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Robotic Movement Tests May Predict Post-Concussion Syndrome [VIDEO]

Article By:

Bruce H. Stern

Brain concussions and the potential for long lasting effects of a mild brain injury are not always obvious to healthcare providers at the time of injury. But recent advances are being made to create tools and tests to assess the potential for long term post-concussion symptoms (PCS) in patients. This is particularly important because recent studies have shown that even mild traumatic brain injuries (TBI) can cause long term healthcare problems.

A recently published study at the University of Cincinnati used robotic tests to evaluate emergency room patients' concussion symptoms to determine if they were predictive of long term healthcare problems. The tests (KINARM Standard Tests) tracked specific body movements and behavior, such as "position sense" in relationship to arm movement. The study outcomes showed that the robotic tests, created by BKIN Technologies Ltd. in Canada, had the ability to "discriminate between subjects who developed post-concussion syndrome and those who did not." Particularly evident in performance results were that patients with poor results in "visuomotor and proprioceptive" were more likely to suffer from post-concussion syndrome.

Currently the KINARM Labs are only available in research, but if additional studies support the results, it is possible that robotic movement and behavioral tools will become available and be used to predict mild traumatic brain injury outcomes right in the emergency room.

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