

Sport Related Concussion Evaluation and Treatment Protocol

Defined

Sport Related Concussion- SRC: is immediate and transient symptoms of traumatic brain injury. SRCs do not distinguish different grades of severity; predict persistence of symptoms, or the extent to which the brain is impaired. May result from a direct blow to any part of the body that transmits force to the head. Impairments may be rapid or delayed, and can resolve quickly, spontaneously, become prolonged, or evolve into a more serious nature. *The acute signs and symptoms largely reflect a functional disturbance rather than a structural injury.* Abnormalities may or may not be apparent on neuroimaging studies.

As recommended by the NCAA the Albright College Sports Medicine Department will utilize the ImPACT Concussion Management System to record baseline neuropsychological testing scores on student-athletes that participate in all NCAA sponsored intercollegiate sports. These values will be utilized in conjunction with symptom assessment, physician's exam, Sport Concussion Assessment Tool (SCAT 5) exam, Balance Error Scoring System (BESS), follow-up ImPACT testing and exertion testing to evaluate a student-athletes recovery from SRC and aid in return to play decision making.

Suspected Diagnosis of an SRC is determined by sideline evaluation on; recognition of injury, assessment of symptoms, cognitive and cranial nerve function, and balance. This can include one or more of the following:

- ✓ Somatic, cognitive, or emotional symptoms or impairments
- ✓ Physical signs
- ✓ Balance impairment
- ✓ Behavioral changes
- ✓ Sleep/wake disturbances

Pre-Season Baseline Testing:

Athletes will be educated on the signs, symptoms and risks associated with concussions. Prior to the first practice (or first contact practice), all athletes must have completed a baseline assessment (BESS and ImPACT) which will be kept on file with the certified athletic trainers. This assessment will include a review of their concussion history documented in their health history questionnaire and baseline ImPACT neuropsychological testing. All athletes will sign a statement accepting the responsibility of reporting their injuries and illnesses to the athletic training staff.

Time of Injury/ Evaluation:

All student athletes suspected of having sustained a Sport Related Concussion (SRC) will undergo the following:

- ✓ Sport Related Concussion / Concussion Symptom Evaluation Form Completed by ATC
- ✓ SCAT 5 Evaluation Completed by ATC
- ✓ BESS Evaluation Completed by ATC
- ✓ ImPact Sideline testing on iPad
- ✓ Exertion Testing will be completed under ATC supervision (if appropriate)
- ✓ Athlete given SRC/ Head Injury Guidelines Sheet (roommate present if possible)
- ✓ ImPACT computerized testing
- ✓ Appointment made for follow up evaluation

If the student athlete reports symptoms **and / OR** has altered results on the SCAT 5 and BESS tests, exertion testing will **NOT** be performed. If symptoms **or** altered test results persist for more than 15 minutes post injury the athlete will be held from returning to competition that day and will follow the SRC treatment protocol.

Athletes that report no symptoms **and** have completed SCAT 5 **and** BESS testing will undergo exertion testing. If the athlete remains asymptomatic with exertion testing within 15 minutes of injury they should be re-evaluated for return to play.

The student-athlete requires transportation to the emergency room for evaluation if he /she experience **ANY** of the following:

- ✓ Any loss of consciousness observed by the Certified Athletic Trainer
- ✓ Significant alteration or deterioration in condition or mental status
- ✓ Any increase in symptoms
- ✓ If there is any concern that the athlete may have a subdural hematoma

Post- SRC Follow –up (24-48 hours):

- ✓ Athlete will be re-evaluated 24 hours post injury by ATC and as soon as possible by Dr. Williamson as designated by Gable Health Center hours of operation.
- ✓ Evaluation will include SCAT 5, Graded Symptom checklist, SOAP note to Mild Traumatic Brain Injury Evaluation Form

Return to Learn

- ✓ Dr. Williamson will determine whether the athlete will require educational disability services.
- ✓ A note will be available for professors and athletic training staff to hold from class, meetings, film, practices, etc.

48 hours until Self-Reported Asymptomatic:

- ✓ Student Athlete will report to the Athletic Training Room daily to complete Graded Symptom checklist and evaluation until they self-report themselves as asymptomatic.
- ✓ Will report to Dr. Williamson PRN.
- ✓ Once self-reported asymptomatic the student athlete will begin Day 1 Self- Report Asymptomatic Phase(SRA)

Day 1 Self- Reported Asymptomatic (SRA):

- ✓ Complete Graded Symptom Checklist (if still reporting no symptoms proceed to next)
- ✓ SCAT 5 Exam
- ✓ ImPACT Testing

If the student athlete reports any symptoms during testing **or** has ImPACT test values that have not returned to baseline values the athlete will return to the previous phase. ImPACT Testing will not be performed again until they are asymptomatic for 48 hours.

If the student athlete remains asymptomatic during testing **and** has ImPACT test values that have returned to baseline values they will be permitted to begin exertion testing phase 1. The test will be stopped immediately and the student-athlete will be monitored if signs or symptoms appear during a functional test, until all signs or symptoms resolve. When the athlete is again symptom free, he / she will need to move back at least one phase in the progression and begin again from there

- ✓ Stationary Bike 15 minutes (intensity dependent on sport)

Day 2 Self-Reported Asymptomatic (SRA) Exertion Testing Phase 2:

- ✓ Moderate aerobic exercise, no resistance training
 - Continuous jogging 10-20 min, target HR> 140-170 bpm

Day 3 Self-Reported Asymptomatic (SRA) Exertion Testing Phase 3:

- ✓ Sprinting (anaerobic exertion)
 - Minimum of 5 sprints of 30 yards, minimum of 10 push-ups & sit-ups

Day 4 Self-Reported Asymptomatic (SRA) Exertion Testing Phase 4:

- ✓ Non-Contact agility drills, non-contact practice
 - Dribbling, shooting, walk-through, skill activities

Day 5 Self-Reported Asymptomatic (SRA) Exertion Testing Phase 5:

- ✓ Full- contact practice
 - Have athlete continue to complete graded symptom checklist after a minimum of 3 practice days and 1 competition

Athletes will not return to full participation (Phase 5) until the college physician or his designee clears them.

Persistent Symptoms

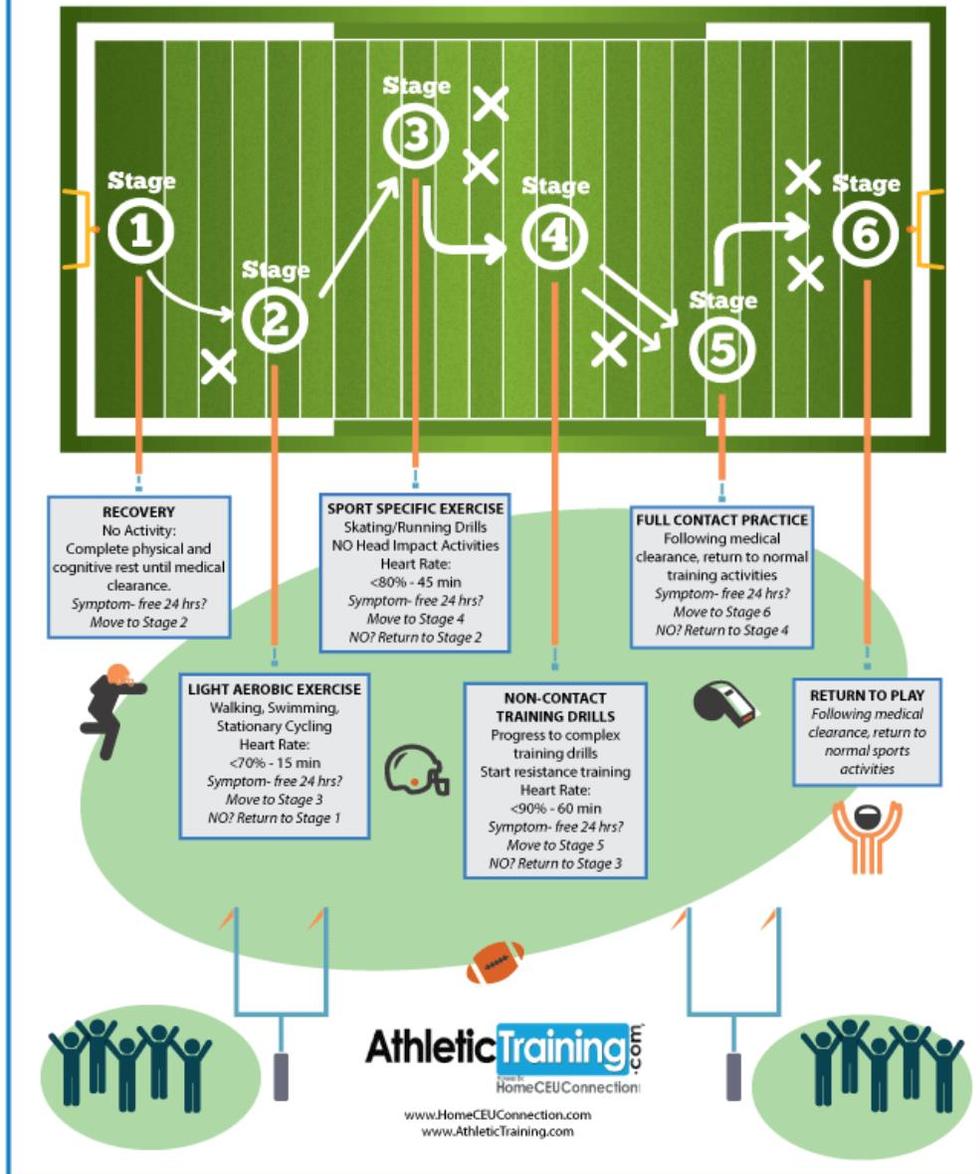
Defined: Persistent post-concussive symptoms that reflect failure of normal clinical recovery, symptoms persist beyond expected time frames; (>10-14 days Adults; >4 weeks in children)

Could be linked to coexisting and/or confounding factors, which may not necessarily reflect ongoing physiological injury to the brain.

Refer! Healthcare providers who have experience in SRC should manage difficult cases in a multidisciplinary collaborative setting.

Graduated Return To Play Protocol: Getting Your Athlete Back in the Game Safely

Unique challenges arise from sports-related concussions. Careful decisions need to be made about safe return to practice and play after a period of recovery.



Sources

<http://www.sportsconcussion.com/what-is-the-return-to-play-protocol>
http://www.concussiontreatment.com/images/SCI_RTP_Illustration.pdf
http://www.cdc.gov/headsup/providers/return_to_activities.html

Any use of this material must be done in concert with physician direction and is not a recommendation of the Board of Certification.