MILD TRAUMATIC BRAIN INJURY (MTBI)/CONCUSSION EVALUATION & RETURN TO PLAY GUIDELINES

The University of Mississippi Sports Medicine staff will serially evaluate student-athletes with suspected mild traumatic brain injury/concussions by the following protocol developed for the use of University of Mississippi Sports Medicine Staff.

Pre-Season Education

Student athletes will receive a concussion fact sheet within their medical packet. This medical packet must be signed and dated. Athletic trainers and team physicians will review concussion policies yearly and acknowledge in a signed document. Coaches and directors of athletics will review the concussion policy at the initial yearly coaches meeting. Fact Sheets provided by the NCAA will be made available to coaches, team physicians, athletic trainers and the athletics director. If coaches are not present at that yearly meeting then it is the responsibility of the athletic trainer of the sport to present it to those coaches by sport. There should be a signed document that states they have reviewed the policy.

Baseline Testing

ALL ATHLETES WILL COMPLETE an initial screening as part of their PPE which will include history of prior concussions and symptoms. In addition, the following tests will be performed during/close as possible to the PPE to be used as baseline results:

- ImPACT – Neuropsychological Assessment
- Balance Error Scoring System (BESS modified for eyes closed on floor only)
- Once these tests have been completed the team physician will review them and clear the student athlete for participation.

Time of Injury

A. Any student-athlete that exhibits signs, symptoms, or behaviors consistent with a concussive injury (listed below) during practice or competition will be withheld from athletic participation for the remainder of that day. Some possible signs or symptoms may include, but not limited to:

a. Altered level and/or loss of consciousness;

b. Confusion, as evidenced by disorientation to person, time, or place; inability to respond appropriately to questions; inability to process information correctly and/or respond appropriately to analytical questions; or inability to remember assignments and/or plays;

c. Amnesia (antegrade and/or retrograde; immediate or delayed);

d. Abnormal neurological examination (ex: abnormal papillary response, persistent dizziness/vertigo, abnormal balance, etc);

e. New and persistent headache, particularly if accompanied by photosensitivity or other visual disturbances, tinnitus, nausea, vomiting, or dizziness;

f. Any other persistent signs or symptoms of a concussive injury.

B. These student athletes that are suspected of suffering a MTBI/concussion will be evaluated by an ATC or a physician that has had experience with assessing concussions:

a. SCAT5 Evaluation Sheet (within the first 24 hours if possible)
Upon evaluation if any of the following signs/symptoms are present, the Emergency Action Plan must be followed, including transportation for further medical care.

- Glasgow Coma Scale <13
- Prolonged loss of consciousness
- Focal neurological deficit suggesting intracranial trauma or skull fracture
- Repetitive vomiting
- Diminished mental status or neurological signs and symptoms
- Suspected spinal injury.

* Medical personnel with training in the diagnosis, treatment and initial management of acute concussion will be present at all NCAA varsity competitions for all contact sports that are sponsored here at the University of Mississippi. Those sports for The University of Mississippi include: Basketball (Men & Women), Football, Pole Vault, Women’s Soccer.

* Medical personnel with the training in the diagnosis, treatment and initial management of acute concussion will be available for all contact practices that are sponsored here at the University of Mississippi. Those sports for The University of Mississippi include: Basketball (Men & Women), Football, Pole Vault, Women’s Soccer.

**Post-Concussion Follow-Up (24-hours post-injury)**

- **SCAT5**
- Physician evaluation and/or consultation to include cervical spine trauma, skull fracture and brain bleed.
- Contact parent/guardian regarding concussive injury
- Home instruction sheet will be provided to athlete and family member/roommate who will help monitor student athlete over the next 24-48 hours. A copy of the completed home care instruction will be kept with the athlete’s medical records.

The SCAT5 Symptom Evaluation form should be repeated every day until the student-athlete Self-Report no symptoms (SRA), at which time the student-athlete will begin with Step 1 SRA Procedures. If the student-athlete remains symptomatic at 7 days, he/she will follow-up at that time with the team physician of the team physician’s designee.

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**Step 1 Initial Assessment in Asymptomatic Student-Athlete:**

- ImPACT
- SCAT5

The team physician or his/her designee will review IMPACT and SCAT5 results, and if these results are considered to be back within baseline levels, the student-athlete will begin Step 2 with close monitoring by their ATC. If the IMPACT results are still below baseline levels in any of the tested parameters, the test will be repeated in 24-48 hours, and student-athlete will remain in Step 1 unless otherwise directed by the team physician. It should be noted if the athlete experiences reoccurrence of any symptoms during the IMPACT or SCAT5 testing.

**Step 2 Graduated Return to Physical Exertion**

Student-Athlete will begin a graduated return to exertion/activity protocol as recommended by the recent Zurich consensus panel for management of sports-related concussions. This will be done under the close observation of the sport ATC and the student-athlete will be instructed to report any reoccurring symptoms or concerns during these stages. If during any of these stages, the athlete develops symptoms, they will rest for 24 hours and re-start at that step after this time. It is felt that each one of these stages should take around 24 hours to complete, but it is recognized there may be some variability in this based on student-athlete’s injury and prior history.
1. Light aerobic exercise. This may include walking, swimming or stationary cycling keeping heart rate intensity less than 70 percent maximum permitted heart rate. No resistance training.

2. Sport-specific exercise. This may include running drills and routes in football, Skating drills in ice hockey, running drills in soccer, dribbling/shooting drills in basketball. No head-impact activities. May consider light resistance training, weight-lifting without “maxing out” at this stage

3. Non-contact Training Drills. This may include full passing routes in football, passing drills in soccer, more intense running, and may increase resistance activity.

**Step 3 Return to Full Sport Participation**

If the student-athlete progresses through all 3 stages of Step 2 and continues to be completely asymptomatic, the student-athlete will be referred to the team physician or his/her designee for evaluation and consideration for return to full sport activity. Once team physician has cleared the student-athlete to return to full sport activity, they will have at least one session of activity in a practice setting before returning to full game activity. If student-athlete completes full practice session, including contact activity if applicable, they will be considered cleared to return to full game and sport participation. It will be noted that student-athlete will still need to be cognizant of any symptoms and report those to their ATC going forward.

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**Return to Learn**

It is recognized that during the initial period of recovery, the student-athlete should engage in **physical AND cognitive rest** until such time that he/she is asymptomatic. No student-athlete will engage in classroom activity on the same day as a concussion, and may remain at home/dorm as needed. It shall be at the discretion of the University of Mississippi Sports Medicine Staff to recommend removal of student-athlete from any activities that increase concussive symptoms (ie: reading, classroom work, taking tests, sport-specific meetings, etc) as per **Inter-Association Consensus: Diagnosis and Management of Sport-Related Concussion Guidelines**. The student athlete’s academic counselor will be the liaison between the medical staff and academics and will help with any modifications that are needed to the student athlete’s academic schedule. Student disability services, other physicians/specialists (included but not limited to, psychologist, neuropsychologist or, college administrators) will be the team utilized if needed in the transition back to the class room in a manner that is ADAAA compliant. Students athletes with symptoms lasting longer than 2 weeks such as sleep dysfunction, migraines, ocular or vestibular dysfunction or any other mood disorders will be evaluated by the team physician and referred to other specialists as needed. An individualized initial plan will include remaining at home or dorm if light cognitive activity cannot be tolerated or a gradual return to classroom / studying if symptoms allow. Re-evaluation by the team physician will take place if concussion symptoms worsen with academic challenges.

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**Reducing Head Trauma Exposure**

Coaches will be educated to the fact that minimizing head trauma exposure during practices could potentially decrease the amount of MTBI/Concussions. Information from the Year Round Football Practice Contact Guidelines will be recommended as well as coaching proper technique will be emphasized in order to prevent MTBI/Concussion. Other steps such as reducing gratuitous contact
during practice, taking ‘safety-first’ approach to sport, taking the head out of contact, and coaching safe play will all be included in coaches’ education.

MODIFIED BESS BASELINE

ATHLETE’S NAME:_________________________ DATE OF BASELINE: _______________

This balance testing is based on a modified version of the Balance Error Scoring System (BESS).

**Balance Testing**

“I am now going to test your balance. Please take your shoes off, roll up your pants legs above ankle. This test will consist of 3- twenty second tests with different stances.”

(a) Double Leg Stance:

“Please stand with your feet together, hands on your hips, and with your eyes closed. You should try to maintain stability in that position for 20 seconds. I will be counting the number of times you move out of this position. I will start timing when you are set and have closed your eyes.”

(b) Single Leg Stance:

“Stand on your Non-Dominant foot. The dominant leg should be held at 30deg of hip flexion and 45deg of knee flexion. Again, you should try to maintain stability for 20 seconds with your hands on your hips and eyes closed.”

(c) Tandem Stance:

“Now stand heel-to-toe with your non-dominant foot in back. Again, you should try to maintain stability for 20 seconds with your hands on your hips and eyes closed. If you stumble out of this position, open your eyes and return to the start position and continue balancing.”

**Balance testing – types of error**

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

Each of the 20sec trials is scored by counting the # of errors. The modified BESS is calculated by adding one error point for each error during the trials. The maximum total # of errors for any single trial is 10. Subjects that are unable to maintain the testing procedure for a minimum of 5sec are assigned a “10” for total number of errors.

Which foot was tested?  □ L  □ R

<table>
<thead>
<tr>
<th>Test Description</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Double Leg Stance</td>
<td>_____ of 10</td>
</tr>
<tr>
<td>Single Leg Stance</td>
<td>_____ of 10</td>
</tr>
<tr>
<td>Tandem Stance</td>
<td>_____ of 10</td>
</tr>
<tr>
<td>BESS Score = 30 minus # of Errors</td>
<td></td>
</tr>
<tr>
<td>BESS SCORE</td>
<td>_____ of 30</td>
</tr>
</tbody>
</table>
WHAT IS THE SCAT5?

The SCAT5 is a standardized tool for evaluating concussions designed for use by physicians and licensed healthcare professionals. The SCAT5 cannot be performed correctly in less than 10 minutes.

If you are not a physician or licensed healthcare professional, please use the Concussion Recognition Tool 5 (CRT5). The SCAT5 is to be used for evaluating athletes aged 13 years and older. For children aged 12 years or younger, please use the Child SCAT5.

Preseason SCAT5 baseline testing can be useful for interpreting post-injury test scores, but is not required for that purpose. Detailed instructions for use of the SCAT5 are provided on page 7. Please read through these instructions carefully before testing the athlete. Brief verbal instructions for each test are given in italics. The only equipment required for the tester is a watch or timer.

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Recognise and Remove

A head impact by either a direct blow or indirect transmission of force can be associated with a serious and potentially fatal brain injury. If there are significant concerns, including any of the red flags listed in Box 1, then activation of emergency procedures and urgent transport to the nearest hospital should be arranged.

Key points

- Any athlete with suspected concussion should be REMOVED FROM PLAY, medically assessed and monitored for deterioration. No athlete diagnosed with concussion should be returned to play on the day of injury.
- If an athlete is suspected of having a concussion and medical personnel are not immediately available, the athlete should be referred to a medical facility for urgent assessment.
- Athletes with suspected concussion should not drink alcohol, use recreational drugs and should not drive a motor vehicle until cleared to do so by a medical professional.
- Concussion signs and symptoms evolve over time and it is important to consider repeat evaluation in the assessment of concussion.
- The diagnosis of a concussion is a clinical judgment, made by a medical professional. The SCAT5 should NOT be used by itself to make, or exclude, the diagnosis of concussion. An athlete may have a concussion even if their SCAT5 is "normal".

Remember:

- The basic principles of first aid (danger, response, airway, breathing, circulation) should be followed.
- Do not attempt to move the athlete (other than that required for airway management) unless trained to do so.
- Assessment for a spinal cord injury is a critical part of the initial on-field assessment.
- Do not remove a helmet or any other equipment unless trained to do so safely.
IMMEDIATE OR ON-FIELD ASSESSMENT

The following elements should be assessed for all athletes who are suspected of having a concussion prior to proceeding to the neurocognitive assessment and ideally should be done on-field after the first first aid / emergency care priorities are completed.

If any of the "Red Flags" or observable signs are noted after a direct or indirect blow to the head, the athlete should be immediately and safely removed from participation and evaluated by a physician or licensed healthcare professional.

Consideration of transportation to a medical facility should be at the discretion of the physician or licensed healthcare professional.

The GCS is important as a standard measure for all patients and can be done serially if necessary in the event of deterioration in conscious state. The Maddocks questions and cervical spine exam are critical steps of the immediate assessment; however, these do not need to be done serially.

STEP 1: RED FLAGS

RED FLAGS:
- Neck pain or tenderness
- Double vision
- Weakness or tingling/burning in arms or legs
- Severe or increasing headache
- Seizure or convulsion
- Loss of consciousness
- Deteriorating conscious state
- Vomiting
- Inconsistently restless, agitated or combative

STEP 2: OBSERVABLE SIGNS

Witnessed □ Observed on Video □
Lying motionless on the playing surface Y N
Balance / gait difficulties / motor incoordination: stumbling, slow / laboured movements Y N
Disorientation or confusion, or an inability to respond appropriately to questions Y N
Blank or vacant look Y N
Facial injury after head trauma Y N

STEP 3: MEMORY ASSESSMENT

MADDOCKS QUESTIONS

"I am going to ask you a few questions, please listen carefully and give your best effort. First, tell me what happened?"

Mark Y for correct answer / N for incorrect

- What venue are we at today? Y N
- Which half is it now? Y N
- Who scored last in this match? Y N
- What team did you play last week / game? Y N
- Did your team win the last game? Y N

STEP 4: EXAMINATION

GLASGOW COMA SCALE (GCS)

<table>
<thead>
<tr>
<th>Time of assessment</th>
<th>Date of assessment</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Best eye response (E)</th>
</tr>
</thead>
<tbody>
<tr>
<td>No eye opening</td>
</tr>
<tr>
<td>Eye opening in response to pain</td>
</tr>
<tr>
<td>Eye opening to speech</td>
</tr>
<tr>
<td>Eyes opening spontaneously</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Best verbal response (V)</th>
</tr>
</thead>
<tbody>
<tr>
<td>No verbal response</td>
</tr>
<tr>
<td>Incomprehensible sounds</td>
</tr>
<tr>
<td>Inappropriate words</td>
</tr>
<tr>
<td>Confused</td>
</tr>
<tr>
<td>Oriented</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Best motor response (M)</th>
</tr>
</thead>
<tbody>
<tr>
<td>No motor response</td>
</tr>
<tr>
<td>Extension to pain</td>
</tr>
<tr>
<td>Abnormal flexion to pain</td>
</tr>
<tr>
<td>Flexion / Withdrawal to pain</td>
</tr>
<tr>
<td>Localizes to pain</td>
</tr>
<tr>
<td>Obey commands</td>
</tr>
</tbody>
</table>

Glasgow Coma score (E + V + M)

CERVICAL SPINE ASSESSMENT

Does the athlete report that their neck is pain free at rest? Y N
If there is NO neck pain at rest, does the athlete have a full range of ACTIVE pain free movement? Y N
Is the limb strength and sensation normal? Y N

In a patient who is not lucid or fully conscious, a cervical spine injury should be assumed until proven otherwise.
OFFICE OR OFF-FIELD ASSESSMENT

Please note that the neurocognitive assessment should be done in a distraction-free environment with the athlete in a resting state.

STEP 1: ATHLETE BACKGROUND

Sport / team / school: ______________________________
Date / time of injury: ______________________________
Years of education completed: ______________________
Age: ______________________
Gender: M / F / Other
Dominant hand: left / neither / right
How many diagnosed concussions has the athlete had in the past?: ______________________
When was the most recent concussion?: ______________________
How long was the recovery (time to being cleared to play) from the most recent concussion?: ______________________ (days)

Has the athlete ever been:

Hospitalized for a head injury? ______________________  Yes  No
Diagnosed / treated for headache disorder or migraines? Yes  No
Diagnosed with a learning disability / dyslexia? Yes  No
Diagnosed with ADD / ADHD? Yes  No
Diagnosed with depression, anxiety or other psychiatric disorder? Yes  No

Current medications? If yes, please list:
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________

STEP 2: SYMPTOM EVALUATION

The athlete should be given the symptom form and asked to read this instruction paragraph out loud then complete the symptom scale. For the baseline assessment, the athlete should rate his/her symptoms based on how he/she typically feels and for the post injury assessment the athlete should rate their symptoms at this point in time.

Please Check: □ Baseline □ Post-Injury

Please hand the form to the athlete

<table>
<thead>
<tr>
<th>Symptom</th>
<th>none</th>
<th>mild</th>
<th>moderate</th>
<th>severe</th>
</tr>
</thead>
<tbody>
<tr>
<td>Headache</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>“Pressure in head”</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Neck Pain</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Nausea or vomiting</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Dizziness</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Blurred vision</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Balance problems</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Sensitivity to light</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Sensitivity to noise</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Feeling slowed down</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Feeling like “in a fog”</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>“Don’t feel right”</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Difficulty concentrating</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Difficulty remembering</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Fatigue or low energy</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Confusion</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Drowsiness</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>More emotional</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Irritability</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Sadness</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Nervous or Anxious</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Trouble falling asleep (if applicable)</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
</tbody>
</table>

Total number of symptoms: of 22
Symptom severity score: of 132

Do your symptoms get worse with physical activity? Y N
Do your symptoms get worse with mental activity? Y N

If 100% is feeling perfectly normal, what percent of normal do you feel?

If not 100%, why?

Please hand form back to examiner

Name: ______________________________
DOB: ______________________________
Address: __________________________
ID number: _________________________
Examiner: _________________________
Date: ______________________________
## STEP 3: COGNITIVE SCREENING

### Standardised Assessment of Concussion (SAC)

#### ORIENTATION

<table>
<thead>
<tr>
<th>Question</th>
<th>0</th>
<th>1</th>
</tr>
</thead>
<tbody>
<tr>
<td>What month is it?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>What is the date today?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>What is the day of the week?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>What year is it?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>What time is it right now? (within 1 hour)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Orientation score**

#### IMMEDIATE MEMORY

The Immediate Memory component can be completed using the traditional 5-word per trial list or optionally using 10-words per trial to minimise any ceiling effect. All 3 trials must be administered irrespective of the number correct on the first trial. Administer at the rate of one word per second.

**Immediate Memory Score**

<table>
<thead>
<tr>
<th>List</th>
<th>Alternate 5 word lists</th>
<th>Score (of 5)</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>Finger Penny Blanket Lemon Insect</td>
<td></td>
</tr>
<tr>
<td>B</td>
<td>Candle Paper Sugar Sandwich Insect</td>
<td></td>
</tr>
<tr>
<td>C</td>
<td>Baby Monkey Perfume Sunset Wagon</td>
<td></td>
</tr>
<tr>
<td>D</td>
<td>Elbow Apple Carpet Saddle Bubble</td>
<td></td>
</tr>
<tr>
<td>E</td>
<td>Jacket Arrow Pepper Cotton Movie</td>
<td></td>
</tr>
<tr>
<td>F</td>
<td>Dollar Honey Mirror Saddle Anchor</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>List</th>
<th>Alternate 10 word lists</th>
<th>Score (of 10)</th>
</tr>
</thead>
<tbody>
<tr>
<td>G</td>
<td>Finger Penny Blanket Lemon Insect</td>
<td></td>
</tr>
<tr>
<td>H</td>
<td>Baby Monkey Perfume Sunset Iron</td>
<td></td>
</tr>
<tr>
<td>I</td>
<td>Jacket Arrow Pepper Cotton Movie</td>
<td></td>
</tr>
</tbody>
</table>

**Time that last trial was completed**

### CONCENTRATION

#### DIGITS BACKWARDS

Please circle the Digit list chosen (A, B, C, D, E, F). Administer at the rate of one digit per second reading DOWN the selected column.

**Concentration Number Lists (circle one)**

<table>
<thead>
<tr>
<th>List</th>
<th>Alternate 5 word lists</th>
<th>Score (of 5)</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>Finger Penny Blanket Lemon Insect</td>
<td></td>
</tr>
<tr>
<td>B</td>
<td>Candle Paper Sugar Sandwich Insect</td>
<td></td>
</tr>
<tr>
<td>C</td>
<td>Baby Monkey Perfume Sunset Wagon</td>
<td></td>
</tr>
<tr>
<td>D</td>
<td>Elbow Apple Carpet Saddle Bubble</td>
<td></td>
</tr>
<tr>
<td>E</td>
<td>Jacket Arrow Pepper Cotton Movie</td>
<td></td>
</tr>
<tr>
<td>F</td>
<td>Dollar Honey Mirror Saddle Anchor</td>
<td></td>
</tr>
</tbody>
</table>

**Immediate Memory Score**

<table>
<thead>
<tr>
<th>List</th>
<th>Alternate 10 word lists</th>
<th>Score (of 10)</th>
</tr>
</thead>
<tbody>
<tr>
<td>G</td>
<td>Finger Penny Blanket Lemon Insect</td>
<td></td>
</tr>
<tr>
<td>H</td>
<td>Baby Monkey Perfume Sunset Iron</td>
<td></td>
</tr>
<tr>
<td>I</td>
<td>Jacket Arrow Pepper Cotton Movie</td>
<td></td>
</tr>
</tbody>
</table>

**Digits Score:**

### MONTHS IN REVERSE ORDER

Now tell me the months of the year in reverse order. Start with the last month and go backward. So you’ll say December, November. Go ahead.

**Months Score**

© Concussion in Sport Group 2017
Name: ____________________________
DOB: ____________________________
Address: __________________________
ID number: ________________________
Examiner: _________________________
Date: _____________________________

STEP 4: NEUROLOGICAL SCREEN

See the instruction sheet (page 7) for details of test administration and scoring of the tests.

- Can the patient read aloud (e.g. symptom checklist) and follow instructions without difficulty? Y N
- Does the patient have a full range of pain-free PASSIVE cervical spine movement? Y N
- Without moving their head or neck, can the patient look side-to-side and up-and-down without double vision? Y N
- Can the patient perform the finger nose coordination test normally? Y N
- Can the patient perform tandem gait normally? Y N

STEP 5: DELAYED RECALL:

The delayed recall should be performed after 5 minutes have elapsed since the end of the Immediate Recall section. Score 1 pt. for each correct response.

Do you remember that list of words I read a few times earlier? Tell me as many words from the list as you can remember in any order.

Time Started ____________

Please record each word correctly recalled. Total score equals number of words recalled.

Total number of words recalled accurately: of 5 or of 10

STEP 6: DECISION

<table>
<thead>
<tr>
<th>Domain</th>
<th>Date &amp; time of assessment:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Symptom number (of 22)</td>
<td></td>
</tr>
<tr>
<td>Symptom severity score (of 132)</td>
<td></td>
</tr>
<tr>
<td>Orientation (of 5)</td>
<td></td>
</tr>
<tr>
<td>Immediate memory</td>
<td>of 15 of 30</td>
</tr>
<tr>
<td>Concentration (of 5)</td>
<td>of 15 of 30</td>
</tr>
<tr>
<td>Neuro exam</td>
<td>Normal Abnormal</td>
</tr>
<tr>
<td>Balance errors (of 30)</td>
<td>Normal Abnormal</td>
</tr>
<tr>
<td>Delayed Recall</td>
<td>of 5 of 10</td>
</tr>
</tbody>
</table>

Date and time of injury: ____________________________

If the athlete is known to you prior to their injury, are they different from their usual self?
☐ Yes ☐ No ☐ Unsure ☐ Not Applicable
(If different, describe why in the clinical notes section)

Concussion Diagnosed?
☐ Yes ☐ No ☐ Unsure ☐ Not Applicable

If re-testing, has the athlete improved?
☐ Yes ☐ No ☐ Unsure ☐ Not Applicable

I am a physician or licensed healthcare professional and I have personally administered or supervised the administration of this SCAT5.

Signature: ____________________________

Date: _____________________________

SCORING ON THE SCAT5 SHOULD NOT BE USED AS A STAND-ALONE METHOD TO DIAGNOSE CONCUSSION, MEASURE RECOVERY OR MAKE DECISIONS ABOUT AN ATHLETE’S READINESS TO RETURN TO COMPETITION AFTER CONCUSSION.

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CONCUSSION INJURY ADVICE
(To be given to the person monitoring the concussed athlete)

This patient has received an injury to the head. A careful medical examination has been carried out and no sign of any serious complications has been found. Recovery time is variable across individuals and the patient will need monitoring for a further period by a responsible adult. Your treating physician will provide guidance as to this timeframe.

If you notice any change in behaviour, vomiting, worsening headache, double vision or excessive drowsiness, please telephone your doctor or the nearest hospital emergency department immediately.

Other important points:

Initial rest: Limit physical activity to routine daily activities (avoid exercise, training, sports) and limit activities such as school, work, and screen time to a level that does not worsen symptoms.

1) Avoid alcohol
2) Avoid prescription or non-prescription drugs without medical supervision. Specifically:
   a) Avoid sleeping tablets
   b) Do not use aspirin, anti-inflammatory medication or stronger pain medications such as narcotics
3) Do not drive until cleared by a healthcare professional.
4) Return to play/sport requires clearance by a healthcare professional.

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Clinic phone number: _______________________________
Patient’s name: _______________________________
Date / time of injury: _______________________________
Date / time of medical review: _______________________________
Healthcare Provider: _______________________________

Contact details or stamp
Graduated Return-to-Play Protocol*
Rehabilitation stage Functional exercise at each stage of rehabilitation Objective of each stage

1. No activity. Symptom-limited physical and cognitive rest. Recovery.

2. Light aerobic exercise. Walking, swimming or stationary cycling keeping Increase heart rate. intensity less than 70 percent maximum permitted heart rate. No resistance training.


4. Noncontact training drills. Progression to more complex training drills, Exercise, coordination e.g. passing drills in football and ice hockey. and cognitive load. May start progressive resistance training.

5. Full-contact practice. Following medical clearance, participate in normal Restore confidence training activities. and assess functional skills by coaching staff.

6. Return to play. Normal game play

* 2013 International Conference on Concussion in Sport. Zurich, Switzerland.
CONCUSSION FLOW CHART

Suspected Head Injury

Evaluate: Concussion
Remove from Competition

Evaluate: No Concussion
Return to Competition

Within 1st 24 hours
• SCAT5
• Eval by Physician if available

24 hours post-incident
• SCAT5 Symptom Evaluation
• Eval/Consult by Physician

Self Report Symptomatic
• Cont SCAT5 Symptom Evaluation every 24 hours until Self-Report Asymptomatic (SRA)

Step 1 SRA
• ImPACT
• SCAT5

Step 2 SRA
• ImPACT
• Gradual Return to Physical Exertion

Step 3 SRA
• Return to full sport participation

Reevaluation by Team Physician and/or designee for full return to activity

If symptoms recur while performing one of the SRA steps, wait 24 hours, then proceed with the same level as before.

Once asymptomatic, proceed to the next step
CONCUSSION: HOME INSTRUCTION SHEET

Name: ________________________________  Date___________

You have had a head injury or concussion and need to be watched closely for the next 24-48 hours.

**IT IS OK TO:**
- Use Tylenol (acetaminophen)
- Apply ice to head/neck for comfort
- Eat a light meal
- Go to sleep

**DO NOT:**
- Drink ALCOHOL
- Eat spicy foods
- Use aspirin, Aleve, Advil (Ibuprofen), or any other NSAID products

**WATCH FOR ANY OF THE FOLLOWING PROBLEMS:**
- Worsening headache
- Stumbling/loss of balance
- Vomiting
- Weakness in one arm/leg
- Decreased level of consciousness
- Blurred Vision
- Dilated (large) pupils
- Increased irritability
- Increased confusion

If any of these problems develop, call your athletic trainer immediately.

Athletic Trainer: ____________________  Phone: ____________

Recommendations provided to: __________________________

Recommendations provided by: __________________________
I accept responsibility for reporting any injuries or illnesses to the Ole Miss Sports Medicine staff, including signs and symptoms of concussions.

My signature below shows that I acknowledge and have been presented with educational material regarding concussions, and understand that it is my responsibility to report any signs and symptoms.
WHAT IS A CONCUSSION?
A concussion is a brain injury that:
• Is caused by a blow to the head or body from contact with another player, hitting a hard surface such as the ground, floor, or being hit by a piece of equipment such as a bat, or ball, etc.
• Can change the way your brain normally works.
• Can range from mild to severe.
• Presents itself differently for each athlete.
• Can occur during practice or competition in ANY sport.
• Can happen even if you do not lose consciousness.

WHAT ARE THE SYMPTOMS OF A CONCUSSION?
You can’t see a concussion, but you might notice some of the symptoms right away. Other symptoms can show up hours or days after the injury.
Concussion symptoms include:
• Amnesia.
• Confusion.
• Headache.
• Loss of consciousness.
• Balance problems or dizziness.
• Double or fuzzy vision.
• Sensitivity to light or noise.
• Nausea (feeling that you might vomit).
• Feeling sluggish, foggy or groggy.
• Feeling unusually irritable.
• Concentration or memory problems (forgetting plays, facts, meeting times).
• Slowed reaction time.

Exercise or activities that involve a lot of concentration, such as studying, working on the computer, or playing video games may cause concussion symptoms (such as a headache or tiredness) to reappear or get worse.

HOW CAN I PREVENT A CONCUSSION?
Basic steps you can take to protect yourself from concussion:
• Do not initiate contact with your head or helmet. You can still get a concussion if you are wearing a helmet.
• Avoid striking an opponent in the head. Undercutting, flying elbows, and stepping on a head are all ways to cause concussion.
• Follow your athletics department’s rules for safety and the rules of the sport.
• Practice good sportsmanship at all times.
• Practice and perfect the skills of the sport.

WHAT SHOULD I DO IF I THINK I HAVE A CONCUSSION?
Don’t hide it. Tell your athletic trainer and coach. Never ignore a blow to the head. Also, tell your athletic trainer and coach if one of your teammates might have a concussion. Sports have injury timeouts and player substitutions so that you can get checked out.

Report it. Do not return to participation in a game, practice or other activity with symptoms. The sooner you get checked out, the sooner you may be able to return to play.

Get checked out. Your Sports Medicine Staff can tell you if you have had a concussion, and when you are cleared to return to play. A concussion can affect your ability to perform everyday activities, your reactions time, balance, sleep, and classroom performance.

Take time to recover. If you have had a concussion, your brain needs time to heal. While your brain is still healing, you are much more likely to have a repeat concussion. In rare cases, repeat concussions can cause permanent brain damage, and even death. Severe brain injury can change your whole life.

WHEN IN DOUBT, GET CHECKED OUT.