

## Published Articles in Reputable Medical Journals Supporting the Use of ImpACT Computerized Neurocognitive Testing for More Accurately Diagnosing Concussions and Objectively Following the Recovery Course.

### Of Note...

- 77.1% of NCAA sports are actively using ImpACT testing, along with the US Military, and professional sports including, NFL, NHL, NASCAR, MLB, MLS, Steeple Chase, etc.
- The three main computerized tests available are ANAM, AXON Sports/Cog. State Sport and ImpACT. Of these 3 ImpACT is the most researched with over 240 publications since 1998 and over 70 million in the data base.
- Sample sizes in many of these medical studies are substantial with number of subjects ranging from 108 – 250.
  - Probability scores are very strong in many of these studies often with ( $p < .001$ )

### From the List of Over 240 Published Journal Articles are the Following:

[Clin Neuropsychol](#). 2016 Feb;30(2):328-37. doi: 10.1080/13854046.2016.1158320. Epub 2016; Mar 21. **Long-term reliability of ImpACT in professional ice hockey.** [Echemendia RJ](#)<sup>1,2</sup>, [Bruce JM](#)<sup>2</sup>, [Meeuwisse W](#)<sup>3</sup>, [Comper P](#)<sup>4</sup>, [Aubry M](#)<sup>5</sup>, [Hutchison M](#)<sup>6</sup>. To see more, click on: <https://www.ncbi.nlm.nih.gov/pubmed/26999705>

[J Athl Train](#). 2015 Nov;50(11):1174-81. doi: 10.4085/1062-6050-50.11.11. Epub 2015 Nov 5. **Concussion-Related Protocols and Preparticipation Assessments Used for Incoming Student-Athletes in National Collegiate Athletic Association (NCAA) Member Institutions.** [Kerr ZY](#)<sup>1</sup>, [Snook EM](#)<sup>1</sup>, [Lynall RC](#)<sup>2</sup>, [Dompier TP](#)<sup>1</sup>, [Sales L](#)<sup>3</sup>, [Parsons JT](#)<sup>3</sup>, [Hainline B](#)<sup>3</sup>. To see more, click on: <https://www.ncbi.nlm.nih.gov/pubmed/26540099>

[J Trauma Acute Care Surg](#). 2015 Oct;79(4 Suppl 2):S146-51. doi: 10.1097/TA.0000000000000667. **The effects of combat-related mild traumatic brain injury (mTBI): Does blast mTBI history matter?** [Kontos AP](#)<sup>1</sup>, [Elbin RJ](#), [Kotwal RS](#), [Lutz RH](#), [Kane S](#), [Benson PJ](#), [Forsten RD](#), [Collins MW](#). To see more, click on: <https://www.ncbi.nlm.nih.gov/pubmed/26131789>

[J Int Neuropsychol Soc](#). 2014 Mar;20(3):324-32. doi: 10.1017/S1355617713001471. Epub 2014 Feb 13. **Computerized neurocognitive testing within 1 week of sport-related concussion: meta-analytic review and analysis of moderating factors.** [Kontos AP](#)<sup>1</sup>, [Braithwaite R](#)<sup>2</sup>, [Dakan S](#)<sup>1</sup>, [Elbin RJ](#)<sup>3</sup>. To see more, click on: <https://www.ncbi.nlm.nih.gov/pubmed/24521662>

[Am J Sports Med](#). 2011 Jun;39(6):1209-16. doi: 10.1177/0363546510392016. Epub 2011 Feb 1. **Sensitivity and specificity of subacute computerized neurocognitive testing and symptom evaluation in predicting outcomes after sports-related concussion.** [Lau BC](#)<sup>1</sup>, [Collins MW](#), [Lovell MR](#). To see more, click on: <https://www.ncbi.nlm.nih.gov/pubmed/21285444>

[Acad Emerg Med](#). 2011 Mar;18(3):246-54. doi: 10.1111/j.1553-2712.2011.01015.x. **Identifying neurocognitive deficits in adolescents following concussion.** [Thomas DG](#)<sup>1</sup>, [Collins](#)

[MW](#), [Saladino RA](#), [Frank V](#), [Raab J](#), [Zuckerbraun NS](#). To see more, click on:  
<https://www.ncbi.nlm.nih.gov/pubmed/21401786>

[Arch Clin Neuropsychol](#). 2006 Jan;21(1):91-9. Epub 2005 Sep 6., **Sensitivity and specificity of the IMPACT Test Battery for concussion in athletes;** [Schatz P<sup>1</sup>](#), [Pardini JE](#), [Lovell MR](#), [Collins MW](#), [Podell K](#). To see more, click on:  
<https://www.ncbi.nlm.nih.gov/pubmed/16143492>

[NeuroRehabilitation](#). 2007;22(3):207-16. **The relation between post-concussion symptoms and neurocognitive performance in concussed athletes.** [Fazio VC<sup>1</sup>](#), [Lovell MR](#), [Pardini JE](#), [Collins MW](#). To see more, click on:  
<https://www.ncbi.nlm.nih.gov/pubmed/17917171>

[Brain Inj](#). 2006 Jan;20(1):33-9. **Recovery from sports concussion in high school and collegiate athletes.** [McClincy MP<sup>1</sup>](#), [Lovell MR](#), [Pardini J](#), [Collins MW](#), [Spore MK](#). To see more, click on: <https://www.ncbi.nlm.nih.gov/pubmed/16403698>

[Journal of International Neuropsychology](#): Volume 20, Issue 3; March 2014 , pp. 324-332 **Computerized Neurocognitive Testing within 1 Week of Sport-Related Concussion: Meta-analytic Review and Analysis of Moderating Factors** [Anthony P. Kontos<sup>\(a1\)</sup>](#), [Rock Braithwaite<sup>\(a2\)</sup>](#), [Scott Dakan<sup>\(a1\)</sup>](#) and [R.J. Elbin<sup>\(a3\)</sup>](#) To see more, click on:  
<https://doi.org/10.1017/S1355617713001471>

[Brain Inj](#). 2006 Mar;20(3):245-52. **Tracking neuropsychological recovery following concussion in sport.**[Iverson GL<sup>1</sup>](#), [Brooks BL](#), [Collins MW](#), [Lovell MR](#). To see more, click on:  
<https://www.ncbi.nlm.nih.gov/pubmed/16537266>

[Am J Sports Med](#). 2006 Oct;34(10):1630-5. Epub 2006 Jun 30. **The "value added" of neurocognitive testing after sports-related concussion.** Van<sup>1</sup>, [Lovell MR](#), [Pardini JE](#), [Collins MW](#), [Fu FH](#). To see more, click on: <https://www.ncbi.nlm.nih.gov/pubmed/16816151>

[J Athl Train](#). 2008 May-Jun;43(3):265-74. doi: 10.4085/1062-6050-43.3.265. **Concussion in sports: post concussive activity levels, symptoms, and neurocognitive performance.** [Majerske CW<sup>1</sup>](#), [Mihalik JP](#), [Ren D](#), [Collins MW](#), [Reddy CC](#), [Lovell MR](#), [Wagner AK](#). To see more click on <https://www.ncbi.nlm.nih.gov/pubmed/18523563>