



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

|                         |                                |
|-------------------------|--------------------------------|
| <b>Digits Backward:</b> | <b>Alternative digit lists</b> |
| 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