

Traumatic Brain Injuries/Concussion Standard of Care Tucson Unified School District

I. *Introduction and Purpose*

A concussion is an injury to the brain and may occur without loss of consciousness. Children and teens are more likely to sustain a concussion than their adult counterparts. Each year it is estimated that emergency rooms treat approximately 135,000 sport and recreation related head injuries in individuals between the ages of 5 and 18.

The purpose of this protocol is to establish a standard plan to respond to traumatic brain injuries and concussions. Concussions/traumatic brain injuries are commonplace in the athletic arenas. TUSD recognizes this fact and aims to prepare students in recognition and treatment of these injuries.

II. *What is a traumatic brain injury or TBI?*

A TBI is an open or closed injury to the head that can cause: 1) swelling in the brain, 2) bleeding in the brain and/or 3) a lack of oxygen delivery to parts of the brain; these conditions may result in temporary or permanent damage to the brain.

III. *What is a concussion?*

A concussion is usually classified as a mild traumatic brain injury. A concussion refers to an injury that changes how the brain normally functions, but usually does not cause structural changes within the brain. This change could be as mild as ringing in the ears or as serious as loss of consciousness. No matter how insignificant some signs and symptoms may appear, the importance of recognition and proper treatment of these individuals is essential.

Second Impact Syndrome results from an individual returning to play/activity prior to the signs and symptoms of the initial concussion subsiding. This places the individual at a greater risk of sustaining a second and more severe injury because the effects of the two injuries are cumulative. The impact needed for this second impact is much less and the consequences can be fatal. It is vitally important that individuals follow strict return to play guidelines to ensure safe participation and decrease the possibility of second impact syndrome.

Second Injury Syndrome is when an individual has sustained multiple concussions throughout their lifetime. The effects of multiple concussions are cumulative and can have devastating effects on the individual. It is important for individuals to track the number of head injuries sustained along with the accompanying signs and symptoms to assure adequate treatment of any ensuing injury.

Post Concussion Syndrome is a complex disorder in which a combination of post-concussion symptoms, such as headaches and dizziness, last for weeks and sometimes months after the injury that caused the concussion. The severity of the initial injury shows no direct correlation to the duration of signs and symptoms.

IV. *How a TBI and Concussions Affect Children*

TBI's affect each individual differently. There are short and long-term effects which may diminish over time. Children respond differently than adults in that a child's brain is still developing and the outcome/recovery from their injury will be unique depending on the overall development and adaptations of the child's brain. As their brain adapts to the injury over time, ranging from days to several months, their deficits will become evident. These deficits often include:

1. Cognitive effects
 - memory (both short- and long-term)
 - attention
 - concentration and higher order thinking
2. Speech and language effects
 - word retrieval
 - difficulty in comprehension of the spoken word
 - difficulty with verbalization
3. Behavioral effects
 - frustration with their injury
 - coping with and accepting their injury results in low self-esteem, depression, abnormal behaviors and outbursts

V. *Complicating Factors*

Children will maintain some of their pre-injury athletic or cognitive skills that may mislead educators and coaches and give them the impression of higher level of cognitive abilities. Some may interpret this as normal brain function. Often there may be gaps in the child's memory of previously learned material or skills, which may not be evident. Baseline testing of cognition, reaction time and balance may allow a better approach in determining overall brain function comparable to a pre-injury state.

Academics Return to Learn Protocol

I. *TBI and School- Return to Learn*

Traumatic brain injuries may interfere with the student's ability to actively participate in their education. Every concussion will have a unique set of signs and symptoms that will affect each student differently. The student may present signs and symptoms that require special modifications or accommodations. Some of these accommodations may be minor, lasting for a short period of time, while others are long-term, requiring the institution of a 504 plan. Proper management of the academic workload during a student's recovery from a head injury is imperative to avoid prolonging the recovery process and potentially damaging the student's academic record. A collaborative approach is necessary to identify and treat those individuals who have suffered a head injury.

II. *When are Accommodations Needed?*

It is the responsibility of the student, parents/guardians or school personnel to inform the school of a suspected TBI/concussion. Appropriate medical personnel will determine the severity of the head injury. Not every head injury will require a physician's evaluation. Additionally, not every concussion will require academic accommodations or the formation of concussion management team (CMT). The treating physician recommended accommodations are valid for up to 4 weeks. After 4 weeks new recommendations are required.

III. *Concussion Management Team*

The Concussion Management Team (CMT) is a group of individuals who work together to identify and assist individuals who have sustained a significant head injury where accommodations are needed. A CMT may be formed if a student has signs and symptoms lasting more than 4 weeks or as determined by a physician specializing in concussions/traumatic brain injuries.

The team members should include at a minimum the student, their parent/guardian, and a representative from the school. Ideally, school personnel may include one or more of the following professionals: counselor, nurse, teachers, school psychologist, administrator, physician or athletic trainer. As personnel vary by school, the members of the CMT will also be different at each site.

For each CMT, a Concussion Management Lead will be identified to serve as the central communicator and will coordinate the academic and medical aspects of the situation. In some situations, two leads may be identified to assist with their respective areas: an Academic Leader and a Medical Leader. If a two-leader model is adapted, it is imperative that the two leaders communicate on a regular basis and relay information to all members of the CMT.

IV. *Creating a Plan*

The CMT has the responsibility to assist individuals who have sustained a head injury upon their reentry into the academic setting. Upon return to school, the student may require a needs assessment performed by qualified personnel to determine the student's medical and academic deficiencies. Other information that needs to be taken into consideration includes doctor's recommendations, testing from the school psychologist, meetings with parents/guardians and input from the teacher, school nurse or athletic trainer. If the treating physician did not give the student a plan, the CMT may create a plan using all available information to guide the accommodations needed by the student.

The Return to Learn Accommodations (Appendix A) or TBI/Concussion School Support Plan (Appendix B) may be utilized by the CMT to communicate required accommodation information to teachers. As the student progresses through recovery, the accommodations may be modified and a new form utilized. Throughout the process, concerns from the student, parents/guardians, teachers or others involved in the educational process must be communicated with the CMT to ensure adequate academic accommodation are in place. It is important that the accommodations assigned to the student match the signs and symptoms that are reported by the student. See Appendix F or formal neurocognitive testing results provided by a medical specialist.

V. *Concussion Guidelines for Teachers*

To assist members of the CMT in relaying information to teachers and coaches, the Concussion Guidelines for Teachers color zone guide (see Appendix C) may also be utilized. It is the job of the treating physician or CMT to evaluate the signs and symptoms that the student is experiencing and place the student in the correct color zone. If the student has been evaluated by a physician, the physician may assign the student to one of the color zones.

It is important that all of the parties understand the color zones and the appropriate academic workload included in the color zone placement.

- VI. *Concussions and the School Nurse/Health Assistant*
Head injuries can range from relatively minor (resulting in a bump, bruise or external bleeding) to a seriously debilitating head injury requiring emergency care. Health office personnel will follow the guidelines outlined in the Health Services Head Injury Standard (see Appendix D) to provide care that is appropriate to the level of injury; and to identify the need for emergency care.
- VII. *Concussions and the Counselor*
The role of the school counselor is to help facilitate the student's return to regular academic activities. When available, counselors should serve on the CMT to help facilitate communication between teachers, students and parents; and to clearly outline the expectations and requirements of all parties involved in helping the student return to normal school activities. The counselor should help to develop accommodations (refer to "Pre-Referral Intervention Manual" by Hawthorne), write and implement a 504 plan, assist teachers in determining an appropriate grading scale (use of an incomplete vs letter grade), and make changes or modifications in class schedules.
- VIII. *Contract for Student, Parents and Teachers*
To help ensure adherence of the concussion management plan, the CMT may also implement a Recovery Plan for Student's Academic Success (Appendix E). This plan may include members of the CMT and possibly the student's friends. This contract will outline the responsibilities of the student. The contract can also to serve as a reminder to the student that this plan is to assist their return to the classroom and to use their plan as a means to succeed in the academic setting.
- IX. *Concussions and the Administrator*
Ultimately, it is the role of the school's administrative team to ensure that all school personnel are familiar with TUSD's Concussion/Traumatic Brain Injury Standard of Care. As each school's personnel varies, their roles will also vary. Education of school personnel is key in proper implementation of the plan. The administrative team will help assist with education, implementation and possibly serve on the CMT if needed on a case by case basis. It is important that the school works and communicates as a team.

Interscholastics Return to Play Protocol

I. TBI and Concussions and Sports

You cannot see a concussion like you can other athletic injuries. This makes it very difficult for individuals to determine if a student has sustained a head injury. Furthermore, since the injury is functional and not structural, most medical imaging techniques (CT scans or MRI) may not identify the nature and extent of the injury. All individuals who care for students need to be aware of common signs and symptoms associated with head injuries and act accordingly to provide proper care and ensure safe participation in sports.

II. Education About Concussions

Education of students, parents and school personnel is paramount to successful recognition and treatment of all injuries. TUSD's Interscholastic website has educational information accessible to parents, students and school personnel. This information should be presented to parents/guardians and students at Parent meetings at each school.

The TUSD Interscholastics website has information including a link to the CDC's concussion fact sheet, general information on the treatment of common athletic injuries, fluid and nutrition intake guidelines, common skin conditions and hygiene and heat illnesses. There is also a Student-Athlete Health and Wellness PowerPoint that each coach will be required to review. Upon viewing of the PowerPoint each coach will print and sign the last page stating that they have viewed and understand all information in the presentation and submit it to the Athletics Office at their respective school. This PowerPoint must be viewed every 2 years as the content will be updated as new research becomes available.

III. Baseline Testing

TUSD recommends the use of ImpACT neurocognitive testing for all high school athletes. This testing will be utilized at each site depending on the availability of resources. Upon initial implementation, all athletes should be baseline tested. After the initial year, the baseline test will be performed during the athletes' freshman and junior years. As new student-athletes enroll and participate in sports the baseline test will be administered as soon as possible.

It is recognized that this process will take time and coordination between the athletic trainer and coaching staffs. The assistance of the respective coaching staff will be essential to the overall success of the baseline testing. A time will be arranged at the beginning of the designated sports seasons for baseline testing for all athletes. Upon injury, the athlete will be retested and allowed to return to play according to the guidelines in this document.

IV. Grading of Concussions

New practices do not assess a grade to concussions. Each concussion will be evaluated by the certified athletic trainer or properly trained medical personnel and cared for accordingly. The return to play guidelines in this document will be followed and modified to suit each individual, as each situation is unique. It is important for individuals to recognize that the act of assigning a grade to a concussion by some medical personnel will not determine return to play status if the symptoms of the concussion have not subsided.

V. When to Refer a Student to a Physician Following a Concussion

A student-athlete with a concussion should be tracked by the athletic trainer and/or team physician from the time of the injury until the student's condition completely clears or the student is referred for further care. A student self-assessment checklist (See Appendix F) will be utilized to monitor the students' signs and symptoms at assigned intervals.

A student experiencing a sudden decrease in neurologic function, level of consciousness, breathing rate, or pulse; unequal, dilated or unreactive pupils; signs of spine or skull fractures, internal bleeding or injury; a significant decrease in mental status; seizure activity; deterioration of signs or symptoms; or other emergent signs or symptoms should immediately be transported to the emergency department.

Following a concussion, a student should be referred to the emergency department on that day if: he/she experiences loss of consciousness lasting more than approximately 15 seconds; amnesia for 15 minutes or more; vomiting; significant deficits in cranial nerves, motor function, sensory function or balance; post-concussion symptoms that increase incrementally after the injury.

A delayed referral should be made for a student with an increase in the number of symptoms, symptoms that worsen or do not improve over time, or symptoms that interfere with the student's daily activities for a prolonged period.

Finally, if a student experiences a concussion during Type II coverage, the primary role of the coach is to ensure that the student is seen as soon as possible by an athletic trainer or a physician. If a concussion is sustained during Type II coverage, the coach will inform the parent/guardian as to the nature of the injury and necessary care. In the high school setting, the coach also documents by the following workday, via either e-mail or written note to the athletic trainer a brief summary of the injury and actions taken. If the student is in middle school, the coach will notify the health office via email or written notice of the injury according to the interscholastics coaching manual, including a brief summary and actions taken.

VI. *Return to Play Guidelines*

Return to play status will vary according to each individual. TUSD will follow the outline of SB 1521 and similar guidelines as the NCAA. If a student-athlete is believed to have sustained a concussion by either the athletic trainer, official, parent or coach, the student will be disqualified for the remainder of that day. Arizona State Statute SB1521 states that a qualified medical professional must clear any athlete suspected of sustaining a concussion. This QMP is defined as an M.D., D.O., N.P., PA-C, or AT. The NCAA concussion guidelines read, in part: "It is essential that no athlete be allowed to return to participation when any symptoms, including mild headache, persist. It has also been recommended that for any injury that involves significant symptoms, long duration of symptoms or difficulties with memory function not be allowed to return to play during the same day of competition. It has been further demonstrated that retrograde amnesia, post-traumatic amnesia, and the duration of confusion and mental status changes longer than five minutes may be more sensitive indicators of injury severity. Once an athlete is completely asymptomatic, the return-to-play progression should occur in a stepwise fashion with gradual increments in physical exertion and risk of contact."

Return to play progression will include resolution of all signs and symptoms and reassessment and attainment of acceptable score on ImPACT neurocognitive test. If the student was referred to or was evaluated by a physician, a release note is required prior to beginning the progression. It is strongly recommended that the progression back into sport participation take place in the following order:

- Step 1, Day 1: sign and symptom free at rest for a minimum 24 hours post injury
- Step 2, Day 2: sign and symptom free with exertion (biking, jogging, etc)
- Step 3, Day 2: sign and symptom free with sport specific activity non-contact
- Step 4, Day 3: sign and symptom free with sport specific activity contact
- Step 5, Day 4: participation in limited drills full pads
- Step 6, Day 5: full participation

A student may not progress to the next step until completion of the previous step. If s/s reoccur, he/she must return to the first step of the progression.

VII. *Documentation*

The Student Self Assessment will be utilized for all concussions (see Appendix F). All concussions will result in the athletic trainer completing documentation in the athlete's electronic medical record. Risk management will have access to all information entered.

VIII. *Home Care Sheet*

Once a student has sustained a concussion, the home care sheet will be completed and sent home with the parent/guardian (see Appendix E). If the parent/guardian is not present the athletic trainer or coach will notify the parent/guardian via phone and relay all necessary information. This contact with the parent/guardian will be documented in the athlete's electronic medical record as soon as possible.

IX. *NFHS Ruling*

The National Federation of High Schools (NFHS) Rule states: "Any athlete who is removed from play because of a concussion should have medical clearance from an appropriate health care professional before being allowed to return to play or practice." A student-athlete who has been removed from participation due to a suspected concussion will be evaluated by the Certified Athletic Trainer to determine if the student-athlete sustained a concussion. Dependent on the athletic trainer evaluation the student-athlete may be allowed to return to play based on the criteria in this document. If the athletic trainer is not present, the student-athlete will not be allowed to return to play until evaluated by proper medical personnel and all documentation is present that allows the

athlete to return to play. All return to play guidelines in this document will be followed either by the assigned coach or athletic trainer to determine the participation status of the student-athlete in question.

Traumatic Brain Injuries Update 04-2018

TUCSON UNIFIED
SCHOOL DISTRICT

School Health Services

Return to Learn Accommodations

Dear Health Provider,

Date: _____

_____ sustained a head injury and needs further evaluation for a potential concussion. Please use the zones on the form to indicate the student's level of injury and level of activity upon return to school, as this will help ensure compliance with TUSD Return to Learn Protocol.

Health provider follow up is required at least every four weeks to continue accommodations.

TUSD Staff Name: _____ School: _____ Phone: _____

Concussion Guidelines

RED ZONE

Student needs total cognitive rest. Should not be in school or doing academic work.

ORANGE ZONE

ALL (or check each specific indication)

- Attendance may be inconsistent based on level of symptoms and time of day.
- Prioritize and excuse assignments based on most essential goals and objective of the course. Communicate this to parents, student, and other involved support staff.
- If student is symptomatic, send him or her to the nurse.
- Expect limited class participation (more listening than speaking)
- Avoid tests, quizzes, and computer or screen-based assignments
- May need audio books or oral exams
- Be prepared to help student accommodate light and noise sensitivity
- REMEMBER: Student may not be able to self-advocate

YELLOW ZONE

ALL (or check each specific indication)

- Excuse past assignments and units as possible.
- Student should only take one test or quiz a day
- Anticipate occasional absences
- Set a schedule for the completion of any work that cannot be excused
- Student may still require accommodations such as audio books, extended time on test or large assignments, and limited screen-based assignments

GREEN ZONE

ALL (or check each specific indication)

- For new work, academic expectations can be back to usual
- Student will be working to complete accommodated work load (according to agreed upon modifications) for all classes.
- REMEMBER: most students can not make up every assignment they missed

BLUE ZONE

Back to usual academic expectations

Date of follow-up appointment: _____

Name and Phone number of Provider: _____

Signature of Provider _____ Date _____

Appendix B

**Tucson Unified School District
Traumatic Brain Injury/Concussion
School Support Plan**

Patient Name: _____	Date of Injury: _____
CMT Lead: _____	Date of Evaluation: _____

_____ has been evaluated/diagnosed with a concussion. The following plan is based on his/her current condition and is designed to help speed recovery and improve school functioning. We are seeking your assistance and participation in post-concussion care. Please provide this information to all teachers and other relevant school staff (e.g., school nurse, counselor, coach, and athletic trainer) who interact with this student.

What is a concussion?

A concussion (also known as a mild traumatic brain injury or mild TBI) is an injury to the brain that disrupts how the brain normally works. Most young people recover completely from a concussion in a matter of days to weeks, although some students take longer to recover than others. Concussions can lead to a number of physical, cognitive, and behavioral/emotional symptoms, any of which can change how a student functions at school. These difficulties can occur with any level of concussion, regardless of whether or not there was a loss of consciousness.

If any of the following problems are seen, the parents/guardians should be notified immediately for referral to a physician/ER:

- Headache that is severe or suddenly worsens
- Confusion, significant sleepiness, or trouble arousing
- Repeated vomiting
- Weakness or numbness in the arms or legs
- Trouble walking or talking
- Seizure or convulsion
- Sudden change in thinking or behavior

During today's evaluation, the following symptoms were reported:	
<u>Physical</u>	<u>Memory/Attention Deficits</u>
<input type="checkbox"/> Fatigue	<input type="checkbox"/> Difficulty with sustained attention
<input type="checkbox"/> Headaches	<input type="checkbox"/> Fails to give close attention to detail
<input type="checkbox"/> Sensitivity to lights	<input type="checkbox"/> Makes careless mistakes
<input type="checkbox"/> Sensitivity to sounds	<input type="checkbox"/> Does not seem to listen
<input type="checkbox"/> Dizziness or balance problems	<input type="checkbox"/> Difficulty organizing tasks
<input type="checkbox"/> Blurry or double vision	<input type="checkbox"/> Forgetful or easily distracted
<input type="checkbox"/> Difficulty sleeping	<input type="checkbox"/> Often loses things
<input type="checkbox"/> Nausea	<u>Cognitive</u>
<input type="checkbox"/> Pain in neck and/or shoulders	<input type="checkbox"/> Trouble remembering
<u>Behavioral/Emotional</u>	<input type="checkbox"/> Trouble paying attention
<input type="checkbox"/> Increased irritability	<input type="checkbox"/> Fogginess or hard time thinking
<input type="checkbox"/> Sadness	<input type="checkbox"/> Slowed processing speed
Today's examination suggests the following school supports and activity restrictions are indicated:	
School Attendance	
<input type="checkbox"/> No return to school at this time. Return to school on _____.	

<input type="checkbox"/> Shortened school day. Recommend _____ hours/periods until _____, when the transition back to full time attendance should occur gradually.
General Academic Supports
<input type="checkbox"/> Regular check-ins with teachers and/or counselor to ensure individualized support.
<input type="checkbox"/> Require use of day planner to organize work. Require daily teacher/student record of assignments in planner.
<input type="checkbox"/> Preferential seating to allow for teacher monitoring and few distractions.
<input type="checkbox"/> No standardized or classroom tests.
<input type="checkbox"/> Tests should be taken in a distraction-free environment.
<input type="checkbox"/> Postpone or stagger tests. Provide shortened tests or extended time to take tests.
<input type="checkbox"/> Reduction in homework load to _____%.
<input type="checkbox"/> Waive non-critical homework assignments and tests missed since the injury.
<input type="checkbox"/> Flexibility with assignment due dates and scheduling tests: 2-3 days as agreed upon by teacher(s)/counselors.
<input type="checkbox"/> Written and/or verbal directions.
<input type="checkbox"/> Break down of complex directions into steps.
<input type="checkbox"/> Provide preprinted copy of class notes
<input type="checkbox"/> Allow audio recording of lecture to be taken
<input type="checkbox"/> If school resources are available, allow for a temporary peer tutor or student service learner to assist in organizing assignments and planning work.
<input type="checkbox"/> Color coded materials or study guide.
<input type="checkbox"/> Reduce screen time including computers, smart boards, and projectors/TV's
<input type="checkbox"/> Rest time in nurse's office or other appropriate location when necessary (e.g., for fatigue, headaches).
<input type="checkbox"/> Allow time to see the counselor, nurse or school psychologist if needed.
<input type="checkbox"/> Reduce weight of backpack by allowing a copy of the textbook to be at home and in the classroom.
<input type="checkbox"/> Permit use of sunglasses or a cap with a visor indoors.
<input type="checkbox"/> Permit use of ear protection. (NOT music)
<input type="checkbox"/> Provide a quiet place for lunch.
<p>TUSD's Concussion Management Team is working with the family and other healthcare/athletic personnel around how best to return them to sports and other physical activities. At this time, we recommend:</p> <input type="checkbox"/> Allowance to leave class _____ minutes early with a responsible peer to avoid being jostled or bumped in the hallway or on the stairs. Elevator access as available.
<input type="checkbox"/> No PE class or sports practices/games.
<input type="checkbox"/> Return to PE class per doctors release and sports practices/games as per the districts Return to Play Protocol for high school or doctors release for middle school, but no participation in contact or collision activities.
<input type="checkbox"/> Return to PE class and sports practices/games with no restrictions.

Accommodations are in effect for _____ weeks until follow up with physician.

Review of their progress with the school's Concussion Management Team and ongoing needs should occur frequently, due to the expected rapid recovery seen after most concussions. If school problems persist beyond 3-6 weeks after the initial concussion, they will be referred for further evaluation. Please feel free to contact any member of the Concussion Management Team or Team Leader directly if you have any questions or if we can assist further. With the family's permission, we are happy to provide any additional information that might be helpful for school planning.

Physician/Concussion Management Team Leader

Parent

Student

Date

Appendix C

Concussion Guidelines for Teachers

RED ZONE

- Student needs total cognitive rest. Should not be in school or doing academic work.

ORANGE ZONE

- Attendance may be inconsistent based on level of symptoms and time of day
- Prioritize and excuse assignments based on most essential goals and objectives of the course. Communicate this to parents, student, and other involved support staff.
- If student is symptomatic, send him or her to the nurse.
- Expect limited class participation (more listening than speaking)
- Avoid tests, quizzes, and computer or screen-based assignments
- May need audio books or oral exams
- Be prepared to help student accommodate light and noise sensitivity
- REMEMBER: Student may not be able to self-advocate

YELLOW ZONE

- Excuse past assignments and units as possible.
- Student should only take one test or quiz a day
- Anticipate occasional absences
- Set a schedule for the completion of any work that cannot be excused
- Student may still require accommodations such as audio books, extended time on tests or large assignments, and limited screen-based assignments

GREEN ZONE

- For new work, academic expectations can be back to usual
- Student will be working to complete accommodated work load (according to agreed upon modifications) for all classes.
- REMEMBER: most students can not make up every assignment they missed

BLUE ZONE

- Back to usual academic expectations

School Health Services

Appendix D

Head Injury Standard

Purpose: To assist health office personnel with the identification and care of potential head injuries.

Overview: Head injuries can be minor resulting in a bump, bruise or bleeding; or a head injury can be serious and require emergent care.

Goal: Health Staff will follow health services guidelines to provide care that is appropriate to the level of injury.

- Standardized Procedure: Tools & Forms:
 - Head Injury Algorithm
 - Nurses: CDC Concussion Signs and Symptoms Checklist - If applicable
 - Nurses: School Nurse Temporary Concussion Accommodations – If applicable
 - Health Assistants: Guidelines for Potential Concussion Worksheet
 - Health Staff: Head Injury Notification Letter sent home for all head injures
 - Health Staff: Return to Learn Accommodation will be sent home with parent for health care provider

Definition of a Head Injury: A head injury is any trauma to the scalp, skull, or brain. The injury may be only a minor bump on the skull or a serious brain injury. (NIH, US National Library of Medicine, <https://www.nlm.nih.gov/medlineplus/ency/article/000028.htm>)

Definition of a Concussion: The temporary loss of normal brain function due to an injury. “A complex pathophysiological process affecting the brain, induced by traumatic biomechanical forces” and includes five major features:

1. Concussion may be caused either by a direct blow to the head, face, or neck or 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 neuropathological 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 (LOC). Resolution of the clinical and cognitive symptoms typically follows a sequential course; however, it is important to note that in a small percentage of cases, post concussive symptoms may be prolonged
5. No abnormality on standard structural neuroimaging studies is seen in concussion⁽¹⁴⁾
(Wisconsin School Health Services Project, Concussion Management Fall 2014)

Process:

If a head injury occurs on the school campus, the student will be attended to by the health assistant or nurse using the standardized tools/forms above. The health assistant will notify the nurse/ triage nurse as outlined in the Head Injury Algorithm procedure.

If the injury occurs after school during an athletic event, the coach and/or athletic trainer, or other administratively appointed person will be responsible.

Documentation:

All head injuries will be documented as a health office encounter and a Head Injury Notification Letter will be sent home for students with a head injury. A student accident report may also be required. See Guidelines.

Annually, within the first 30 days of school or employment, all health staff will complete the CDC /Heads Up to Youth Sports online training and submit the completion certificate to health services. TrueNorthLogic Course #13748 Health Assistants, #13749 Nurses.

Appendix E

**Tucson Unified School District
Recovery Plan for Student's Academic Success**

Between

Name of the student

And

Names of the family, teachers, coaches, athletic trainer, friends.

Recovering from a head injury involves a Concussion Management Team to support the student that includes minimally the student, their parent/guardian and a school representative. School personnel may include one or more of the following professionals: counselor, nurse, teachers, school psychologist, administrator, physician or athletic trainer. As personnel vary by school, the members of the CMT will also be different at each site. The CMT may also include other individuals significant to the student's recovery as determined by the student and parent/guardian, friends, therapist, etc. The goal of the injured student is to heal completely. The goal of the team is to empower the student to follow the plan to allow for a complete recovery from their injury.

Date _____

I _____ agree to:
Student's name

1. Follow the plan outlined by the Concussion Management Team.
2. To ask clarifying questions when necessary.
3. Not to abuse the academic accommodations set forth by the Concussion Management Team.
4. Always know which color recovery stage I am in. Presently I am in _____.
Color stage
5. Communicate with my family, friends, teachers and Concussion Management Team.
6. Other: _____

WE (each team member signatures) AGREE TO SUPPORT THESE ACTIONS:

TUSD Student Self Assessment for Traumatic Brain Injuries/Concussions

Name: _____	Date of Injury: _____	
	Previous Concussions: 1 2 3 4 5 Other: _____	
Date of completion: _____	Time of completion: _____	

The purpose of this form is to allow TUSD to monitor the athlete's reported signs and symptoms related to the current injury and to provide appropriate care. The SSA will be utilized for the initial evaluation and for each subsequent follow-up assessment until all signs and symptoms have cleared at rest and during physical exertion.

The athlete will grade each symptom on a 0-6 scale where 0 = not present and 6 = most severe.

Symptom	0	1	2	3	4	5	6
Headache							
Nausea							
Vomiting							
Fatigue							
Visual Problems							
Balance Problems							
Sensitivity to light							
Sensitivity to noise							
Numbness/Tingling							
Dizziness							
Excess sleep							
Sleep disturbance							
Drowsiness							
Trouble falling asleep							
Problems remembering							
Feel "in a fog"							
Feel "slowed down"							
Problems concentrating							
Inappropriate emotions							
Sadness							
Irritability							
Nervousness							
Other							
Total							
Total symptoms reported							
Total Score							

Brief description of injury: _____

Student Athlete Signature _____	Parent Signature _____	Date _____
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If the student athlete is taken to a doctor or medical facility please take this sheet for reference and have the physician review the information. Remember that all doctor visits require a physician release prior to returning to practice or play.

Athletic trainer notes: _____

Appendix G

**Tucson Unified School District
TUSD Traumatic Brain Injury/Concussion Home Care Sheet**

Special recommendations: _____

Concussion Home Care Instructions

I believe that _____ sustained a concussion on _____ . To make sure he/she recovers, please follow the following important recommendations:

1. Please **remind** _____ to report to the athletic training room tomorrow at _____ for a follow-up evaluation.

2. Please **review** the signs and symptoms that were discussed by the certified athletic trainer or coach. Remember- you know your child- if anything abnormal occurs or if any of these signs and symptoms develop prior to his/her visit, please call _____ at _____ or contact 911.

Otherwise, you can follow the instructions outlined below.

3. Additional information on concussion may be found on the TUSD website:

<http://www.tusd1.org/contents/depart/interscholastics/training.asp>

It is OK to	There is NO need to	DO NOT
Return to school	Stay in bed	Take aspirin
Use Tylenol (acetaminophen) for headaches	Check eyes with flashlight	Take Advil, (ibuprofen) until after you have checked with your doctor/physician
Use ice pack on head neck as needed for comfort	Wake up every hour	Do not drink alcohol
Go to sleep	Test reflexes	Eat or drink, spicy foods or drinks
Eat a light diet		Use electronic devices, texting, TV
Rest- no strenuous activity or sports		

Please feel free to contact me if you have any questions.

I can be reached at: _____

Athletic Trainer/Coach: _____

Signature: _____

Date: _____