

East Central Independent School District

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Athletic Department Concussion Policy and Return To Play Protocol

Definitions

Concussion⁽¹⁾: A concussion is defined as a complex patho-physiological process affecting the brain, induced by traumatic biomechanical forces. Several common features that incorporate clinical, pathologic and biomechanical injury constructs that may be utilized in defining the nature of a concussive head injury include:

1. Concussion may be caused either by a direct blow to the head, face or neck or a blow elsewhere on the body with an “impulsive” force transmitted to the head.
2. Concussion typically results in the rapid onset of short-lived impairment of neurologic function that resolves spontaneously.
3. Concussion may result in neuro-pathological changes but the acute clinical symptoms largely reflect a functional disturbance rather than a structural injury.
4. Concussion results in a graded set of clinical symptoms that may or may not involve loss of consciousness. Resolution of the clinical and cognitive symptoms typically follows a sequential course. In a small percentage of cases, however, post-concussive symptoms may be prolonged.
5. No abnormality on standard structural neuro-imaging studies is seen in concussion.

Second Impact Syndrome⁽²⁾: Second impact syndrome (SIS) refers to catastrophic events which may occur when a second concussion occurs while the athlete is still symptomatic and healing from a previous concussion. The second injury may occur within days or weeks following the first injury. Loss of consciousness is not required. The second impact is more likely to cause brain swelling with other widespread damage to the brain. This can be fatal. Most often SIS occurs when an athlete returns to activity without being symptom free from the previous concussion.

⁽¹⁾The suspected diagnosis of concussion can include one or more of the following clinical domains:

- 1) Symptoms – somatic (eg, headache), cognitive (eg, feeling like in a fog) and /or emotional symptoms (eg, liability).
- 2) Physical signs (eg, loss of consciousness, amnesia).
- 3) Behavioral changes (eg, irritability).
- 4) Cognitive impairment (eg, slowed reaction times).
- 5) Sleep disturbance (eg, drowsiness).

If any one or more of these components is present, a concussion should be suspected and the appropriate management strategy instituted.

Baseline Testing

Any baseline test is recommended prior to the beginning of the season. Examples of baseline tests include:

- 1) Computerized testing – ImPACT, CogState, Axon
- 2) SAC (Standardized Assessment of Concussion)
- 3) BESS (Balance Error Scoring System)
- 4) SCAT2 or SCAT3 (Sport Concussion Assessment Tool) – The SCAT is a combination of (The SAC-Standardized Assessment of Concussion, Modified BESS-Balance Error Scoring System, Symptom Checklist, & Glasgow Coma Scale). A reaction time test and simple neurologic screening, upper/lower extremity strength test and the full BESS test can also be added.
- 5) King-Devick

On-Site Athletic Trainer Evaluation Process

The on-site Athletic Trainer will be responsible for evaluating and administering the proper treatment plan for athletes that sustain a concussion. If the Athletic Trainer from the visiting team's school is present, he/she may choose to administer the treatment plan as they deem appropriate (e.g., varsity football game).

- 1) Sideline Evaluation – no Loss of Consciousness
 - a. ECISD Athletic Trainers will use the SAC, SCAT2 or King-Devick sideline test for athletes they suspect of sustaining a concussion.
 - b. Any sideline test that Athletic Trainers from other districts deem appropriate may be used when evaluating visiting ECISD teams. It should incorporate balance testing as well as cognitive testing.
- 2) Sideline Evaluation – Loss of Consciousness
 - a. Athletic Trainer will evaluate athlete using appropriate sideline test and refer athlete to ER.

Documentation Process

Each suspected concussion should be documented by the Athletic Trainer that performs the initial evaluation.

- 1) High School – Athletic Trainer should notify head coach and parents.
- 2) Middle School – Should be documented by head coach and referred to Athletic Trainer as soon as possible. The head coach may also be responsible for notifying the parents, or the Athletic Trainer may assume this responsibility.

The following people should be kept in the communication circle for any athlete that sustains a concussion:

Coaches, Parents, School Nurse, Teachers, School Counselors, School Administrators (as deemed appropriate by Staff Athletic Trainer)

Documents

- 1) SAC, SCAT2 or King-Devick baseline/sideline evaluation Form
- 2) Parent Concussion Info/Home Instruction/ECISD RTPP Form
- 3) Physician Concussion Release Form
- 4) UIL Concussion Management Protocol Return to Play Form

Return to Play Protocol (Criteria)

⁽¹⁾The return to play protocol follows a stepwise progression of activity until full return. Generally each step takes 24 hours to complete. **If at any symptoms of a concussion return during the progression, the athlete will stop activity immediately. The athlete will resume**

****A written release must be provided to the Athletic Trainer from the treating physician before the Return to Play Protocol can begin.****

- 1) Concussion with no Loss of Consciousness
 - a. Release from treating physician.
 - b. *Step one* – Asymptomatic for 24 continuous hours AND a return to baseline normal range.
 - c. *Step two* – Light aerobic exercise (e.g., stationary bike/treadmill for 10-15 minutes).
 - d. *Step three* – Sport specific conditioning. Goal is to have athlete sweat and increase heart rate.
 - e. *Step four* – Non-contact training drills. Practice with no contact (e.g., no pads in football).
 - f. *Step five* – Full contact practice.
 - g. *Step Six* – Return to full play. (*UIL Concussion Management Protocol Return to Play Form* must be completed and on file)
- 2) Multiple Concussions (Second concussion within 6 month period) or Concussion with Loss of Consciousness
 - a. Out of all activity for a minimum of one week (7 continuous days).
 - b. Release from treating physician.
 - * **Once these two criteria have been met and the athlete has been cleared by the treating physician he/she may begin the return to play protocol.**
 - c. *Step one* – Asymptomatic for 24 continuous hours AND a return to baseline normal range.
 - d. *Step two* – Light aerobic exercise (e.g., stationary bike for 10-15 minutes).
 - e. *Step three* – Sport specific conditioning. Goal is to have athlete sweat and increase heart rate.
 - f. *Step four* – Non-contact training drills. Practice with no contact (e.g., no pads in football).
 - g. *Step five* – Full contact practice.
 - h. *Day Six* – Return to full play. (*UIL Concussion Management Protocol Return to Play Form* must be completed and on file)

Appendices

- a) SAC, SCAT2 or King-Devick baseline/sideline evaluation Form
- b) Parent Concussion Info/Home Instruction/ ECISD RTPP Form
- c) Physician Concussion Release Form
- d) UIL Concussion Management Protocol Return to Play Form

REFERENCES

- 1) McCrory, P., et al. Consensus statement on concussion in sport – The 3rd International Conference on concussion in sport, held in Zurich, November 2008. *Journal of Clinical Neuroscience*, pg. 755-763. Feb. 2009.
- 2) Summary Statement by the Quality Standards Subcommittee of the American Academy of Neurology. Practice Parameter: The Management of Concussion in Sports. *Neurology*, pg. 581-585. 1997.