



This tool does not constitute, and is not intended to constitute, a standard of medical care. It is a guide derived from the Standardized Concussion Assessment Tool 2 (SCAT2) (McCrory, et al, BJSM '09) and represents a standardized method of evaluating NFL players for concussion consistent with the reasonable, objective practice of the healthcare profession. This guide is not intended to be a substitute for the clinical judgment of the treating healthcare professional and should be interpreted based on the individual needs of the patient and the specific facts and circumstances presented.

NFL Sideline Concussion Assessment Tool: Completed by healthcare professional. Athlete completes symptoms at bottom.

Athlete _____ Position _____ Team _____ Evaluator _____ ATC / MD / DO

Evaluation date _____ time _____ am / pm Injury date _____ time _____ am / pm during Game Practice Other _____

How was the injury identified (check all that apply) if game, call by ATC spotter medical staff self report teammate coach referee other _____ Penalty called Yes No Other circumstances _____

Mechanism of injury head to head elbow to head knee to head ground to head blow to body unknown other mechanism or comments _____

This concussion assessment tool contains an assessment of orientation, memory, concentration, balance & symptoms. This tool is intended to be used in conjunction with your clinical judgment. If ANY significant abnormality is found, a conservative, safety first approach should be adopted. An athlete suspected of sustaining a concussion is a "No Go" and does not return to play in the same game or practice.

ANY OF THE FOLLOWING ARE OBVIOUS SIGNS OF DISQUALIFICATION (i.e. "No Go"):

- | | | | |
|---|--------------------------|---|---|
| 1) LOC or unresponsiveness? (for any period of time) If so, how long? _____ | <input type="checkbox"/> | Y | N |
| 2) Confusion? (any disorientation or inability to respond appropriately to questions) | <input type="checkbox"/> | Y | N |
| 3) Amnesia (retrograde / anterograde)? If so, how long? _____ | <input type="checkbox"/> | Y | N |
| 4) New and/or persistent symptoms: see checklist? (e.g. headache, nausea, dizziness) | <input type="checkbox"/> | Y | N |
| 5) Abnormal neurological finding? (any motor, sensory, cranial nerve, balance issues, seizures) or | <input type="checkbox"/> | Y | N |
| 6) Progressive, persistent or worsening symptoms? If so, consider cervical spine and/or a more serious brain injury (See box below) | <input type="checkbox"/> | Y | N |
- Other _____ **Total Physical Signs Score: (total above Yes scores) of 6 = _____**

Neurological Screen for Cervical Spine and/or More Serious Brain Trauma

- | | | |
|--|---|---|
| Deteriorating mental status? | Y | N |
| Any reported neck pain, cervical spine tenderness or decreased range of motion? | Y | N |
| Pupil reaction abnormal or pupils unequal? | Y | N |
| Extra-ocular movements abnormal and/or cause double vision? (difficulty tracking and/or reading) | Y | N |
| Asymmetry or abnormalities on screening motor or sensory exam? | Y | N |

SAC / ORIENTATION

of 5 = _____

- | | | |
|---|---|---|
| What month is it? | 0 | 1 |
| What is the date today? | 0 | 1 |
| What is the day of the week? | 0 | 1 |
| What year is it? | 0 | 1 |
| What time is it right now? (within an hour) | 0 | 1 |

ORIENTATION / Maddock's Questions

of 5 = _____

- | | | |
|---|---|---|
| Where are we? | 0 | 1 |
| What quarter is it right now? | 0 | 1 |
| Who scored last in the practice / game? | 0 | 1 |
| Who did we play last game? | 0 | 1 |
| Did we win the last game? | 0 | 1 |

SAC / Word Recall: Read list of 5 words 1 per second, ask athlete to repeat list, in any order. (Use of specific lists below optional). For Trial 2 & 3, read the same list of words again and have athlete repeat them back, in any order. One point for each word remembered. You must conduct all 3 trials regardless of their success on trial 1. **Do not tell athlete that delayed recall will be tested**

List 1	Immediate Recall Trials			Alternative Lists		Delayed recall (perform at end of all sideline testing, at least > 5 minutes)
	#1	#2	#3			
elbow	_____	_____	_____	candle	baby	_____
apple	_____	_____	_____	paper	monkey	_____
carpet	_____	_____	_____	sugar	perfume	_____
saddle	_____	_____	_____	sandwich	sunset	_____
bubble	_____	_____	_____	wagon	iron	_____

Total of all three immediate word recalls: out of 15 = _____

Total delayed recall: out of 5 = _____



NFL Sideline Concussion Assessment Tool (continued)

SAC / Concentration: Read string of numbers, ask athlete to repeat backwards. (Use of specific numbers below optional). If correct go to the next string length. If incorrect, read second string (same length) 1 point for each string length correct. Stop after incorrect on both trials. Read digits at rate of 1 digit /sec

Digits Backward:	Alternative digit lists
4-9-3	0 1 6-2-9 5-2-6
3-8-1-4	0 1 3-2-7-9 1-7-9-5
6-2-9-7-1	0 1 1-5-2-8-6 3-8-5-2-7
7-1-8-4-6-2	0 1 5-3-9-1-4-8 8-3-1-9-6-4

SAC / Concentration cont. Months in reverse order
Dec - Nov - Oct - Sept - Aug - Jul - Jun - May - Apr - Mar - Feb - Jan

1 point for months in reverse correctly (<30 sec) = _____

1 point for each sequence correct of 4 = _____

Total of SAC Concentration of 5 = _____

Modified BESS: This is calculated by adding 1 error point for each error during the three 20-sec tests. The maximum total # of errors for any single condition is 10. **The higher the score, the worse is the player's balance.**

Balance testing – types of errors

1. Hands lifted off iliac crest
2. Opening eyes
3. Step, stumble, or fall
4. Moving hip into > 30 degrees abduction
5. Lifting forefoot or heel
6. Remaining out of test position > 5 sec

Shoe wear used for baseline test should be the same/similar to that to be used for the post injury assessment

Which foot tested (non-dominant foot) L R

Double leg stance (feet together) # errors _____

Single leg stance (non dominant foot) # errors _____

Tandem stance (non dominant foot at back) # errors _____

BALANCE SCORE: (summed # of errors) = _____

Signs and symptoms of concussion may be delayed, and therefore it may be prudent to remove an athlete from play, not leave them alone, and serially monitor them over a period of time. WHEN IN DOUBT, TAKE A "TIME OUT"

SCORING (for research purposes)

All Physical Signs Score: (total # Yes) = ___ of 6

Maddock's score: = ___ of 5

All SAC scores: (summed orange boxes) = ___ of 30

Balance Score: (summed BESS Errors) = ___

Symptom Score: (# symptoms reported) = ___ of 24

Symptom Severity: (max 24 X max 6) = ___ of 144

ALL SCORES SHOULD BE COMPARED WITH BASELINE VALUES FOR THE INDIVIDUAL ATHLETE

Symptom Checklist: How do you feel? The athlete should score themselves on the following symptoms, based on

How they feel at the time. (i.e. 0 = not present, 1 = mild, 3 = moderate, 6 = severe)

Headache / head pressure	0 1 2 3 4 5 6	Feeling slowed down	0 1 2 3 4 5 6
Nausea / vomiting	0 1 2 3 4 5 6	Sensitivity to noise	0 1 2 3 4 5 6
Neck pain	0 1 2 3 4 5 6	Sensitivity to light	0 1 2 3 4 5 6
Drowsiness	0 1 2 3 4 5 6	Visual problems/ blurred vision	0 1 2 3 4 5 6
Balance problems	0 1 2 3 4 5 6	Sleeping > usual (if applicable)	0 1 2 3 4 5 6
Dizziness	0 1 2 3 4 5 6	Sleeping < usual (if applicable)	0 1 2 3 4 5 6
Fatigue / low energy	0 1 2 3 4 5 6	Trouble falling asleep (if applicable)	0 1 2 3 4 5 6
Confusion	0 1 2 3 4 5 6	Sadness	0 1 2 3 4 5 6
"Don't feel right"	0 1 2 3 4 5 6	Nervous or anxious	0 1 2 3 4 5 6
Feeling "in a fog"	0 1 2 3 4 5 6	Feeling more emotional	0 1 2 3 4 5 6
Difficulty remembering	0 1 2 3 4 5 6	Irritability	0 1 2 3 4 5 6
Difficulty concentrating	0 1 2 3 4 5 6	Numbness or tingling	0 1 2 3 4 5 6

Do symptoms worsen with physical activity? Y N Total # symptoms = _____ of 24

Do symptoms worsen with mental activity? Y N Symptom Severity (max 24 X max 6) = _____ of 144

Clinical Impression; If you know the athlete well p/t the injury, how different is the athlete acting compared to his usual self? **Check one:** Same Different Unsure