

# **FISD Athletic Department Guidelines for Concussion Management**

## **Introduction**

The Centers for Disease Control (CDC) estimates that there are approximately 300,000 cases of mild traumatic brain injury (MTBI) or concussions annually in the United States as the result of participation in sports. The Sports Concussion Institute estimates that 10 percent of athletes in contact sports suffer a concussion during a season. A 2006 report estimated that there were 92,000 cases of concussions in American high School sports annually, and that these rates seem to be increasing. Also of concern is the risk of repeated concussions and second impact syndrome to our young athletes. These two problems can have long lasting, and even terminal effects, on the individual. In order to have a standard method of managing concussions to FISD athletes, the following guidelines are intended to serve as a written protocol for concussion management.

The UIL has adopted a new mandate voted on and passed by Texas State Legislature House Bill 2038. The bill is found under Chapter 38. Sub Chapter D of the Texas Education Code (TEC)

## **Definitions**

**Concussion or Mild Traumatic Brain Injury (MTBI)** - A concussion or MTBI is the common result of a blow to the head or body which causes the brain to move rapidly within the skull. This injury causes brain function to change which results in an altered mental state (either temporary or prolonged). Physiologic and/or anatomic disruptions of connections between some nerve cells in the brain occur. Concussions can have serious and long-term health effects, even from a mild bump on the head. Symptoms include, but are not limited to, brief loss of consciousness, headache, amnesia, nausea, dizziness, confusion, blurred vision, ringing in the ears, loss of balance, moodiness, poor concentration or mentally slow, lethargy, photosensitivity, sensitivity to noise, and a change in sleeping patterns. These symptoms may be temporary or long lasting.

**Second Impact Syndrome** – 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.

**Terms Associated with a Concussion-** Bell ringer, Slobber knocker, Dinger, Buzzed, Rattled, Cobwebs, No one's home but the light are on. These are terms that can be used to describe or classify a concussion.

## What can happen if my child keeps on playing with a concussion?

Athletes with the signs and symptoms of concussion should be removed from play immediately. Continuing to play with the signs and symptoms of a concussion leaves the young athlete especially vulnerable to greater injury. There is an increased risk of significant damage from a concussion for a period of time after that concussion occurs, particularly if the athlete suffers another concussion before completely recovering from the first one. This can lead to prolonged recovery, or even to severe brain swelling (second impact syndrome) with devastating and even fatal consequences. It is well known that adolescent or teenage athletes will often under report symptoms of injuries. And concussions are no different. As a result, education of administrators, coaches, parents and students is the key for student-athlete's safety.

### Prevention Strategies

1. All headgear must be NOCSAE certified.
2. Make sure the headgear fits the individual.
3. For all sports that require headgear, a coach or appropriate designate should check headgear before use to make sure air bladders work and are appropriately filled. Padding should be checked to make sure they are in proper working condition.
4. Make sure helmets are secured properly at all times.
5. Mouth guards should fit and be used at all times. They also need to be checked throughout the season to maintain their integrity and proper function.
6. Neuro-psychology testing on students that participate in contact sports prior to season to form a baseline.

### Evaluation for Concussion/MTBI

1. At time of injury administer one of these assessment tests:
  - a. Sports Concussion Assessment Tool (SCAT) – Appendix A & B
  - b. Graded Symptom Checklist (GSC) – Appendix C
  - c. Sideline Functional & Visual Assessments
  - d. On-field Cognitive Testing
2. Observe athlete 15 to 20 minutes and re-evaluate.
3. **Athlete does not return to a game or practice if he/she shows any signs and/or symptoms of a concussion or if a coach, athletic trainer, parent or other health care provider suspects a concussion.**
4. Doctor Referral – Appendix E
5. Home Instructions – Appendix F
6. Return to Play Guidelines for Athlete – Appendix G
7. First neurocognitive retest 48 hours after injury. Other tests may be administered as needed throughout the evaluation period.
8. **Note - If in doubt, athlete is referred to doctor and does not return to play.**

### Concussion Management

1. School modifications
  - a. Notify school nurse and all classroom teachers of the student that he/she has MTBI
  - b. Notify teachers of post concussion symptoms

- c. Ask teachers to contact you with concerns or observations of abnormal student behavior
  - d. Student may need special accommodations such as limited computer work, reading activities, testing, assistance to class, etc. until symptoms subside
  - e. Student may only be able to attend school for half days or may need daily rest periods until symptoms subside
2. **Student must be symptom free for 24 hours and cleared by a physician before begin return to play protocol.**

### Return to Play Guidelines

1. Physician clearance
2. Activity progressions
  - a. No activity until cleared by physician to start return to play protocol.
  - b. Athlete must be symptom free
  - c. Light aerobic exercise with no resistance training
  - d. Sport specific activity
  - e. Non-contact training drills with resistance training
  - f. Full contact training drills (must have physician clearance)
  - g. **Note – Athlete progression continues as long as athlete is asymptomatic at current level. If the athlete experiences any post concussion symptoms, you wait 24 hours and start over at the previous step.**
3. Component scores of neurocognitive test are normal and within normal limits of baseline.
4. Athletic Trainer clearance per FISSD concussion guidelines.

### Middle School Reporting Steps and Return to Play Guidelines

**If a middle school athlete is suspected of sustaining a concussion then they will need to follow up with a physician. Once confirmed the middle school coach needs to inform the feeder school’s athletic trainer of the situation. They will then follow the FISSD return to play guidelines.**

- A. After symptom free and clearance from physician to start progression, a middle school coach or feeder school athletic trainer will administer a return to play protocol that is set up by the physician. If one is not clearly stated by a physician then the feeder school athletic trainer can provide one for that athlete. The following is an example of one type of progression.
  1. Day 1: Jog one lap on the track at half speed. Then jog second lap at a slightly faster rate.
  2. Day 2: Jog a warm-up lap. Have the athlete run one half gasser. Then have them do pro-shuttle drill or ladder drill for one minute continuous. Give them a short break and repeat drill.
  3. Day 3: Jog one warm-up lap. Run one lap at about  $\frac{3}{4}$  speed. After a short break have the athlete perform two sets 15 push-ups and 25 crunches.

4. Day 4: Jog one warm-up lap. Complete the following sets three times run one full gasser, do 10 push-ups, and 20 crunches.
5. **After progression is met, then the athlete, parent and middle school coach needs to schedule a time to meet with the feeder school's athletic trainer to discuss the clearance of that athlete. (Physicians clearance will be needed before this can happen)**

## References

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7. [www.momsteam.com/healthsafety/concussion](http://www.momsteam.com/healthsafety/concussion)
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