

Concussion Vital Signs Post-Injury Report

Athlete Reference/ID: athletetest	Test Date Local: October 8, 2014 12:30:45
Full Name: John Doe	Age: 18
Administrator: Head ATC	Language: English (United States)
Total Test Time: 23:01 (min:secs) for all tests in this report	Test Date GMT: October 8, 2014 19:30:45
Testing Supervision: Supervised by athletic trainer or school personnel	Testing Environment: Alone
Concussion Reference Code: 2T47GERB Used to view the most recent report or administer post-injury assessment at www.concussionvitalsigns.com	

Domain Scores	Baseline (Oct 7, 2014)			Post Injury				
	Subject Score	Compared to Peers	Valid Score	Subject Score	Compared to Peers	Valid Score	At Baseline or Better	Within 5% of Baseline
Neurocognitive Index (NCI)		Average	Yes		Average	Yes	Yes	Yes
Verbal Memory	51	Average	Yes	49	Below	Yes	No	Yes
Visual Memory	52	Average	Yes	48	Average	Yes	No	Yes
Psychomotor Speed	190	Average	Yes	192	Average	Yes	No	Yes
Executive Function	43	Average	Yes	59	Above	Yes	Yes	Yes
Cognitive Flexibility	40	Average	Yes	56	Average	Yes	Yes	Yes
CPT Correct Responses	40	Average	Yes	40	Average	Yes	Yes	Yes
Reaction Time*	538*	Above	Yes	514*	Above	Yes	Yes	Yes
Reaction Time Detail								
Simple Reaction Time*	284*	Average	Yes	252*	Average	Yes	Yes	Yes
Choice Reaction Time Correct*	432*	Average	Yes	420*	Average	Yes	Yes	Yes
Shifting Attention Correct RT*	856*	Average	Yes	617	Above	Yes	Yes	Yes

The entire test must be re-administered if the athlete has any "No" values in the Valid Score Column. An * denotes that "lower is better" in the Subject Score column, otherwise higher scores are better. With Percentile scores, higher is always better.

All tests are valid.

Domain Scores are defined as follows:

Verbal and Visual Memory is the score for the Verbal and Visual Memory Tests respectively.

Psychomotor Speed is the combined score for both the Finger Tapping and the Symbol Digit Coding Test.

Executive Function reflects performance on the Shifting Attention Test.

Cognitive Flexibility reflects performance on components of the Shifting Attention and Stroop Tests.

CPT Correct Responses is the number of correct responses on the Continuous Performance Test.

Reaction Time* is the average reaction time on parts 2 and 3 of the Stroop Tests.

Reaction Time Detail Scores are defined as follows:

Simple Reaction Time* is the average reaction time on part 1 of the Stroop Tests. Time required to press the spacebar from the time a word first appears on the display.

Choice Reaction Time Correct* is the average correct reaction time on the Continuous Performance Test. Time required to press the spacebar from the time a B first appears on the display.

Shifting Attention Correct RT* is the average correct reaction time on the Shifting Attention Test.

There are seven tests in the battery:

Verbal Memory Test - a 15 word memory test where the athlete will respond with the spacebar if they have seen one of the words before when challenged with another word list. This is a measure of memory.

Visual Memory Test - a 15 image memory test where the athlete will respond with the spacebar if they have seen one of the images before when challenged with another image list. This is a measure of memory.

Finger Tapping Test - the athlete will tap the spacebar as many times as possible in 10 second. There will be three trials with each hand. This is a measure of psychomotor speed.

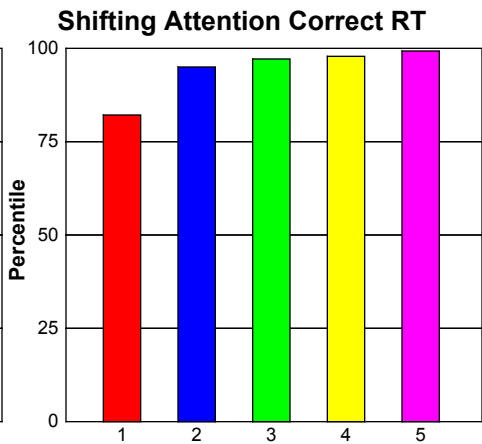
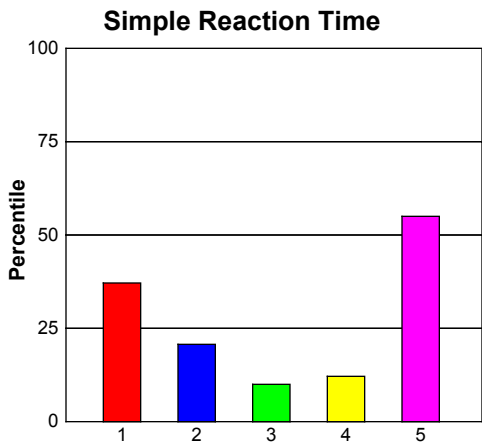
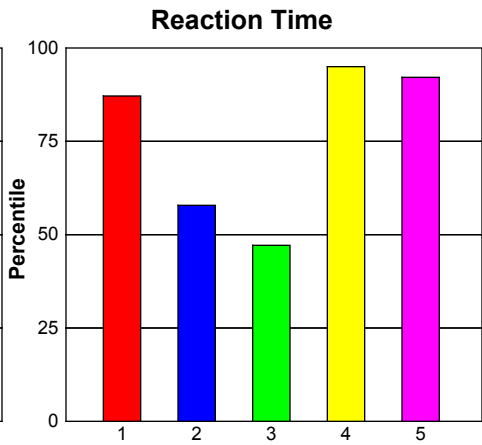
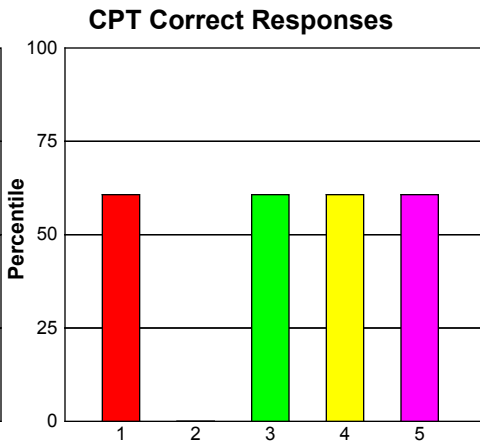
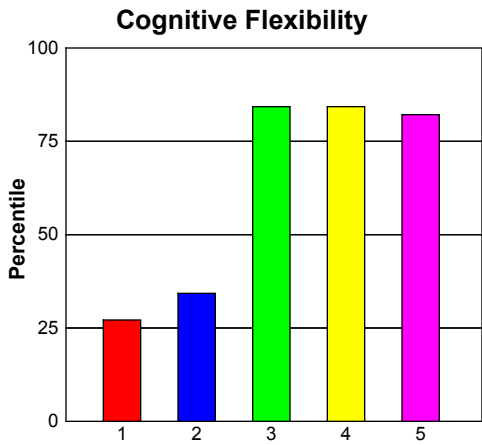
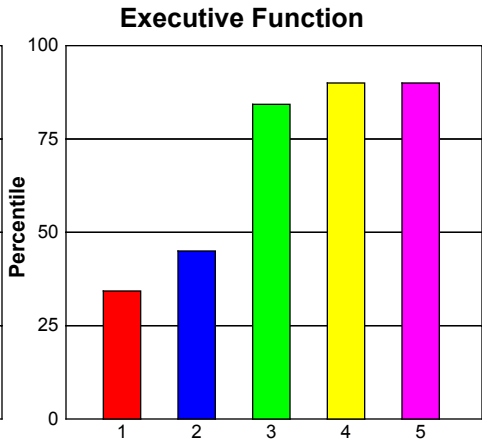
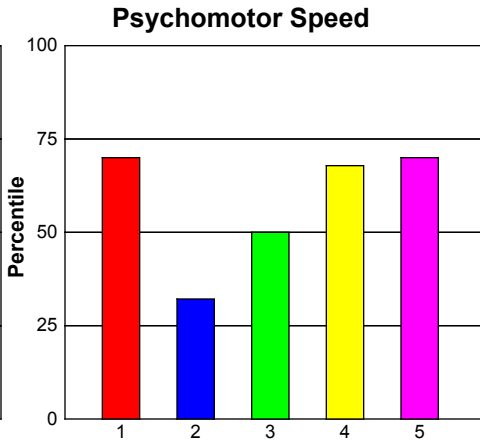
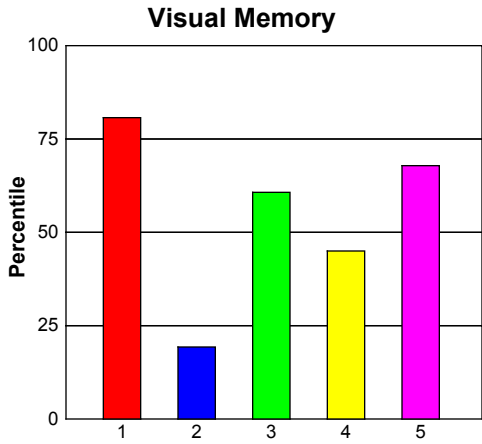
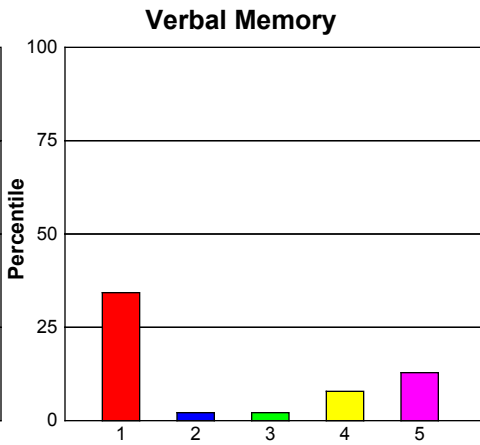
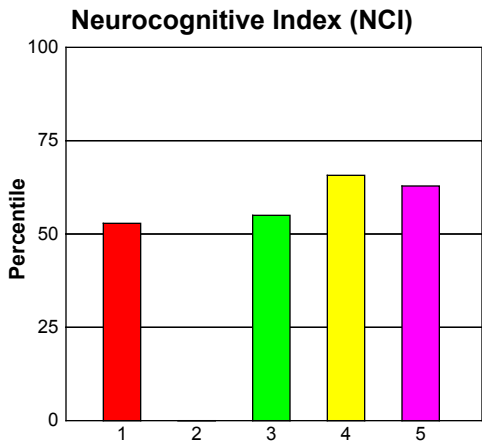
Symbol Digit Coding Test - the athlete will complete a grid where an answer key is presented and using the numbers from the key, match a number with a shape in the grid. The number keys across the top of the keyboard will be used to respond. This is a measure of psychomotor speed.

Stroop Test - the athlete will respond to colors and words in three different subtests. This is a measure of reaction time, simple reaction time, complex reaction time and cognitive flexibility.

Shifting Attention Test - the athlete will respond to changing rules (Match Color or Match Shape) by responding with the two shift keys. This is a measure of Shifting Attention Reaction Time, Executive Function and Cognitive Flexibility

Continuous Performance Test - the athlete will respond with the spacebar each time they see a letter "B" on the screen. This is a measure of choice reaction time and CPT Correct Responses.

Concussion Vital Signs Report		
Report for athleteest		
1	Baseline	September 17, 2014
2	Post Injury 1	September 28, 2014
3	Post Injury 2	October 2, 2014
4	Post Injury 3	October 4, 2014
5	Post Injury 4	October 8, 2014



Post-Injury Concussion Symptom Scale

Athlete Reference/ID: athletetest	Test Date Local: October 8, 2014 12:30:45
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Rates how this symptom is currently experienced, Absent (0 - None) or Present (1 - Mild to 6 - Severe).

CSI - Symptoms*		Baseline (Sep 17 2014)		Post-Injury	
		Absent	Present	Absent	Present
1	Headache	0		0	
3	Nausea	0		0	
5	Poor balance	0		0	
6	Dizziness	0		0	
7	Fatigue or loss of energy	0		0	
9	Drowsiness or feeling sleepy	0		0	
14	Feeling like "In-a-fog"	0		0	
15	Difficulty concentrating		2	0	
16	Difficulty remembering	0		0	
10	Sensitivity to light	0		0	
11	Sensitivity to noise	0		0	
17	Blurred vision	0		0	
24	Feeling slowed down	0		0	

Additional Concussion Symptoms**		Baseline (Oct 7, 2014)		Post-Injury	
		Absent	Present	Absent	Present
8	Difficulty falling or staying asleep		2	0	
12	Irritability, easily annoyed or frustrated	0		0	
13	Sadness	0		0	
2	Feeling numbness or tingling	0		0	
18	ringing in the ear	0		0	
19	Neck pain	0		0	
20	More Emotional	0		0	
21	Feeling Nervous	0		0	
22	Feeling anxious or tense	0		0	
23	Feeling Confused	0		0	
4	Vomiting	0		0	

Do Symptoms get worse with Physical Activity: No

Do Symptoms get worse with Mental or Academic Activity: No

Acknowledgements: Concussion Vital Signs Symptom Scale contains a representative sample of well recognized sports concussion symptoms similar to those found in the CSI - Concussion Symptom Inventory, SCAT2, and the Neurobehavioral Symptom Inventory.

* (CSI) Concussion Symptom Inventory: An Empirically Derived Scale for Monitoring Resolution of Symptoms Following Sport-Related Concussion; Christopher Randolph, Scott Millis, William B. Barr, Michael McCrea, Kevin M. Guskiewicz, Thomas A. Hammeke, James P. Kelly; Archives of Clinical Neuropsychology 24 (2009) 219-229; Public Domain

** SCAT2 - Sport Concussion Assessment Tool 2: This tool has been developed by a group of international experts at the 3rd International Consensus meeting on Concussion in Sport held in Zurich, Switzerland in November 2008. British Journal of Sports Medicine, 2009, volume 43, supplement 1.

*** Neurobehavioral Symptom Inventory: Cicerone, KD: J Head Tr Rehabil 1995;10(3):1-17