Introduction

Approximately 10 percent of all athletes involved in contact sports suffer a Mild Traumatic Brain Injury (concussion) each season; some estimates are as high as 19 percent. Because many mild concussions can go undiagnosed and unreported, it is difficult to estimate precisely the rate of concussion in any sport. Symptoms are not always definite, and knowing when it is safe for an athlete to return to play is not always clear.

The recognition and management of concussions in athletes can be difficult for a number of reasons: Athletes who have experienced a concussion can display a wide variety of symptoms. Although the classic symptoms of loss of consciousness, confusion, memory loss, and/or balance problems may be present in some athletes with mild traumatic brain injury, there may or may not be obvious signs that a concussion has occurred.

Post-concussion symptoms can be quite subtle and may go unnoticed by the athlete, team medical staff, or coaches. Many coaches and other team personnel may have limited training in recognizing signs of concussions and therefore may not accurately diagnose the injury when it has occurred. Players may be reluctant to report concussive symptoms for fear that they will be removed from the game, and this may jeopardize their status on the team, or their athletic careers.

Houston ISD is in compliance with HB 2038, 82(R). A student that is removed from an athletics practice or competition will not be permitted to practice or compete again until the student had been evaluated and cleared to play through a written statement by a physician. The student's parent or guardian and student will have to return the physician's statement and complete a consent form indicating that they have been informed and consent to the policies established under the return-to-play Concussion protocol; understands the risks associated with the student's returning to play and will comply with any on-going requirements outlined by the concussion policy; consented to the physician's disclosure of health information that was related to the concussion treatments; and understands the district or school immunity from liability provisions. The Houston ISD Concussion Oversight Team consists of:

Gary Nicol LAT–Athletic Trainer
Theresa Ripperger ATC, LAT- Athletic Trainer
Tashare Lewis LAT – Athletic Trainer

Joseph Chorley MD-Team Physician
Summer Ott, Psy.D.- Neuropsychologist
Rick Nixon M D –Team Physician
Recovery and safe return-to-play

It is crucial to allow enough healing and recovery time following a concussion to prevent further damage. Research suggests that the effects of repeated concussions are cumulative over time.

Most athletes who experience an initial concussion can recover completely as long as they do not return to contact sports too soon. Following a concussion, there is a period of change in brain function that may last anywhere from 24 hours to 10 days. During this time, the brain may be vulnerable to more severe or permanent injury. If the athlete sustains a second concussion during this time period, the risk of permanent brain injury increases.

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, 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. Symptoms can also include a loss of consciousness but many do not. 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.

Prevention Strategies

Helmets, headgear, and mouth guards do not prevent concussions, but are recommended to prevent skull and facial fractures as well as dental injuries.

1. Insist that safety comes first.
2. Teach athletes the dangers of playing with a concussion.
3. All headgear must be NOCSAE certified.
4. Make sure the headgear fits the individual.
5. 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.

6. Make sure athletes wear the right protective equipment for their activity (such as helmets, padding and mouth guards)

Evaluation for Concussion/MTBI

1. At time of injury administer one of these assessment tests:
   a. Sports Concussion Assessment Tool (SCAT2)
   b. Graded Symptom Checklist (GSC)
   c. Sideline Functional and Visual Assessments
   d. On-Field Cognitive Testing

2. Athlete does not return to a game or practice if he/she has any signs or symptoms of Mild Traumatic Brain Injury (Concussion)

3. Observe athlete for status changes every 15 to 20 minutes.

4. Coach will bring helmet of concussed player to athletic trainer.

5. Doctor Referral

6. Home Instructions

7. Return to Play Guidelines for Parents

8. Note –If in doubt, athlete is referred to physician and does not return to play.

Concussion Management

1. Recommended school modifications
   a. Coach will notify school administrators of the student that he/she has MTBI
   b. Coach will notify school administrators of post-concussion symptoms
   c. Student may need special accommodations such as limited computer work, reading activities, testing, assistance to class, etc. until symptoms subside
   d. Student may only be able to attend school for half days or may need daily rest periods until symptoms subside with physician authorization

2. Student must show no signs of post-concussion symptoms before return to play protocol begins.

3. Student will not return to full practice or competition for minimum of 7 days.
4. The treating physician must provide a written statement to the parent and athletic trainer indicating that, in the physician's professional judgment, it is safe for the student to return to play.

5. Student athlete and the parent/guardian have signed the form acknowledging the completion of the return to play guidelines which includes understanding the risks associated with the student athlete's return to play.

6. Athletes that have a history of multiple concussions or that have persistent symptoms or indicating cognitive difficulties following concussion will be referred to neurocognitive assessment with a concussion specialist.

Return to Play Guidelines

Athlete must show no signs of post-concussion symptoms before return to play protocol begins.

1. Athlete activity progressions
   a. No activity for at 48-72 hours after injury & athlete is symptom free
   b. Physician clearance to begin activity
   c. Light aerobic exercise with no resistance training 10-15 minutes (e.g., walking, stationary bike)
   d. Moderate aerobic activity with resistance training 20-25 minutes (e.g., running, light weights-No squat, dead lift or bench press)
   e. Sport specific activity and non-contact training drills. Heavy exertion, at least 30 minutes (e.g., non-contact training or non-contact practice)
   f. Full practice including light contact activities (e.g., head balls in soccer, sleds in football)
   g. Full practice – Full contact
   h. Return to full participation (pending physician clearance)

Note - Athlete activity progression continues as long as athlete is asymptomatic at current level. If the athlete experiences any post-concussion symptoms, stop physical activity until symptom free for 24-48 hours. Resume with phase or level in which they were previously asymptomatic.

2. Physician clearance

3. Parent clearance

4. Athletic Trainer clearance
To the parent/guardian of _________________________ Date: ______________

Your son/daughter has been evaluated and has sustained an injury assessed as a possible concussion. Your child has been removed from athletic participation based on this evaluation.

Please read the attached “Parental Information and Consent Form for Concussions” for more information for concussions. You made also find more information at the following link:


Be alert for signs and symptoms that worsen over time. Your child should be seen in an emergency room right away if he/she has:

- Loss of consciousness
- Headache that worsen with time
- Slurred Speech
- Extreme drowsiness or cannot be awaken
- Repeated vomiting or nausea
- Difficulty recognizing people or places
- Weakness or numbness
- Convulsions or seizures
- One pupil is larger than the other
- Increasing confusion, restlessness, or agitation
- Clear fluid or blood draining from the ear or nose

According to Texas State Law, your son/daughter may not return to play until the following are completed:

- The student athlete must be evaluated by a physician of the parent’s choosing (if parent need help, athletic trainer will be available)
- Clearance by the physician
- Clearance by the Athletic Trainer after successful completion of the return to play protocol including stages of exertion.
- The UIL return to play form must be signed and returned after completing the above steps.

If you have any questions or concerns, please contact:

Name of School personnel: ________________________________

Phone: ________________________________
What is a concussion?

A concussion is an injury to the brain. It is caused by a bump, blow, or jolt to either the head or the body that causes the brain to move rapidly within the skull. The resulting injury to the brain changes how the brain functions in a normal manner. The signs and symptoms of a concussion can show up immediately after the injury or may not appear for hours or days after the injury. Concussions can have serious long-term health effects, and even a seemingly mild injury can be serious. A major concern with any concussion is returning to play too soon. Having a second concussion before healing can take place from the initial or previous concussion can lead to serious and potentially fatal health conditions.

What are the symptoms of a concussion?

Signs and symptoms of a concussion are typically noticed right after the injury, but some might not be recognized until days after the injury. Common symptoms include: headache, dizziness, amnesia, fatigue, confusion, mood changes, depression, poor vision, sensitivity to light or noise, lethargy, poor attention or concentration, sleep disturbances, and aggression. The individual may or may not have lost consciousness.

What should be done if a concussion is suspected?

1. Immediately remove student from practice or game
2. Seek medical attention right away
3. Do not allow the student to return to play until proper medical clearance and return to play guidelines have been followed. The permission for return to play will come from the appropriate health care professional or professionals.

If you have any questions concerning concussions or the return to play policy, you may contact your stadium athletic trainer.

What should the athlete know about playing with a concussion?

Teach athletes it’s not smart to play with a concussion. Rest is the key after a concussion. Sometimes athletes, parents, and other school or league officials wrongly believe that it shows strength and courage to play injured. Discourage others from pressuring injured athletes to play. Don't let your athlete convince you that they’re "just fine".
What are the risks of returning to activity too soon after sustaining a concussion?

Prevent long-term problems. If an athlete has a concussion, their brain needs time to heal. Don't let them return to play the day of the injury and until a health care professional, experienced in evaluating concussions, states they are symptom-free and OK to return to play. A repeat concussion that occurs before the brain recovers from the first—usually within a short time period (hours, days, weeks)—can slow recovery or increase the chances for long-term problems.

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 underreport 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.

Liability Provisions

The student and the student's parent or guardian or another person with legal authority to make medical decisions for the student understands this policy does not:

1. Waive any immunity from liability of a school district or open-enrollment charter school or of district of charter school officers or employees;

2. Create any liability for a cause of action against a school district or open-enrollment charter school or against district or charter school officers or employees;

3. Waive any immunity from liability under Section 74.151, Civil Practice and Remedies Code;

4. Create any liability for a member of a concussion oversight team arising from the injury or death of a student participating in an interscholastic athletics practice or competition, based only on service on the concussion oversight team.
Houston ISD Parental Information and Consent Form for Concussions

By signing this form, I understand the risks and dangers related with returning to play too soon after a concussion. Furthermore, in the event that my son/daughter is diagnosed with a concussion, I give my consent for my son/daughter to participate in and comply with the Houston ISD return to play Concussion protocol. The undersigned, being a parent, guardian, or another person with legal authority, grants this permission.

Athlete's Name (print) ______________________________________________

Parent's or Guardian's Name (print) __________________________________

Parent's or Guardian's Signature _____________________________________

Date: ________________________________
Houston ISD Return to Play Guidelines for Parents
General Information for Parents

Teach it's not smart to play with a concussion. Rest is the key after a concussion. Sometimes athletes, parents, and other school or league officials wrongly believe that it shows strength and courage to play injured. Discourage others from pressuring injured athletes to play. Don't let your athlete convince you that they're "just fine."

Prevent long-term problems. If an athlete has a concussion, their brain needs time to heal.

Don't let them return to play the day of the injury and until a health care professional, experienced in evaluating for concussion, says they are symptom-free and it's OK to return to play. A repeat concussion that occurs before the brain recovers from the first-usually within a short time period (hours, days, weeks)-can slow recovery or increase the chances for long-term problems.

Houston ISD has developed a protocol for managing concussions. This policy includes a multidiscipline approach involving athletic trainer clearance, physician referral and clearance, and successful completion of activity progressions related to their sport. The following is an outline of this procedure. Your son/daughter must pass all of these tests in order to return to sport activity after having a concussion.

1. All athletes who sustain head injuries are required to be evaluated by a physician. They must have a normal physical and neurological exam prior to being permitted to progress to activity. This includes athletes who were initially referred to an emergency department.

2. The student will be monitored daily at school by the athletic trainer and/or school nurse. His/her teachers will be notified of their injury and what to expect. Accommodations may need to be given according to physician recommendations and observations.

3. The student must be asymptomatic at rest and exertion.

4. Once cleared to begin activity, the student will start a progressive step-by-step procedure outlined in the following steps. The progressions will advance at the rate of one step per day. The progressions are:

   a. Return to play protocol will begin at least 72 hours after injury. The athlete must be symptom free. A minimum of 7 days before a full practice or competition will begin.

   b. Physician clearance to begin activity

   c. Light aerobic exercise with no resistance training 10-15 minutes (e.g., walking, stationary bike)

   d. Moderate aerobic activity with resistance training 20-25 minutes (e.g., running, light weights-No squat, dead lift or bench press)

   e. Sport specific activity and non-contact training drills Heavy exertion, at least 30 minutes (e.g., on-contact training or non-contact practice)
f. Full practice including light contact activities (e.g., head balls in soccer, sled in football)

g. Full Practice-Full Contact

h. Return to full participation (pending physician clearance)

Note - Athlete progression continues as long as athlete is asymptomatic at current activity level. If the athlete experiences any post-concussion symptoms, he/she will wait 24-48 hours and start the progressions again at the beginning.

5. Upon completion of the return to play protocol, the physician of record must provide a written statement that in the physician's professional judgment it is safe for the athlete to return to play. This paperwork must be submitted to the stadium athletic trainer.

6. Once the student has completed steps 1 through 5, he/she may return to their sport activity with no restrictions.
Symptoms for Concussion Referral

Day of Injury Referral

1. Loss of consciousness on the field
2. Amnesia
3. Increase in blood pressure
4. Cranial nerve deficits
5. Vomiting
6. Motor deficits subsequent to initial on-field exam
7. Sensory deficits subsequent to initial on-field exam
8. Balance deficits subsequent to initial on-field exam
9. Cranial nerve deficits subsequent to initial on-field exam
10. Post-concussion symptoms that worsen
11. Additional post-concussion symptoms as compared with those on the field
12. Athlete is symptomatic at the end of the game
13. Deterioration of neurological function*
14. Decreasing level of consciousness*
15. Decrease or irregularity in respiration*
16. Decrease or irregularity in pulse*
17. Unequal, dilated or unreactive pupils*
18. Any signs or symptoms of associated injuries, spine or skull fracture or bleeding*
19. Mental status changes: lethargy, difficulty maintaining arousal, confusion, or agitation*
20. Seizure activity*

Note: * indicates that the athlete needs to be transported immediately to the nearest emergency department.
Delayed Referral (after the day of the injury)

1. Any of the findings in the day of injury referral category

2. Post-concussion symptoms worsen or do not improve over time

3. Increase in the number of post-concussion symptoms reported

4. Post-concussion symptoms begin to interfere with the athlete’s daily activities (i.e. sleep, cognition, depression, aggression, etc.)
Dear Teacher,

__________________________ is returning to school after having sustained a concussion. A concussion is a complex injury to the brain caused by movement of the brain within the skull. Please observe this student during class. He/she may still be suffering from post-concussion syndrome and may not be able to participate at their normal level. Some things you may notice are headaches, dizziness, nausea, lethargy, moodiness, blurred vision, poor concentration, mentally slow, depression, or aggression. These symptoms may be temporary or long lasting.

Because these symptoms may linger for an unspecified period of time, you may need to modify school work until he/she is symptom free. Also, if you see anything unusual, please notify me as soon as possible, or contact the school nurse. I will keep you informed of any medical updates that are pertinent to the classroom. The school nurse is aware of the injury, and you may consult with her at any time.

Also his/her counselors and the appropriate administrators are aware of the injury.

You are an important member of the team that is treating ____________________________ for their head injury. The physician and I only get a small snapshot of his daily activity. Therefore, any information that you can pass along to us is both appreciated and necessary to the successful recovery from the concussion.

If you have any further questions, please contact me.

Name __________________________________________

Title __________________________________________

Phone Number _________________________________
| [ ] Appears to be dazed or stunned | [ ] Headache |
| [ ] Is confused about assignment | [ ] Nausea |
| [ ] Forgets plays | [ ] Balance problems or dizziness |
| [ ] Is unsure of game, score, or opponent | [ ] Double or fuzzy vision |
| [ ] Moves clumsily | [ ] Sensitivity to light or noise |
| [ ] Answers questions slowly | [ ] Feeling sluggish |
| [ ] Loses consciousness (even temporarily) | [ ] Feeling "foggy" |
| [ ] Shows behavior or personality change | [ ] Change in sleep pattern |
| [ ] Forgets events prior to hit (retrograde amnesia) | [ ] Concentration or memory problems |
| [ ] Forgets events after hit (anterograde amnesia) | |

Observations reported by (name): ___________________________ Title: ___________________________

RETURN TO PLAY
GUIDELINES
Athletes must complete the following stepwise process prior to return to play following a concussion:

1. **Removal from contest following any signs/symptoms of concussion**
2. **No return to play in current game**
3. **Medical evaluation following injury**
4. **Stepwise return to play once medically cleared**
   a. No activity until symptom free at rest
   b. DAY 1 - Light aerobic exercise
   c. DAY 2 - Moderate aerobic exercise with resistance training
   d. DAY 3 - Sport-specific training (heavy exertion-non-contact training & drills/non-contact practice)
   e. DAY 4 - Full practice - Light contact (sleds in football, heading in soccer)
   f. DAY 5 - Full-contact drills (minimum 7 days post-injury)
   g. DAY 6 - Game play

**NOTE** – Athlete activity progression continues as long as athlete is asymptomatic at current level. If athlete experiences any post-concussion symptoms, stop physical activity until symptom free for 24 hours. Resume with phase or level in which they were previously asymptomatic.

I, (print) ___________________________ the parent/guardian AND the above student athlete have acknowledged that the student has completed the requirements of the return-to-play protocol necessary for the student to return to play; have provided the treating physician’s written statement to the person responsible for compliance with the return-to-play protocol and the person who has supervisory responsibilities under; and by signing this consent form indicating that the person signing: has been informed concerning and consents to the participant participating in returning to play in accordance with the return-to-play protocol; understands the risks associated with the student returning to play and will comply with any ongoing requirements in the return-to-play protocol; consents to the disclosure to appropriate persons, consistent with the Health Insurance Portability and Accountability Act of 1996 (Pub. L. No. 104-191), of the treating physician’s written statement and, if any, the return-to-play recommendations of the treating physician; and understands the immunity provisions under Section 38.159.

Parent Signature: ___________________________ Student Signature: ___________________________
Date: ___________________________

PHYSICIAN INFORMATION

Physician’s Recommendations:

Physician’s Signature: ___________________________ Date: ________________ Phone: ________________
Concussion Management Protocol
Return to Play Form

This form must be completed and submitted to the athletic trainer or other person (who is not a coach) responsible for compliance with the Return to Play protocol established by the school district Concussion Oversight Team, as determined by the superintendent or their designee (see Section 38.157 (c) of the Texas Education Code).

__________________________  ____________________________
Student Name (Please Print)  School Name (Please Print)

Designated school district official verifies:

Please Check

D The student has been evaluated by a treating physician selected by the student, their parent or other person with legal authority to make medical decisions for the student.

D The student has completed the Return to Play protocol established by the school district Concussion Oversight Team.

D The school has received a written statement from the treating physician indicating, that in the physician's professional judgement, it is safe for the student to return to play.

__________________________  ____________________________
School Individual Signature  Date

__________________________  ____________________________
School Individual Name (Please Print)  Date

Parent, or other person with legal authority to make medical decisions for the student signs and certifies that he/she:

Please Check

D Has been informed concerning and consents to the student participating in returning to play in accordance with the return to play protocol established by the Concussion Oversight Team.

D Understands the risks associated with the student returning to play and will comply with any ongoing requirements in the return to play protocol.

D Consents to the disclosure to appropriate persons, consistent with the Health Insurance Portability and Accountability Act of 1996 (Pub. L. No. 104-191), of the treating physician's written statement under Subdivision (3) and, if any, the return to play recommendations of the treating physician.

D Understands the immunity provisions under Section 38.159 of the Texas Education Code.

__________________________  ____________________________
Parent/Responsible Decision-Maker Signature  Date

__________________________  ____________________________
Parent/Responsible Decision-Maker Name (Please Print)  Date
Please place a check in the appropriate box if you experienced any of the following symptoms during school or with the exercise you completed today.

ATHLETE’S NAME: 

SPORT: 

<table>
<thead>
<tr>
<th>Symptom</th>
<th>Phase 1</th>
<th>Phase 2</th>
<th>Phase 3</th>
<th>Phase 4</th>
<th>Phase 5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Date</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Trouble concentrating</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Trouble remembering</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Drowsiness</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Feeling “in a fog” Feeling like your brain is slowed</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Feeling like your brain is slowed down</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Balance problems</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Blurry vision</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dizziness</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Headache</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nausea/vomiting</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Neck pain</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Numbness or tingling</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

This athlete has completed the school district’s return to play protocol for his/her sport. To the best of my knowledge, the student is symptom free at rest and did not experience any return of symptoms while progressing through the various stages of activity.

Date: 

Name - Athletic Trainer or Coach (Print): 

Signature of Athletic Trainer or Coach: 

Print School District and School Name: 