Neuropsychology* (2020). DOI:
10.1093/arclin/acaa031

Provided by Florida Institute of Technology

APA citation: Research finds balance tests key in better gauging concussions (2020, June 22) retrieved 7 September 2022 from <a href="https://medicalxpress.com/news/2020-06-key-gauging-concussions.html">https://medicalxpress.com/news/2020-06-key-gauging-concussions.html</a>

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