



SPRING BRANCH ISD

2023-2024

CONCUSSION MANAGEMENT PROTOCOL HANDBOOK

IN COORDINATION WITH H.B. 2038

NOTE: Revisions to the guidelines recommended in this Concussion Management Protocol will be made annually based upon current legislation and further understanding and interpretation of H.B. 2038. It is important that persons using this protocol be aware of such revisions. (Revised Spring, 2023)





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CONCUSSION OVERSIGHT TEAM (COT)

Medical Advisors

P. Tim Sprockel, MD
Houston Methodist West Hospital
18400 Katy Freeway, STE. 200
Houston, TX 77094
832-522-2663

D. Michael Chachere II, MD
Neurology Consultants of Houston
6700 West Loop S # 400
Houston, TX 77041
713-795-4785

Russell Thomas, PA-C
UT Orthopedics and Sports Medicine
10125 Katy Freeway, Suite 100
Houston, TX 77024
713-486-1700

Connie Hamon, RN
Supervisor, SBISD Health Services
955 Campbell Rd,
Houston, TX 77024
713-251-2319

High School Representatives

Memorial High School
935 Echo Lane
Houston, TX 77024
713-251-2738 or 713-251-2735

Spring Woods High School
2045 Gessner
Houston, TX 77080
713-251-3302

Rochelle.Abrams@springbranchisd.com
Daniel.Lavoy@springbranchisd.com
Esohe.Omoruyi@springbranchisd.com

Tyra.Harrell@springbranchisd.com
Sarah.Sturm@springbranchisd.com
Stephanie.Cabrera@springbranchisd.com

Northbrook High School
#1 Raider Circle
Houston, TX 77080
713-251-2940 or 713-251-2904

Stratford High School
14555 Fern Dr.
Houston, TX 77079
713-251-3460 or 713-251-3461

Johnny.Gomez@springbranchisd.com
Jordan.Bishop@springbranchisd.com

Marianne.Landon@springbranchisd.com
Elana.Frank@springbranchisd.com
Angela.Perez@springbranchisd.com

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TEXAS H.B. 2038

"NATASHA'S LAW"

SUMMARY – TEXAS H.B. 2038 “NATASHA’S LAW”

- A. The bill mandates a Concussion Oversight Team (COT) be chosen by each school district or charter school, headed by at least one physician with concussion management training.
- B. The bill defines the licensed healthcare professionals who will participate in the development and implementation of the Concussion Oversight Team (COT) in schools.
 - ▶ Physician
 - ↳ Medical Doctor (M.D.)
 - ↳ Doctor of Osteopathy (D.O.)
 - ▶ Athletic Trainer
 - ▶ Neuropsychologist
 - ▶ Advanced Practice Nurse
 - ↳ Nurse Practitioner (NP)
 - ↳ Nurse Anesthetist (CRNA)
 - ↳ Clinical Nurse Specialist (CNS)
 - ↳ Nurse Midwife (CNM)
 - ▶ Physician Assistant (P.A.-C.)
- C. The student and the student's parent or guardian or another person with legal authority to make medical decisions for the student must have signed a form for that school year that acknowledges receiving and reading written information that explains concussion prevention, symptoms, treatment and oversight, and that includes guidelines for safely resuming participation in an athletic activity following a concussion. The form must be approved by the University Interscholastic League (UIL).
 - ▶ UIL Concussion Acknowledgement Form – Supplement A1
- D. The bill requires students who are suspected of having sustained a concussion to be removed from the activity immediately. Those authorized to remove a student are:
 - ▶ Coach
 - ▶ Physician
 - ▶ Licensed Healthcare Professional
(Athletic Trainer, Advanced Practice Nurse, Neuropsychologist, or Physician Assistant)
 - ▶ Student’s parent or guardian or another person with legal authority to make medical decisions for the student
- E. The student suspected of sustaining a concussion must be evaluated by a physician of his/her other choosing.
- F. The school district must verify the student has successfully completed each requirement of the Return-to-Play protocol necessary for the student to return to play, as established by the Concussion Oversight Team.
- G. The treating physician must provide a written statement indicating that, in his/her professional judgment, it is safe for the student to return to play.
- H. The student and the student's parent or guardian or another person with legal authority to make medical decisions for the student acknowledges in writing:
 - ▶ They have been informed concerning and consent to the student’s participation in returning to play in accordance with the Return-to-Play protocol;
 - ▶ They understand the risks associated with the student returning to play and will comply with any ongoing requirements in the Return-to-Play protocol;
 - ▶ They consent 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 regarding the return to play recommendations of the treating physician; and
 - ▶ They understand the immunity provisions included in H.B. 2038.

- I. If the school district or charter school employs an athletic trainer, he or she is responsible for the athlete's compliance with the Return-to-Play protocol.
- J. A coach of an interscholastic athletics team may not authorize a student's return to play.
- K. The school district superintendent or the superintendent's designee or, in the case of a home-rule school district or open-enrollment charter school, the person who serves the function of superintendent or that person's designee shall supervise an athletic trainer or other person responsible for compliance with the Return-to-Play protocol. The person who has supervisory responsibilities may not be a coach of an interscholastic athletics team.
- L. The bill establishes an education course for coaches. It also establishes two hours of continuing education requirements in concussion management including evaluation, prevention, symptoms, risks, and long-term effects for athletic trainers and other licensed healthcare professionals on the Concussion Oversight Team, to be taken once every two years. It is recommended that physicians serving on the Concussion Oversight Team take continuing education in concussion management.
- M. The bill provides for immunity from liability for school districts or members of the Concussion Oversight Team complying with this act.
- N. The bill allows the Commissioner of Education to develop rules as necessary to implement the bill.
- O. There should be no fiscal impact in the next biennium attached to the implementation of the bill.

LEGAL DISCLAIMER: The purpose of this summary is to inform its readers of relevant information pertaining to recent state legislation. It is not intended nor should it be used as a substitute for legal interpretation, advice or opinion which can be rendered only by your legal counsel as the legislation relates to specific fact situations.



SPRING BRANCH ISD CONCUSSION MANAGEMENT PROTOCOL

SPRING BRANCH ISD CONCUSSION MANAGEMENT PROTOCOL

The Spring Branch ISD Concussion Oversight Team (COT), with assistance from Memorial Hermann Sports Medicine and the Ironman Sports Medicine Institute Concussion Program at Memorial Hermann has developed and implemented the following concussion management guidelines for the student-athletes in Spring Branch ISD. These comprehensive guidelines are consistent with current standards of care and appropriate medical practices for the UIL student-athlete who suffers a concussion in sports. Developed and implemented by the COT recognized below, the following guidelines are designed to facilitate a safe return to athletic activities for the student-athletes of Spring Branch ISD*. The COT is committed to utilizing current standards and methods in its multidisciplinary approach to concussion management which may include, but not limited to, pre- and post-injury neurocognitive testing (if deemed appropriate), SCAT (Sport Concussion Assessment Tool) symptom assessment tool, graded symptom checklist and a progressive Return-to-Play (RTP) protocol.

SPRING BRANCH ISD CONCUSSION OVERSIGHT TEAM (COT)

Physicians	P. Tim Sprockel, MD D. Michael Chachere II, MD Russell Thomas, PA-C
Heath Services Supervisor	Connie Harmon, RN
Athletic Trainers	Rochelle Abrams, MSS, LAT, ATC Daniel LaVoy, LAT, ATC Kizzy Omoruyi, MBA, LAT, ATC Johnny Gomez, LAT, ATC, LMT Jordan Bishop, MS, LAT, ATC Tyra Harrell, LAT Sarah Sturm, MS, LAT, ATC Stephanie Cabrera, MAT, LAT, ATC Marianne Landon, MAT, LAT, ATC Elana Frank, MAT, LAT, ATC Angela Perez, MAT, LAT, ATC Todd Walstead, LAT, ATC

*In Spring Branch ISD, the UIL sports include baseball, basketball, cross country, football, golf, soccer, softball, swimming & diving, tennis, track & field, volleyball and water polo. Students participating in cheerleading must comply with Chapter 38, subchapter D, of the Texas Education Code related to the prevention, treatment and oversight of concussions.

Introduction

The Centers for Disease Control and Prevention (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 Spring Branch ISD athletes, the following guidelines are intended to serve as a written protocol for concussion management.

Spring Branch ISD is coordinated with H.B. 2038. Any student-athlete removed from a workout, practice or competition due to the recognition of concussion-related signs and symptoms will not be allowed to return to any participation for the remainder of that day. If the student-athlete is deemed to have a concussion, he or she must be cleared to resume participation by one of the following licensed healthcare professionals:

- Medical Doctor (M.D.)
- Doctor of Osteopathy (D.O.)
- Advanced Practice Nurse (NP, CNRA, CNS, CNM)
- Physician Assistant (P.A.-C.)

The athlete must provide written statement from the treating physician indicating that, in the physician's professional judgment, it is safe for the athlete to return to play. The athlete's parent or guardian and the athlete must then sign and return to the school district designee the UIL Concussion Management Protocol Return-to-Play Form (Supplement C3) indicating the following: They have been informed and consent to the policies established under the RTP protocol; they understand the risks associated with the student-athlete's returning to play; they agree to comply with any requirements outlined by the concussion policy; they consent to the physician's disclosure of health information that was related to the concussion and treatments; and they understand the district's and school's immunity from liability.

Prevention Strategies

While we cannot prevent all concussions, advancing the knowledge of athletes and those involved in the health and welfare of the athletes may prove helpful to avoid recovery complications and minimize catastrophic outcomes should a head injury occur. Prevention starts with education. Spring Branch ISD will strive to keep the safety and well-being of all of our student-athletes in the forefront. Education should be a constant effort that is always stressed by our Athletic Trainers and coaching staffs. However, yearly educational sessions in each sports pre-season will allow the Athletic Trainers and coaches to educate their student-athletes on proper playing techniques that will reduce the likelihood of concussion occurrence (i.e., proper tackling form in football, proper heading of the soccer ball, how to fall in basketball, etc.).

It is Spring Branch ISDs intention to provide our student-athletes with the necessary equipment for concussion prevention, ranging from football and baseball helmets to mouthpieces. Although no scientific studies have shown that either helmets or mouthpieces will prevent concussion, they both help in the prevention of more serious injuries (e.g., skull fractures, intracranial hematomas, dental fractures and convulsions) and *may* reduce the severity of concussions.

A. Protective Equipment

1. All protective equipment including headgear must be certified by the National Operating Committee on Standards for Athletic Equipment (NOCSAE).
2. Make sure that athletes wear the appropriate helmets/headgear, face guards, mouth guards, etc., for their respective sport. Mouth guards should fit and be used at all times.
3. All protective equipment must be fitted and worn properly and inspected on a regular basis throughout the season.
4. For all sports that require headgear, a coach or appropriate designee should check headgear before use to make sure air bladders work properly and are appropriately filled. Padding should also be checked to make sure it is in proper working condition and fitted appropriately for the best protection possible.
5. Make sure helmets are secured properly at all times. Helmets should be snug and comfortably fit, and should not wobble, tilt, or rotate when twisted.

B. Strength Training

Athletes must perform regular proper neck, shoulder, and upper back strengthening exercises for those in contact and collision sports. Proper technique and supervision are always required with any lifts in the weight room.

C. Rules of Play

1. All coaches and athletes must adhere to and follow the rules of play for their respective sport.
2. Teach, practice and enforce safe play and proper techniques at all times.

D. Fields and Play Surfaces

Make sure all fields, indoor and outdoor courts, as well as pools are safe including proper sport-related field equipment (i.e., field goal posts in football, goal posts in soccer, field practice equipment in baseball/softball, etc.).

Concussion/MTBI Management Timeline

1. All required paperwork is completed and signed by athlete and athlete's parent or guardian or another person with legal authority to make medical decisions for the student.
 - a. UIL Pre-participation Physical Evaluation
 - b. UIL Illegal Steroid Use Parent and Student Notification/Agreement Form
 - c. UIL Acknowledgment of Rules Form
 - d. UIL Concussion Acknowledgment Form – Supplement A1
 - e. All additional Spring Branch ISD required forms
-
2. On-Field Sideline Evaluation
 - If the athlete has any observable signs or reports any symptoms of a concussion, it must be assumed that a concussion has occurred and further medical attention and evaluation will be done.
 - a) If the athlete is unable to get up on his or her own after a hit, collision, or fall, it should be assumed that a loss of consciousness has occurred and the athlete may have sustained a cervical spine injury. The athlete should be stabilized and transported immediately to hospital emergency department via ambulance.
 - b) If the athlete is conscious and able to be assisted to the sideline, the Athletic Trainer or physician will administer the SBISD Sideline Management Evaluation Assessment - Appendix A1. This sideline management evaluation is based on other tools such as SCAT, etc.
 - c) If the athlete appears dazed or confused, moves clumsily, has difficulty getting up or has balance issues after a hit, collision, or fall, the athlete will be removed from play and further sideline evaluation will be done.
 - Continue and monitor athlete for approximately 15-20 minutes, reassessing every 5 minutes for any signs of deterioration (i.e., worsening headache, seizures or convulsions, focal neurological deficits, altered state of consciousness, repeated vomiting, slurred speech, or increasing confusion or irritability). If the athlete demonstrates any signs of deterioration, he or she will be transported immediately to hospital emergency department via ambulance.
 - **The athlete will be removed from play and will not return to practice or game play on the same day they were injured regardless of how long the concussive symptoms are present or whether or not the symptoms improve or clear completely. At this point the athlete must see a physician (see #3).**
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Concussion/MTBI Management Timeline (Continued)

3. Provide referral to a physician or other appropriate health care professional.
 - The athlete must be seen by a physician and cleared to begin the Return-to-Play protocol.
 - Head Injury Referral Form – Supplement B1
 4. Provide home instructions for Parent /Guardian.
 - This information is to educate the parent or guardian of the signs and symptoms of a concussion as well as those to monitor for any deterioration. If any signs of deterioration occurs once the athlete leaves the school, the parent or guardian is informed of the proper protocol to follow.
 - Spring Branch ISD Home Instructions for Head Injury – Supplement B2
 5. SBISD Post-Concussion Symptom Check – Supplement C1
-

6. The athlete must provide a written statement from his or her treating physician indicating that, in the physician's professional judgment, it is safe for the athlete to return to play. The completed and signed "Head Injury Referral Form (Supplement B1)" must be on file with the Athletic Trainer prior to any Return-to-Play protocol can be initiated. A parent note for an injury in such a circumstance will not be accepted as a release to return to the activity, even if the parent is a licensed healthcare professional.

It is recommended that athletes evaluated for a concussion in a hospital emergency room or urgent care clinic not be allowed to begin the Return-to-Play protocol until they have been evaluated by a physician specially trained in concussion management or their primary care physician.

7. **STEPWISE RETURN-TO-PLAY PROTOCOL:** With the written physician's statement on file, the athlete progresses through the stepwise Return-to-Play protocol. *The athlete cannot advance more than ONE step progression per day.* If the progression occurs over a weekend, the athlete is not to progress more than one step until the next school day. This allows the supervisor to evaluate any symptoms which may occur after activity during the recovery period and authorize continued progression.
 - Return-to-Play Protocol Following Concussion – Supplement A2
 - In the absence of competition, off-season athletes must complete an additional Phase 4b in lieu of Phase 5 to fulfill RTP requirements
 8. Provide Return-to-Play Guidelines for Parents: Once the athlete has successfully progressed through each step of the Return-to-Play protocol and continues to stay asymptomatic throughout the recovery period, the Licensed Athletic Trainer and the parents complete the UIL Concussion Management Protocol Return-to-Play Form.
 - UIL Concussion Management Protocol Return-to-Play Form – Supplement C3
-

9. Verify that all required paperwork with proper signatures of the athlete, parent/guardian, and the Licensed Athletic Trainer or superintendents' designee are on file prior to the athlete returning to full unrestricted sports participation.

Post-Concussion Management at School

1. Notify school personnel that the student-athlete suffered a concussion/MTBI while participating in a school sponsored athletic event. This should be done the next school day following the injury.
 - a. Assistant Principal
 - b. Counselor
 - c. Student Support Committee/Campus Intervention Coordinator*
 - d. Section 504 Campus Coordinator*
 - e. Special Education Campus Coordinator (*If the student is currently receiving Special Education Services.*)
 - f. School nurse
 2. **Note:** *If a student's concussion will affect him or her for a period of time that will likely disrupt their education, then the student's temporary disability would need to be covered by Section 504 for the duration of the disability.*
 2. Provide school personnel listed above with an educational handout outlining the observable signs and reported symptoms of concussion. It will also be helpful to distribute this handout to the student-athlete's teachers.
 - Concussion Fact Sheet – Supplement F
 3. Academic Accommodations
 - a. Some individuals may be able to attend school without increasing their post-concussion symptoms. However, most students will require one or more academic accommodations, depending on the nature of their injury and post-concussion symptoms, to allow for the best recovery potential.
 - b. The treating physician, neurologist, or neuropsychologist may recommend that the student be given special academic accommodations, (i.e., postponement or reducing exams/quizzes, reducing workload, provide pre-printed class notes, additional time to complete assignments, assistance to class, limited computer work, reading activities, etc.), until symptoms subside to allow for full recovery potential.
 - Post-Concussion Cognitive Recommendations/Accommodations – Supplement G1/G2/G3
- Academic accommodations should only be made under the direct recommendation of the athlete's treating physician, neurologist, or neuropsychologist. For liability purposes the Licensed Athletic Trainer should not make these direct accommodations but may only recommend to the Student Support Committee/Campus Intervention Coordinator, Section 504 Coordinator, or Special Education Diagnostician/Campus IEP Specialist recommend them to the counselor specializing in academic accommodations in conjunction with the athlete's treating physician, neurologist, or neuropsychologist.*
- c. Along with classroom academic accommodations the student may only be able to attend school for half-days or may need daily rest periods until symptoms subside. The treating physician, neurologist, or neuropsychologist will provide the necessary documentation for the school district.
 - d. Once the athlete successfully completes the stepwise Return-to-Play protocol, concussion related academic accommodations will end. The Section 504 or ARD (Special Education) Committees must discontinue the accommodations. If a student has a temporary disability under Section 504 and no longer meets eligibility under Section 504 as a student with a disability, the student may be considered for dismissal from Section 504 services.

Recovery and Safe Return-to-Play

In addition to requiring a specific stepwise Return-to-Play protocol, H.B. 2038 requires that the student-athlete and his/her parent or guardian or another person with legal authority to make medical decisions for the student-athlete are educated in the risks associated with returning to play following a concussion.

It is crucial to allow enough healing and recovery time following a concussion/MTBI to prevent further damage. Research has shown that damage from repeated concussions is cumulative. Most athletes who experience an initial concussion/MTBI can recover completely as long as they do not return to play too soon. Following a concussion/MTBI, there is a period of change in the function of the brain that can last from 24 hours to days, weeks, or even months. During this time, the brain is susceptible to more severe and/or permanent injury.

Second Impact Syndrome refers to a catastrophic series of 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 not as severe as the first; however, more likely to cause brain swelling with other widespread damage to the brain which can be fatal. Most often, second impact syndrome occurs when an athlete returns to activity without being symptom-free from the previous concussion.

Return-to-Play Guidelines

1. The treating physician must provide a written statement indicating that, in the physician's professional judgment, it is safe for the student to return to play. This written statement must be on file prior to any Return-to-Play protocol can be initiated. A parent note for an injury in such a circumstance will not be accepted as a release to return to the activity, even if the parent is a licensed healthcare professional.
 - Head Injury Referral Form – Supplement B1
2. Parent information is provided and the UIL Concussion Management Return-to-Play Form must be signed by all necessary parties and on file.
 - Spring Branch ISD Home Instructions for Head Injury – Supplement B2
 - Guide for Referral to Physician – Supplement E
 - UIL Concussion Management Protocol Return-to-Play Form – Supplement C3
 - Spring Branch ISD Authorization for the Release of Medical Information – Supplement C4
3. Activity progression is to be monitored by a Licensed Athletic Trainer (LAT). If a LAT is not available, the athlete may have the RTP progression monitored by the superintendent's designee (this can be a coach employed by the district or school). Per H.B. 2038, a coach is not permitted to clear an athlete for full sports participation following a concussion/MTBI.
 - Return-to-Play Protocol Following Concussion – Supplement A2
4. Written clearance from the athletic trainer or school nurse is required for full, unrestricted participation.
 - Stepwise Return-to-Play Documentation Checklist - Supplemental C2
5. Middle school athletes will complete the RTP protocol under the guidance of the athletic trainer(s) of the high school that they feed into. If no athletic trainer is available, the school nurse or superintendent's designee will oversee the RTP protocol.



**SPRING BRANCH ISD
CONCUSSION RETURN-TO-PLAY
FORMS**



CONCUSSION ACKNOWLEDGEMENT FORM

Name of Student _____

Definition of Concussion - means a complex pathophysiological process affecting the brain caused by a traumatic physical force or impact to the head or body, which may: (A) include temporary or prolonged altered brain function resulting in physical, cognitive, or emotional symptoms or altered sleep patterns; and (B) involve loss of consciousness.

Prevention – Teach and practice safe play & proper technique.

- Follow the rules of play.
- Make sure the required protective equipment is worn for all practices and games.
- Protective equipment must fit properly and be inspected on a regular basis.

Signs and Symptoms of Concussion – The signs and symptoms of concussion may include but are not limited to: Headache, appears to be dazed or stunned, tinnitus (ringing in the ears), fatigue, slurred speech, nausea or vomiting, dizziness, loss of balance, blurry vision, sensitive to light or noise, feel foggy or groggy, memory loss, or confusion.

Oversight - Each district shall appoint and approve a Concussion Oversight Team (COT). The COT shall include at least one physician and an athletic trainer if one is employed by the school district. Other members may include: Advanced Practice Nurse, neuropsychologist or a physician's assistant. The COT is charged with developing the Return to Play protocol based on peer reviewed scientific evidence.

Treatment of Concussion - The student-athlete/cheerleader shall be removed from practice or participation immediately if suspected to have sustained a concussion. Every student-athlete/cheerleader suspected of sustaining a concussion shall be seen by a physician before they may return to athletic or cheerleading participation. The treatment for concussion is cognitive rest. Students should limit external stimulation such as watching television, playing video games, sending text messages, use of computer, and bright lights. When all signs and symptoms of concussion have cleared and the student has received written clearance from a physician, the student-athlete/cheerleader may begin their district's Return to Play protocol as determined by the Concussion Oversight Team.

Return to Play - According to the Texas Education Code, Section 38.157:

A student removed from an interscholastic athletics practice or competition (including per UIL rule, cheerleading) under Section 38.156 may not be permitted to practice or participate again following the force or impact believed to have caused the concussion until:

(1) the student has been evaluated, using established medical protocols based on peer-reviewed scientific evidence, by a treating physician chosen by the student or the student's parent or guardian or another person with legal authority to make medical decisions for the student;

(2) the student has successfully completed each requirement of the return-to-play protocol established under Section 38.153 necessary for the student to return to play;

(3) the treating physician has provided a written statement indicating that, in the physician's professional judgment, it is safe for the student to return to play; and

(4) the student and the student's parent or guardian or another person with legal authority to make medical decisions for the student:

(A) have acknowledged that the student has completed the requirements of the return-to-play protocol necessary for the student to return to play;

(B) have provided the treating physician's written statement under Subdivision (3) to the person responsible for compliance with the return-to-play protocol under Subsection (c) and the person who has supervisory responsibilities under Subsection (c); and

(C) have signed a consent form indicating that the person signing:

(i) has been informed concerning and consents to the student participating in returning to play in accordance with the return-to-play protocol;

(ii) understands the risks associated with the student returning to play and will comply with any ongoing requirements in the return-to-play protocol;

(iii) 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; and

(iv) understands the immunity provisions under Section 38.159.

Parent or Guardian Signature

Date

Student Signature

Date



RETURN-TO-PLAY PROTOCOL FOLLOWING CONCUSSION

The athlete must meet all the following criteria in order to progress to activity:

- Asymptomatic at rest and with normal activities (including mental exertion in school)
- Demonstrate normal scores on cognitive assessment (e.g., SCAT™) as determined by a neuropsychologist or a physician trained with expertise in concussion management and interpretation of neurocognitive test results.

Once the above criteria are met, the athlete can progress back to full sports participation following a step-wise progression, preferably under the direct supervision of an Athletic Trainer. Progression is individualized and will be determined on a case by case basis. Factors that may affect the rate of progression include: acute markers of injury (e.g., loss of consciousness or amnesia); previous history of head injury/concussion; duration and type of symptoms; age of athlete; and sport or activity in which the athlete participates.

STEP-WISE PROGRESSION: The athlete should be held out of all activities until asymptomatic at rest for at least 24 hours though it is preferred to be asymptomatic for at least a 48 hour period. This asymptomatic period includes mental exertion in school to help reduce the re-emergence of symptoms once initiating the return to play protocol.

PLEASE NOTE: If any concussive symptoms occur while returning to play, the athlete should stop all activity until asymptomatic for another 1-2 days. Once symptoms resolve, resume with the phase in which the athlete was previously asymptomatic (back to previous successful phase).

DO NOT PROGRESS MORE THAN ONE STEP PER DAY THROUGH THIS PROTOCOL. Each step should take a minimum of ONE day (24 hour period) to complete in order to evaluate for any post-concussion symptoms that may occur during aerobic activity or between exertional sessions. Proceed to the next level **ONLY** if asymptomatic at the current level and throughout the recovery period. If the next progression step occurs over a weekend, only advance **ONE** step, not two, to allow for the protocol supervisor to review any post-concussion symptoms that may occur.

STEP	Rehabilitation Stage	Functional Exercise at Each Stage of Rehabilitation	Objective of Each Stage
1.	Light aerobic exercise	Light aerobic activity (10-15 mins) Ex: Stationary bike, walking, etc. NO resistance training.	Increase HR
2.	Moderate aerobic exercise	Moderate aerobic activity (20-30 mins) Ex: Jogging, Elliptical, Stationary Bike, Etc. Light resistance training.	Increase HR, cardiovascular endurance
3.	Sport-specific, non-contact	General, individual sport-specific drills without contact; NO head impact activities; Continue LIGHT resistance training.	Add movement, change of direction
4A.	Sport-specific, light-contact	Progression to more complex, light contact sport-specific Training drills with NO live opponent contact drill, (e.g., Passing drills in football or soccer, sleds in football); Progressive return to head impact activities. Progressive return to normal resistance training.	Exercise, coordination, and cognitive load
4B.	Full contact practice	Progress to participate in normal Training activities but NO games or competition play.	Restore confidence and assess functional skills by coaching staff.
5.	Full sports participation	Return to FULL sports participation. Normal game play As tolerated, monitor symptoms. (Note: In absence of competition, off-season athletes must complete an additional Phase 4b lieu of Phase 5 to fulfill RTP requirements)	



SBISD Return-to-Play Post-Concussion Instructions for Middle School Coaches

1. When a Head Injury Occurs:
 - A. Have the parent complete the *SBISD Home Instructions for Head Injury Form*
 - The coach keeps the white copy.
 - B. Using the *Head Injury Referral Form*:
 - Complete the top part of the form.
 - Call the parent/send the student to the doctor.
 - The physician should complete their part of the form and return it with the student to you.
2. Contact the high school athletic trainer, middle school nurse and the SBISD Athletic Department to notify them of student injury.
 - A. Create a folder, using the *SBISD Concussion Folder Check Sheet*, for the student-athlete so that all materials may be placed in the folder to take to the HS athletic trainer when the student-athlete is ready to be released.
3. Using the ***SBISD Post-Concussion Symptom Checklist***:
 - A. The middle school nurse/campus designee will document the student-athlete's condition daily on the checklist. Multiple checklist forms may be used during the documentation process.
 - B. The student must be symptom-free before they are allowed to engage in physical activity.
 - C. Refer to Phase I of the ***Stepwise Return-to-Play Documentation Checklist*** to begin progression into full activity.
4. Using the ***Stepwise Return-to-Play Documentation Checklist***:
 - A. Go through Phases 1 through 4B.
 - B. Multiple checklist forms may be used during the documentation process.
 - C. If the student-athlete experiences any post-concussion symptoms, they must revert back to the previous phase of activity, after being symptom free for 24 hours.

5. Contact the high school athletic trainer or middle school nurse with any questions or concerns. Notify them of the student's progress within each phase.
6. A meeting with the high school athletic trainer must be set up so that he/she can review all forms, evaluation checklists, and meet with the student-athlete before signing off on the ***UIL Concussion Management Protocol Return-to-Play Form***.
 - A. The parent and athletic trainer must sign off on the ***UIL Concussion Management Protocol Return-to-Play Form*** before a student-athlete may begin competition after a concussion.
 - B. A coach does not have the authority to allow a student-athlete to return to play after a concussion.
7. Once all forms are complete, scan and upload all completed Return-to-Play documents to the SBISD electronic filing system.

Middle School Student-Athlete Head Injury Flow Chart

- School Day
- Evaluated by school nurse
 - Nurse notifies parent/guardian
 - Nurse gives athletic concussion forms to parent or student
 - Nurse notifies campus athletic coordinator (CAC) at the middle school and athletic trainer (AT) at the high school feeder pattern

- After School
- Removed from play by coach for suspected head injury
 - Evaluated by the athletic trainer (AT) (when present).
 - CAC is notified by coach or AT immediately.
 - Coach or AT notifies parent/guardian/emergency contact by phone immediately.
 - Coach or AT gives athletic concussion forms to parent.
 - Coach notifies the district athletic office, school nurse and principal before next school day.

Student sees authorized health care provider (HCP) for concussion evaluation

Nurse follows up with student upon return to school. Head Injury Referral Form returned to the nurse.

- Yes - Concussion Diagnosis
- School nurse immediately notifies CAC, ACAC, AT, Coach and physical education staff
 - School nurse notifies guidance, teachers, and administration of academic accommodations needed
 - Student is symptom-free for 24 hours and reevaluated by designated school health care provider
 - Nurse/campus Designee implement RTP program

No Concussion Diagnosis
School nurse notifies CAC and AT (when present)

Student has no concussion symptoms

Cleared

Student has symptoms of a concussion (reported by student or noted in school by teacher, nurse, AT or staff).

- Not Cleared
- Parent is notified
 - Student unable to play due to signs and symptoms of concussion
 - School immediately notifies CAC, ACAC, Coach and PE staff
 - Begin steps on SBISD Middle School Concussion Folder Checklist

SBISD Middle School Post-Concussion Protocol Checklist

Athlete's Name: _____

Student ID _____

Grade: _____

Sport: _____

- Home Instructions for Head Injury**
 - o Parent completes form
 - o Keep white copy on file
- Head Injury Referral Form**
 - o Complete top of form
 - o Call Parent
 - o Refer to Doctor
 - o Doctor completes form
 - o Head Injury Form returned with student-athlete to Athletic Trainer/M.S. nurse & coach
 - o Start folder for athlete, using the MS Concussion Folder Checklist, to collect all paperwork specific to concussion
- Contact:**
 - o Athletic Trainer
 - o Middle School Nurse
 - o Athletic Department
- Complete:**
 - o **Post-Concussion Symptom Checklist Daily Until Cleared** (Nurse/Campus Designee)
- Stepwise Return-to-Play Documentation Checklist**
 - o Phase 1
 - o Phase 2
 - o Phase 3
 - o Phase 4A
 - o Phase 4B
- Contact: About progress**
 - o Athletic Trainer
 - o Middle School Nurse
 - o Athletic Department
- Send *UIL Concussion Management Protocol Return-to-Play* form home to be signed by parent. (Supplement C3)**
- Meet with High School Athletic Trainer to review folder and sign on appropriate forms and evaluations**
- Stepwise Return-to-Play Protocol**
 - o Phase 5-Return to FULL sports participation
 - o ***Note: In absence of competition, off-season athletes must complete an additional Phase 4b in lieu of Phase 5 to fulfill RTP requirements.*
- Upload all completed Return-to-Play documents to the SBISD electronic filing system**

Completed by: _____

SBISD Middle School Concussion Folder Checklist

Athlete's Name: _____

Student ID: _____

Grade: _____

Sport: _____

- Post-Concussion Check List
- Completed Head Injury Referral Form with Dr. recommendations
- Home Instructions for Head Injury Signed
- Post-Concussion Symptom Check List(s) completed
- Stepwise Return-to-Play Documentation Checklist completed
- UIL Concussion Management Protocol Return-to-Play Form Signed
- All Dr. notes relating to this concussion, including follow up appointments

Completed by: _____

Approved by: _____

HEAD INJURY REFERRAL FORM

ATHLETE INFORMATION

Name: _____ Sport: _____ Date: _____

Condition Occurred: Practice Competition Club Sport Home Other: _____

Mechanism of Injury: _____

Signs observed	Signs reported by athlete	Athlete data
<input type="checkbox"/> Appears to be dazed or stunned	<input type="checkbox"/> Headache	_____ Height (inches)
<input type="checkbox"/> Is confused about assignment	<input type="checkbox"/> Nausea	_____ Weight (pounds)
<input type="checkbox"/> Forgets plays	<input type="checkbox"/> Balance problems or dizziness	_____ Number of previous concussions
<input type="checkbox"/> Is unsure of game, score, or opponent	<input type="checkbox"/> Double or fuzzy vision	_____ Years playing this sport
<input type="checkbox"/> Moves clumsily	<input type="checkbox"/> Sensitivity to light or noise	
<input type="checkbox"/> Answers questions slowly	<input type="checkbox"/> Feeling sluggish	
<input type="checkbox"/> Loses consciousness (even temporarily)	<input type="checkbox"/> Feeling "foggy"	
<input type="checkbox"/> Shows behavior or personality change	<input type="checkbox"/> Change in sleep pattern	
<input type="checkbox"/> Forgets events prior to hit (retrograde amnesia)	<input type="checkbox"/> Concentration or memory problems	
<input type="checkbox"/> Forgets events after hit (anterograde amnesia)		

Other: _____

Observations reported by (name): _____ Title: _____

STEP-WISE RETURN-TO-PLAY PROTOCOL (Athlete will only advance ONE phase per day):

Per UIL rule and HB 2038, athletes must complete the following stepwise process prior to return to play following a concussion:

1. **Removal from contest/practice following any signs/symptoms of concussion**
2. **No return to play in current game/practice**
3. **Medical evaluation following injury**
4. **Stepwise Return to Play**

No activity and rest until symptom free

- a. PHASE 1 - Light aerobic activity (10-15 minutes); no resistance training.
- b. PHASE 2 - Moderate aerobic activity (20-30 minutes); light resistance training.
- c. PHASE 3 - Sport-specific drills, no contact drills; progressive return to normal resistance training.
- d. PHASE 4A - Sport-specific drills, light contact drills; progressive return to normal resistance training.
- e. PHASE 4B - Full-contact drills but NO games or competition play.
- f. PHASE 5 – FULL participation in games or competition play. In absence of competition, off-season athletes must complete an additional Phase 4b in lieu of Phase 5 to fulfill RTP requirements.

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. If any concussive symptoms occur while returning to play, the athlete should stop all activity until asymptomatic for another 1-2 days. Once symptoms resolve, resume with the phases in which the athlete was previously asymptomatic (back to previous successful phase).

ALL ATHLETES MUST SUCCESSFULLY COMPLETE THE STEPWISE RETURN-TO-PLAY PROTOCOL PRIOR TO BEING ALLOWED TO COMPETE IN A GAME OR COMPETITION IN ACCORDANCE WITH H.B. 2038.

PHYSICIAN INFORMATION

Diagnosis: _____ Concussion/ restrictions/ NO clearance _____ NO concussion/ NO restrictions/ Full clearance

The above named athlete was referred due to having signs/symptoms of a mild traumatic brain injury (MTBI). It is my professional judgment that the athlete may begin the Return-to-Play protocol once asymptomatic. Once the athlete has completed the Return-to-Play protocol, he/she is able to return to full-unrestricted sports participation.

_____ Athlete is **NOT CLEARED** at this time and is not allowed to participate in the Return-to-Play protocol. Athlete is to return to clinic for further evaluation on: _____

_____ Athlete is **CLEARED** to begin the required Return-to-Play protocol once asymptomatic, under the supervision of the Athletic Trainer, or school nurse, and designated coach. Once the athlete completes the protocol successfully, he/she does not need to return and is cleared for full sports participation.

_____ Athlete is cleared to begin the required Return-to-Play protocol under the supervision of the Athletic Trainer, or school nurse, and designated coach. Once the athlete completes the protocol successful, he/she **MUST RETURN FOR RE-EVALUATION** before being cleared for unrestricted sports.

Physician Name Printed: _____

Physician Signature: _____ Date: _____

Physician Address: _____

Physician Telephone: _____ Physician fax: _____

Athletic Trainer or school nurse clearance is required for full unrestricted participation.

Signature: _____ Date: _____



Spring Branch ISD

Home Instructions for Head Injury

_____ (athlete name) is being monitored for the possibility of a head injury, called a concussion on _____ (date) while participating in an athletic event. The following are instructions for this person's care over the next few days.

- 1 Do not drive a vehicle
- 2 Rest. No physical activity (full physical rest)
- 3 No TV/Video Games/Computer/TextMessaging
- 4 Do not take Aspirin or Ibuprofen (Advil, Motrin) or Naproxen (Aleve)
- 5 Tylenol (Acetaminophen) may be acceptable
- 6 You may sleep, but should be checked on periodically if exhibiting moderate to severe symptoms

Signs and symptoms of a closed head injury do not always present until hours or sometimes days after the initial trauma. Due to this fact, you should be aware of possible signs and symptoms that indicate a significant head injury including but not limited to the following.

- 1 Persistent or repeated vomiting
- 2 Convulsions/seizure
- 3 Vision changes
- 4 Any peculiar movements of the eyes, or if one pupil is larger than the other
- 5 Restless, irritability, or drastic changes in emotional control
- 6 Difficulty walking
- 7 Difficulty speaking or slurred speech
- 8 Progressive or sudden impairment of consciousness
- 9 Bleeding or drainage of fluid from the nose or ears
- 10 Any other abnormal behavior and/or sign or symptom

If any of the above occurs call an ambulance or take the athlete to the hospital Emergency Room.

Emergency Phone Numbers: EMS- 911

Supervising School Official: _____

Athletic Trainer: _____ **Office/Cell Number:** _____

Parent/Guardian Contact: Yes No Notes: _____

SBISD athletes who have sustained a concussion will be required to follow up with their licensed athletic trainer or middle school coach and school nurse each day until cleared by a physician. Although cleared by a physician, the athlete must still pass the progressive Return-to-Play protocol before they will be considered for release to full activity. (HB 2038, Natasha's Law)

Student Signature: _____ **Date:** _____

Parent/Guardian Signature: _____ **Date:** _____

Spring Branch ISD Post-Concussion Symptom Checklist

Name of Athlete: _____ Report Administrator: _____

Please use this scale to rate each symptom

None Mild Moderate Severe

0 1 2 3 4 5

Date & Time	Pre	Post
Reported Symptoms		
Headache		
Nausea		
Vomiting		
Balance Problems		
Dizziness		
Lightheadedness		
Fatigue		
Trouble falling asleep		
Sleeping more than usual		
Sleeping less than usual		
Drowsiness		
Sensitivity to light		
Sensitivity to noise		
Irritability		
Sadness		
Nervous/Anxious		
Feeling more emotional		
Numbness or tingling		
Feeling slowed down		
Feeling like "in a fog"		
Difficulty concentrating		
Difficulty remembering		
Visual problems		
Other		
Total		

Phase: _____
 Comments: _____

Date & Time	Pre	Post
Reported Symptoms		
Headache		
Nausea		
Vomiting		
Balance Problems		
Dizziness		
Lightheadedness		
Fatigue		
Trouble falling asleep		
Sleeping more than usual		
Sleeping less than usual		
Drowsiness		
Sensitivity to light		
Sensitivity to noise		
Irritability		
Sadness		
Nervous/Anxious		
Feeling more emotional		
Numbness or tingling		
Feeling slowed down		
Feeling like "in a fog"		
Difficulty concentrating		
Difficulty remembering		
Visual problems		
Other		
Total		

Phase: _____
 Comments: _____

Date & Time	Pre	Post
Reported Symptoms		
Headache		
Nausea		
Vomiting		
Balance Problems		
Dizziness		
Lightheadedness		
Fatigue		
Trouble falling asleep		
Sleeping more than usual		
Sleeping less than usual		
Drowsiness		
Sensitivity to light		
Sensitivity to noise		
Irritability		
Sadness		
Nervous/Anxious		
Feeling more emotional		
Numbness or tingling		
Feeling slowed down		
Feeling like "in a fog"		
Difficulty concentrating		
Difficulty remembering		
Visual problems		
Other		
Total		

Phase: _____
 Comments: _____

*****This form must be completed daily (Nurse/Campus Designee)

Stepwise Return-to-Play Documentation Checklist

Athlete Name:

Date of Injury:

No physical activity until student-athlete is symptom free for 24 hours and receives written clearance from a physician using the Head Injury Referral Form.

Date	Level	Description of Activity	*Symptoms Reported	Coach/LAT	Athlete
	Phase 1- Light aerobic exercise, walking or stationary bike, 10-15 minutes, <70% max heart rate. NO resistance training.				
	Phase 2- Moderate aerobic exercise, stationary bike, elliptical, jogging keeping intensity <85% max heart rate. Begin light resistance training.				
	Phase 3- Sport-specific drills without contact; NO head impact activities. Continue Light resistance training.				
	Phase 4A- Sport-specific drills, light contact drills with NO live opponent contact drills. Progressive return to normal resistance training.				
	Phase 4B- Full contact drills; participate in normal training activities but NO games or competition play.				
	Phase 5- Return to FULL sports participation. A SBISD Athletic Trainer is the only SBISD employee allowed to release an athlete to unrestricted activity. <i>**Note: In absence of competition, off-season athletes must complete an additional Phase 4b in lieu of Phase 5 to fulfill RTP requirements.</i>				

***If the student-athlete experiences any post-concussion symptoms during the return to activity progression, activity is discontinued and the student-athlete must be re-evaluated by a licensed health care professional.**

****** In order for an athlete to be released to unrestricted activity, the following documents must be completed and returned to the athletic trainer.

1. The Head Injury Referral Form
2. The UIL Return-to-Play Form (The athletic trainer will act as the designated school district official and fill out that portion of the form)
3. The Post-Concussion Symptom Check (This form will be filled out by the school nurse/campus designee at the Middle School level)
4. The Stepwise Return-to-Play Documentation Checklist



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

- 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.
- The student has completed the Return to Play protocol established by the school district Concussion Oversight Team.
- The school has received a written statement from the treating physician indicating, that in the physician's professional judgment, it is safe for the student to return to play.

School Individual Signature

Date

School Individual Name (Please Print)

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

Please Check

- 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.
- 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 under Subdivision (3) and, if any, the return to play recommendations of the treating physician.
- 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)



SPRING BRANCH ISD CONCUSSION EDUCATIONAL HANDOUTS

PARENTS' CONCUSSION MANAGEMENT INSTRUCTIONS

Dear Parent or Guardian:

Your child sustained a head injury while participating in athletics. Please be observant for the following signs and symptoms:

DANGER SIGNS AND SYMPTOMS SEEK IMMEDIATE MEDICAL ATTENTION

- ▶ Headache that increases in intensity
- ▶ Deterioration of neurological function (weakness, numbness, decreased coordination, unsteadiness with movement)
- ▶ Loss of consciousness or noticeable change in level of consciousness (athlete has difficulty awakening or responding, increasing drowsiness or lethargy)
- ▶ Moderate to severe nausea or repeated and uncontrollable vomiting
- ▶ Increasing mental confusion, restlessness, agitation, irritability
- ▶ Unusual changes in behavior or personality
- ▶ Convulsions or seizure activity
- ▶ Slurred speech
- ▶ Blurry or double vision
- ▶ Difference in pupil shape or size from right to left eye, dilated or unreactive pupils
- ▶ Decreased or irregular respirations or pulse
- ▶ Notable increase or decrease in blood pressure

COMMON SIGNS AND SYMPTOMS MONITOR FOR CHANGES

- ▶ Headache
- ▶ Mild to moderate nausea or vomiting (not repeatedly)
- ▶ Feeling "foggy" or "slowed down"
- ▶ Difficulty remembering, concentrating, or focusing on tasks
- ▶ Amnesia – Does not remember either a portion of time before the impact or immediately following the injury
- ▶ Dizziness, balance problems, ringing in the ears
- ▶ Sensitivity to light and/or noise
- ▶ Fatigue
- ▶ Drowsiness, sleeping more or less than normal, or trouble falling asleep
- ▶ Visual problems
- ▶ Irritability, sadness, emotional, nervousness, or anxious

The best guideline is to note symptoms that worsen and behaviors that seem to represent a change in your child. If you have any question or concern about the symptoms that you are observing, contact your family physician, emergency room, or urgent care clinic. Otherwise, you can follow the instructions outlined below.

It is OK to...

- ✓ Use acetaminophen (Tylenol[®]) for headaches only if directed by physician
- ✓ Use ice packs on head and neck as needed for comfort and relief
- ✓ Eat a light diet (Avoid spicy foods)
- ✓ Go to sleep
- ✓ Rest (NO strenuous activity or sports)

Limit or Restricted use of...

- Cell phone, especially texting
- Computer work and e-mail
- TV, video games
- Large screen projectors

There is NO need to...

- ◆ Check eyes with a flashlight
- ◆ Wake athlete up every hour
- ◆ Test reflexes
- ◆ Stay in bed

Do NOT...

- ✗ Drink alcohol
- ✗ Drive until medically cleared
- ✗ Exercise or lift weights until medically cleared
- ✗ Take ibuprofen, aspirin, naproxen or any other form of NSAIDS, (i.e., Advil, Aleve, Motrin IB, Aspirin, Excedrin, etc.), unless authorized by a physician
- ✗ Take any form of sleep aids

Please remind your child to check with an athletic trainer or school nurse **BEFORE** going to class.

If you have any questions with regards injury reporting or concussion management policy, please call your campus athletic trainer(s) or school nurse.

GUIDE FOR REFERRAL TO PHYSICIAN

WHEN IN DOUBT, REFER THE ATHLETE TO THE NEAREST HOSPITAL EMERGENCY DEPARTMENT

IMMEDIATE EMERGENCY REFERRAL SYMPTOMS **(The athlete needs to be transported to the nearest hospital)**

1. Deterioration of neurologic function – reports loss of sensation, difficulty moving a limb, numbness, or decreased coordination
2. Loss of consciousness or notable change in level of consciousness – has difficulty awakening or responding
3. Moderate to severe nausea or repeated, uncontrollable vomiting
4. Decreased or irregular respirations
5. Decreased or irregular pulse
6. Unequal, dilated or unreactive pupils or changes in pupil shape or size from right to left eye
7. Any signs or symptoms of associated with neck or spine injury spine, skull fracture or severe bleeding
8. Mental confusion, restlessness, increased agitation, lethargy, or demonstrates any unusual behavior changes
9. Convulsions or seizure activity

DAY-OF-INJURY REFERRAL SYMPTOMS **(If these symptoms are observed later in the day on the same day that the injury occurred, seek medical attention)**

1. Increased amnesia
2. Notable increase or decrease in blood pressure
3. Increased nausea and vomiting
4. Balance deficits
5. Any post-concussion symptoms that worsen or intensify
6. Additional concussion symptoms that are observed as compared with sideline examination following injury
7. Athlete is symptomatic one hour after initial evaluation following injury

DELAYED REFERRAL SYMPTOMS **(If these symptoms are observed on the day after the injury, seek medical attention)**

1. Any of the findings from the DAY-OF-INJURY symptoms listed above
2. Post-concussion symptoms have become worse or increase in intensity
3. Increase in the number of symptoms reported by the athlete
4. Post-concussion symptoms that begin to interfere with daily activities

CONCUSSION FACT SHEET

What is a concussion?

A concussion is an injury to the brain. Concussions are caused by a bump, blow or jolt to the head or body. Even a “ding,” “getting your bell rung” or what seems to be a mild bump to the head can be serious.

What are the signs and symptoms?

You can't see a concussion. Signs and symptoms of a concussion can appear immediately after the injury or may not appear or be noticed until days after the injury. If your student athlete reports one or more of the symptoms listed below, or if you notice the symptoms yourself, keep your student athlete out of practice and play, and seek medical attention immediately.

OBSERVABLE SIGNS

- ▶ Appears dazed or stunned
- ▶ Confused about assignments or position
- ▶ Forgets an instruction
- ▶ Unsure of game, score, opponent
- ▶ Moves clumsily
- ▶ Answers questions slowly
- ▶ Loses consciousness (even briefly)
- ▶ Can't recall events prior to hit or fall
- ▶ Can't recall events after a hit or fall

SYMPTOMS REPORTED BY ATHLETE

- ▶ Headache or “pressure in head”
- ▶ Nausea or vomiting
- ▶ Dizziness, balance problems
- ▶ Double or blurry vision
- ▶ Sensitivity to light or noise
- ▶ Feeling sluggish, hazy, foggy or groggy
- ▶ Concentration or memory problems
- ▶ Confusion
- ▶ “Not feeling right” or “feeling down”

DANGER SIGNS

Be alert for symptoms that worsen over time. The student athlete should be seen in an emergency department right away if she or he has:

- ▶ One pupil larger than the other
- ▶ Drowsiness or cannot be awakened
- ▶ A headache that gets worse and does not go away
- ▶ Repeated vomiting or nausea
- ▶ Slurred speech
- ▶ Convulsions or seizures
- ▶ Difficulty recognizing people or places
- ▶ Increasing confusion, restlessness or agitation
- ▶ Unusual behavior
- ▶ Loss of consciousness (even a brief loss of consciousness should be taken seriously)

POST-CONCUSSION COGNITIVE RECOMMENDATIONS / MODIFICATIONS

Some individuals may be able to attend school without increasing their post-concussion symptoms. However, most students will require some academic modifications, depending on the nature of their symptoms, to allow for the best recovery potential.

The following is a list of suggested modifications that may be requested by the treating physician, neurologist or neuropsychologist for the student athlete to fully recover from a concussion:

SCHOOL ATTENDANCE

- ▶ Half days of classes depending upon the severity
- ▶ Allow student to have access to an elevator pass to avoid taking the stairs if at all possible
- ▶ Homebound instruction, if deemed necessary per neuropsychologist or treating physician

DRIVING RESTRICTIONS

- ▶ Student may need to be driven to school and avoid walking to school due to symptoms especially in regards to inhibited reaction times

ACADEMIC MODIFICATIONS

- ▶ Postpone examinations
- ▶ Limit the number of exams or quizzes in a week
- ▶ Allow for untimed tests and assignments
- ▶ Reduce the workload of assignments to allow completion of only ½ of assigned problems
- ▶ Reduction of class time spent on reading or writing assignments
- ▶ Allow frequent breaks throughout school day which may require a quiet area separate from others, i.e. with the school nurse or athletic trainer, if convenient and accessible with supervision
- ▶ Provide student with pre-printed class notes or allow student to obtain notes from peers
- ▶ Allow additional time to make up missed assignments gradually
- ▶ Provide tutoring as needed

CLASSROOM / ENVIRONMENT

- ▶ Reduction of time spent on computer
- ▶ Minimize viewing classroom instruction on large screen projectors, TVs or SmartBoards

GYM / PHYSICAL EDUCATION / ATHLETICS

- ▶ Allow student not to participate in athletics, gym, or physical education classes until deemed appropriate by neuropsychologist or treating physician
- ▶ Once student has been released to participate in athletics, gym, or physical education classes, the student must maintain participation based upon the Post-Concussion Return-to-Play protocol

SIGNS AND SYMPTOMS COMMONLY REPORTED BY TEACHERS OF CONCUSSED STUDENTS

- ▶ Increased problems paying attention, focusing on tasks, or concentrating
- ▶ Increased problems remembering or learning new information
- ▶ Difficulty organizing tasks and staying on tasks
- ▶ Inappropriate or impulsive behavior or outbursts during class
- ▶ Greater irritability, frustration, restlessness, nervousness
- ▶ Ability to cope with stress is reduced or more emotional than usual
- ▶ Answers questions slowly
- ▶ Forgets class schedule or work assignments



**UNIVERSITY INTERSCHOLASTIC LEAGUE
Request For Accommodation**

Section 504 of the Rehabilitation Act and/or Title II of the Americans with Disabilities Act (ADA)

SECTION I: STUDENT RECORD INFORMATION

Type or Print Student's Name _____

Date of Birth _____ Male ___ Female ___ Current Year in School K-8 9 10 11 12

Parent or Guardian's Name _____ Email address _____

Mailing Address _____

City/Zip _____ Home Phone # _____

Name/Address of School _____

Principal's name _____ School Phone # _____ Email address _____

Name/address of ISD _____

Superintendent's Name _____ Email address _____

SECTION II: INSTRUCTIONS TO COMMITTEE

This form is to be completed by an appropriate administrator after consultation with a properly constituted Sec. 504 Committee and/or A.R.D. Committee. After reviewing the Committee's determinations regarding a student's need for accommodation in order to participate in a UIL game or contest, the superintendent of schools, campus principal or designee is to review all relevant information and, unless the administrator has a legitimate basis for concern, sign the UIL request form. By signing this form, the administrator verifies that a properly constituted 504 Committee and/or A.R.D. Committee has made the required determinations in reference to the physical or mental impairment that leads to the request for accommodation.

The administrator must review the following documents:

- Current accommodation plan and/or I.E.P.;
- 504 Committee and/or A.R.D. Committee notes/reports on initial eligibility and placement;
- Current 504 accommodation plan or report of Committee meeting where student was dismissed from 504;
- Documentation substantiating the physical or mental impairment;
- Documentation supporting the finding of substantial limitation;

No records are to be submitted to UIL. The only required submission to UIL is this signed application form.

SECTION III: SPECIFIC ACCOMMODATION(S) REQUEST

Please provide a detailed explanation of the UIL activities in which the student participates and the specific accommodation(s) requested to applicable UIL contest rules or procedures for those activities (attach separate sheet if necessary): _____

SECTION IV: ADMINISTRATOR'S STATEMENT

Please check:

_____ I certify that I have reviewed documentation, which verifies that this student is a student with disabilities as defined by Section 504 of the Rehabilitation Act and/or Title II of the Americans with Disabilities Act, and is currently being served under either of those Acts.

Signature of Administrator _____ Date _____

Instructions for submission: When completed and signed by the all applicable parties, this application form should be submitted to the UIL office (Music, Academic or Athletics) that oversees the contest or event in question. *No accommodations to UIL contest rules or procedures requested in this application will be provided unless and until approved by University Interscholastic League.*

Send via regular mail:

University Interscholastic League
(Academics or Athletics or Music) Department Accommodation Request
Box 8028
Austin, TX 78713

Or by email:

For Academic contests, submit form to Dr. David Stevens, Director, UIL Academics. dstevens@uiltexas.org

For Music contests, submit form to Dr. Brad Kent, Director, UIL Academics. bkent@uiltexas.org

For Athletic Contests, submit form to UIL Athletics. athletics@uiltexas.org

SECTION V: BASIS FOR DECISION

The ADA and Section 504 require that accommodations be provided to individuals with disabilities when certain conditions are satisfied. Each case will be decided on its own merits. In reaching its decisions, the UIL will follow applicable law and consider the following:

- whether the requested accommodation(s) is "reasonable";
- whether the requested accommodation(s) is "necessary,"; and
- whether the requested accommodation(s) would "fundamentally alter the nature of" the competition, either because it would alter an "essential aspect of the game" or activity or give the student an "advantage over others and, for that reason, fundamentally alter the character" of the competition.

Support for Students with Temporary Physical/Medical Conditions

Who Should Use This Form?

This form should be used only to request testing support for **students with temporary impairments** (caused by injury, accident, etc.) who cannot postpone their tests. Use for the SAT, SAT Subject Tests, and AP Exams.

- Students seeking testing supports for impairments that are not temporary must use SSD Online or complete the College Board's Student Eligibility Form to receive approval for testing accommodations.
- For students taking AP Exams, if the temporary impairment will be resolved by the late testing dates, the AP Coordinator should not seek temporary support. Instead, go to www.collegeboard.com/school and order an alternate exam for the student (note ordering deadlines). In such cases, there is no additional charge for late testing.
- Temporary support on the SAT is available only to seniors.

Important: If a student uses extended testing time or any other testing support without first receiving written authorization from the College Board's SSD office, that student's test score(s) will not be reported.

Directions for SSD Coordinator (or other appropriate school official)

1. Complete Part 1. You will need information from the student's doctor and teachers.
2. Enter your school code on all pages.
3. Give the student a copy of this form. The student must obtain written confirmation from his/her doctor regarding the needed supports. Remind the student that the doctor must provide information pertaining to all items in Part 3 and that the student and parent or guardian must sign Part 2. The student should return the signed form and documentation to you.
4. Collect a completed Teacher's Survey Form (Part 4) from the student's teacher(s). If the student is taking an AP Exam, collect a Teacher's Survey from each of the AP teachers in whose subject the student is taking an AP Exam. For the SAT, include a Teacher's Survey from the student's core teachers. (Teachers may respond on a separate sheet as long as it contains all information requested in Part 4, including the student's name.)
5. Depending on the student's physical/medical condition, additional documentation may be needed. **Note:** If the student is requesting testing assistance for a concussion or head injury, copies of medical evaluation(s) and testing (e.g., ImPACT testing or neuropsychological evaluation) must be included.
6. Fax the completed request form along with any attachments to (973) 735-1900. If you are unable to fax, mail the request form and documents to:

College Board Services for Students with Disabilities - Temporary Supports
Educational Testing Service
1425 Lower Ferry Road
Ewing, NJ 08618

Time Frame

Submit this form and documentation as soon as the temporary impairment has been medically verified. The College Board will expedite processing of temporary support forms. However, an appropriate review and determination cannot occur instantaneously. Individuals who submit requests or information shortly before a scheduled College Board test should be prepared to be informed that there was insufficient time to make a determination on their request. The College Board will reply by email or fax as soon as possible.

Support for Students with Temporary Physical/Medical Conditions

PART 1: To Be Completed by School Official

Student Name: _____ Date of Birth: _____

Expected Date of Graduation (month/year): _____ School Code: _____

If you don't know your school's code, look it up at <http://sat.collegeboard.org/register/sat-code-search>.

School Name: _____

City: _____ State: _____

Specify the tests(s) and date(s) for which the student needs support (for SAT Subject Tests and AP Exams, indicate subject as well):

Exam Name: _____ Exam Date: _____ Exam Subject: _____

Exam Name: _____ Exam Date: _____ Exam Subject: _____

Exam Name: _____ Exam Date: _____ Exam Subject: _____

Exam Name: _____ Exam Date: _____ Exam Subject: _____

Describe the specific support requested:

Describe the injury/medical condition, including date of onset:

Name of school official completing form: _____ Title: _____

Telephone: _____ Fax: _____ Email: _____

What is the best way to contact you? Telephone Fax Email

Signature of School Official: _____ Date: _____

PART 2: Student and Parent/Guardian Signatures

Agreement below must be signed by the student and, if the student is under 18, the student's parent/guardian before the request can be processed.

I wish to request support on College Board test(s) for a temporary physical/medical condition. I give the College Board permission to receive and review my records and to discuss my physical/medical condition and needs with school personnel and other professionals.

Student Signature: _____ Date: _____

Parent/Guardian Signature: _____ Date: _____

Support for Students with Temporary Physical/Medical Conditions

PART 3: Doctor's Confirmation

Return to school official: _____ by _____ (date). School Code: _____

Attach a letter from the doctor that responds to **ALL** of the following statements (this request for support cannot be considered unless each of the following items has been addressed):

- 1) Description of injury and degree of impairment.
- 2) Date of injury/onset of condition.
- 3) Expected date of recovery.
- 4) For students with hand/arm/wrist injuries:
 - a. If the student is in a cast or restraining device:
 - Indication of the area covered (a picture can be substituted).
 - The anticipated date of removal of the cast/device.
 - If the cast/device is removable, indicate when it must be worn and any restrictions during removal periods.
 - If the cast involves the hand, the degree of movement that is possible with the hands and fingers.
 - b. If a hand or arm is affected, is this the dominant hand/arm (i.e., the one with which the student customarily writes)?
- 5) For students who are requesting testing assistance for a concussion/head injury, you **must** include:
 - a. Copies of a medical evaluation.
 - b. Copies of testing that has been completed (e.g., ImPACT testing or neuropsychological evaluation). Please note that ImPACT testing is a brief screening measure, not a diagnostic instrument, and without other measures is not sufficient to establish a need for support. If this is the only testing available, be sure to provide a detailed medical evaluation.
 - c. Information regarding the student's current condition, including:
 - i. Full description of the injury, including how the student was injured and whether the student lost consciousness.
 - ii. Description of **current** symptoms, including frequency, intensity, and duration of current symptoms.
 - iii. Description of current medical restrictions, if any.
 - iv. If extended time is requested, information about the student's ability to perform timed tasks.

Please note that concussions have a normal course of recovery and, therefore, documentation should include symptom progression during and after the recovery phase.

The doctor's confirmation must clearly indicate the doctor's name, specialty, address, and phone number and must be signed and dated by the doctor.

Support for Students with Temporary Physical/Medical Conditions

Part 4: Teacher Survey Form

Student Name: _____ Return To: _____

Teacher Name: _____ Subject/Class: _____ School Code: _____

To the teacher: The student named in Part 1 has requested temporary assistance for College Board tests. Your detailed input regarding his/her needs on classroom tests is valuable in our decision making process.

1. How long has the student been in your class? _____
2. **OBSERVATION:** Briefly describe your observations of the student's condition and its impact during your class. Where possible, provide specific examples. Include the frequency and severity of symptoms displayed during class.

3. **SUPPORTS USED:** What specific temporary supports are used by the student during classroom testing? Please indicate which of these supports are used on a consistent basis.

4. **EXTENDED TIME USED:** If the student is provided extended time for classroom tests, how much additional time does he/she generally use (e.g., 50%) to complete each of the following question types? (Note: Indicate time actually used, not the time approved.)

- a. Multiple-choice test items: _____
- b. Other question types, such as short-answer questions, essays, and math problems (Indicate the amount of additional time used for each applicable type):

- c. How does the student generally use the extended time (e.g., to complete test questions, to review completed test questions, to take breaks, etc.)?

5. **IMPACT:** Describe the impact of the provided supports on the student's performance. Does the student use the temporary supports effectively? How does it change his/her performance on tests? What happens if supports are not provided?

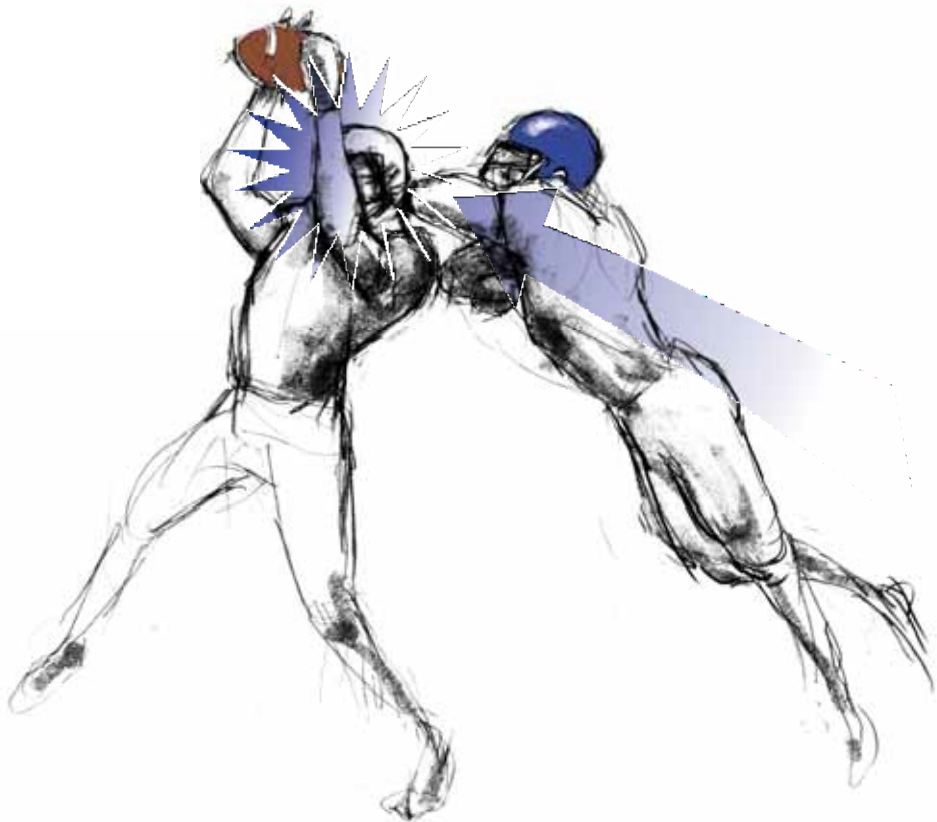
Signature: _____

Date: _____

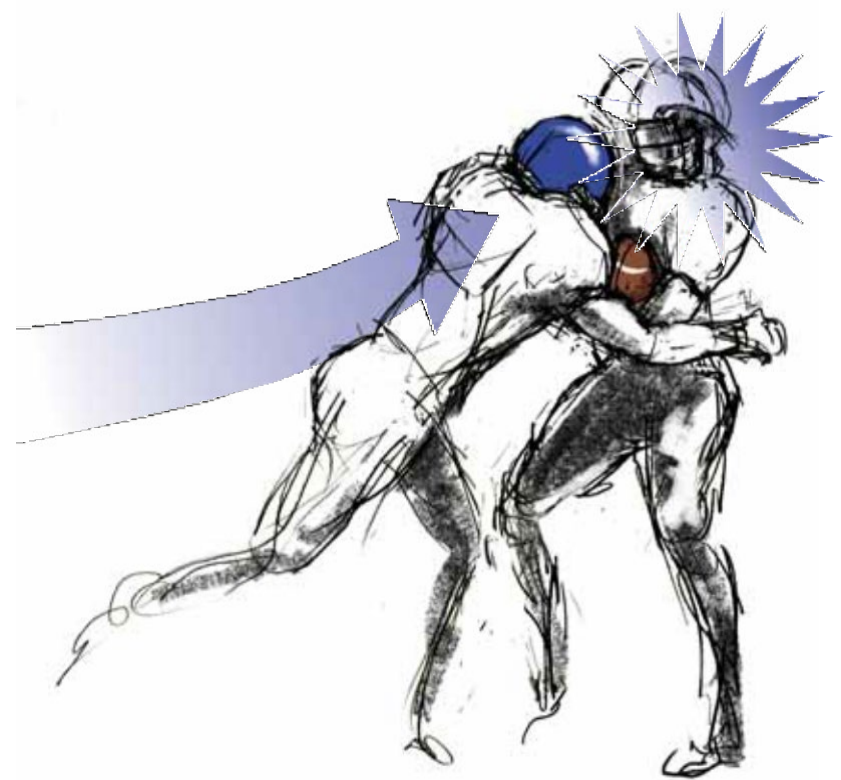
PROTECT YOUR HEAD AND NECK!

Don't punish yourself, your team, or your opponent...

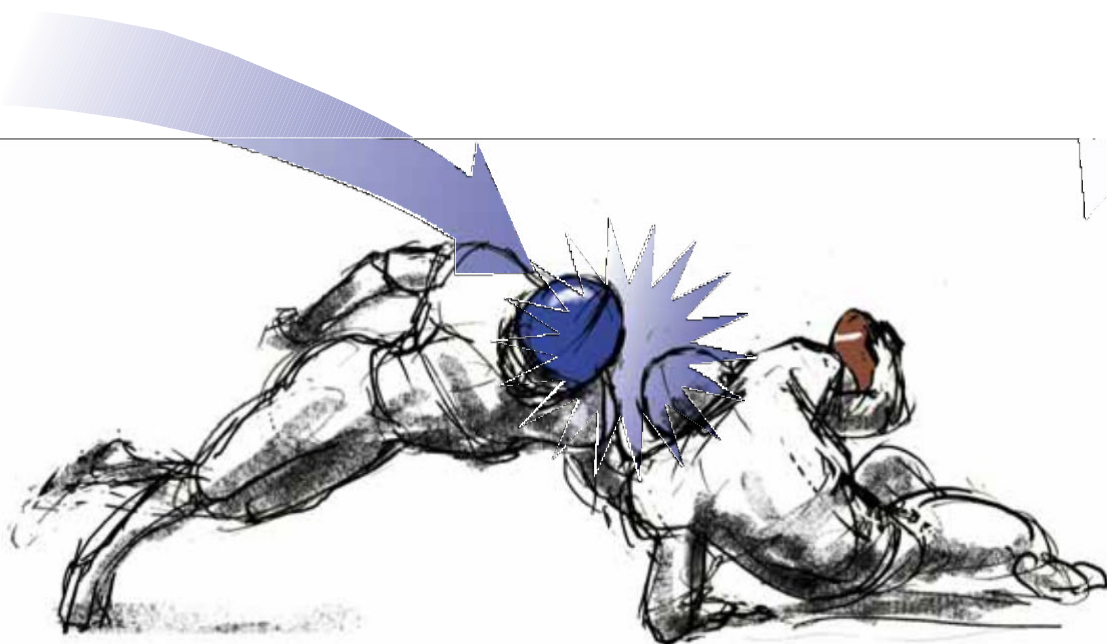
Striking your opponent with your helmet can be a 15-yard penalty and may result in serious injury to both you and your opponent!



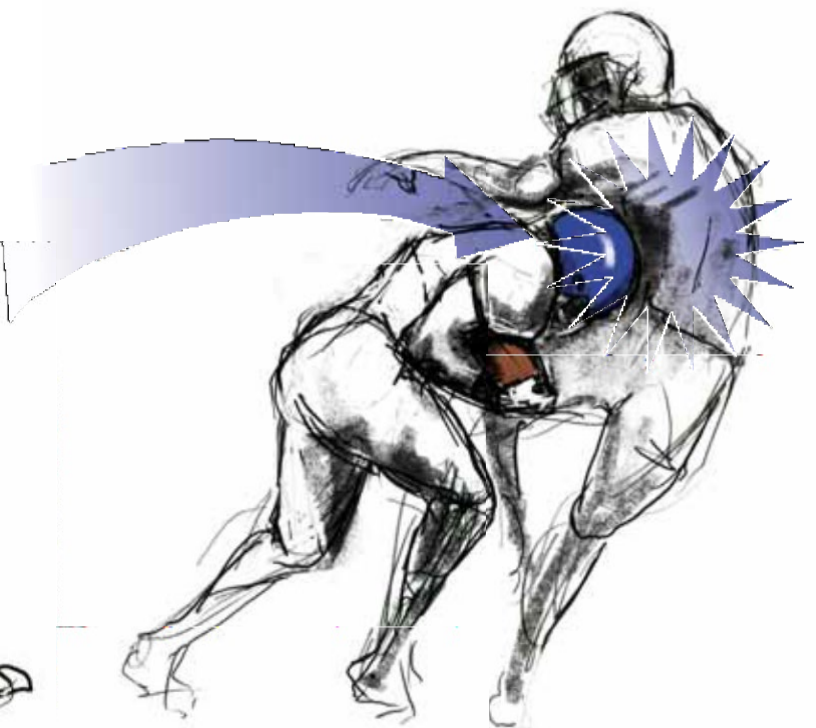
Targeting Defenseless Opponent



Helmet-to-Helmet



Launching



Offensive

NCAA® 2008 Rule Changes

9-1-2-1

- a) No player shall initiate contact and target an opponent with the crown of his helmet.
- b) No player shall initiate contact and target a defenseless opponent ABOVE THE SHOULDERS (i.e., whether or not with the helmet.)

*Even though rare, an offensive player can be penalized should he use his helmet to punish a player.



FIT AND FASTEN!

Buckle Up Completely.



Loss of Helmet During Play.

If a player's helmet comes off during play, he must not continue to participate in the play to prevent injury. If the helmet comes off other than as the direct result of an opponent's foul, the player must also leave the game and is not allowed to participate for the next play.

- Snug, comfortable fit.
- Should not wobble, tilt or rotate when twisted.
- Check air inflation daily.
- Follow manufacturer's guidelines for fit and care.

WARNING

Do not use this helmet to butt, ram or spear an opposing player. This is in violation of the football rules and such use can result in severe head or neck injuries, paralysis or death to you and possible injury to your opponent.

Supplement H2

No helmet can prevent all concussions, head or any neck injuries a player might sustain while participating in football.

NCAA[®]



**SPRING BRANCH ISD
CONCUSSION EVALUATION
ASSESSMENT INFORMATION**

SBISD

Concussion Management Card



Possible Signs and Symptoms Evaluation

Signs Observed by Staff

- appears to be dazed or stunned
- is confused about assignment
- forgets plays
- is unsure of game, score, or opponent
- moves clumsily
- answers questions slowly
- loses consciousness (even temporarily)
- shows behavior or personality change
- forgets events prior to hit (retrograde)
- forgets events after hit (anterograde)

Symptoms Reported by Athlete

- headache
- nausea
- balance problems or dizziness
- double or fuzzy vision
- sensitivity to light or noise
- feeling sluggish
- feeling “foggy”
- change in sleep pattern
- concentration or memory problems

**Symptoms may worsen with exertion or become present over time.
Any failure should be considered abnormal.**

On-Field Cognitive Testing

Orientation

- When did the headache start?
- What stadium/school is this?
- Who is the opposing team?
- What month is it?
- What day is it?

Anterograde Amnesia

Ask the athlete to repeat three words.

Ex. Girl, Dog, Green Ex. Ball, Red, School

Retrograde Amnesia

Ask the athlete the following questions.

- Do you remember what happened?
- When was the last time you ate?
- What did you have to eat last?
- What quarter/period are we in?
- What is the score of the game?

Concentration

Ask the athlete to do the following.

- Repeat the days of the week backward (starting with today).
- Repeat series of numbers backward:

Ex. 419 (914 is correct) 6385 (5836 is correct)

Word List Memory

Ask the athlete to repeat the three words from earlier

Ex. Girl, Dog, Green Ex. Ball, Red, School

**Any failure should be considered abnormal.
Consult a physician following a suspected concussion.**

SCAT5[©]

SPORT CONCUSSION ASSESSMENT TOOL – 5TH EDITION

DEVELOPED BY THE CONCUSSION IN SPORT GROUP
FOR USE BY MEDICAL PROFESSIONALS ONLY

supported by



FIFA[®]



FEI

Patient details

Name: _____

DOB: _____

Address: _____

ID number: _____

Examiner: _____

Date of Injury: _____ Time: _____

WHAT IS THE SCAT5?

The SCAT5 is a standardized tool for evaluating concussions designed for use by physicians and licensed healthcare professionals¹. The SCAT5 cannot be performed correctly in less than 10 minutes.

If you are not a physician or licensed healthcare professional, please use the Concussion Recognition Tool 5 (CRT5). The SCAT5 is to be used for evaluating athletes aged 13 years and older. For children aged 12 years or younger, please use the Child SCAT5.

Preseason SCAT5 baseline testing can be useful for interpreting post-injury test scores, but is not required for that purpose. Detailed instructions for use of the SCAT5 are provided on page 7. Please read through these instructions carefully before testing the athlete. Brief verbal instructions for each test are given in italics. The only equipment required for the tester is a watch or timer.

This tool may be freely copied in its current form for distribution to individuals, teams, groups and organizations. It should not be altered in any way, re-branded or sold for commercial gain. Any revision, translation or reproduction in a digital form requires specific approval by the Concussion in Sport Group.

Recognise and Remove

A head impact by either a direct blow or indirect transmission of force can be associated with a serious and potentially fatal brain injury. If there are significant concerns, including any of the red flags listed in Box 1, then activation of emergency procedures and urgent transport to the nearest hospital should be arranged.

Key points

- Any athlete with suspected concussion should be REMOVED FROM PLAY, medically assessed and monitored for deterioration. No athlete diagnosed with concussion should be returned to play on the day of injury.
- If an athlete is suspected of having a concussion and medical personnel are not immediately available, the athlete should be referred to a medical facility for urgent assessment.
- Athletes with suspected concussion should not drink alcohol, use recreational drugs and should not drive a motor vehicle until cleared to do so by a medical professional.
- Concussion signs and symptoms evolve over time and it is important to consider repeat evaluation in the assessment of concussion.
- The diagnosis of a concussion is a clinical judgment, made by a medical professional. The SCAT5 should NOT be used by itself to make, or exclude, the diagnosis of concussion. An athlete may have a concussion even if their SCAT5 is "normal".

Remember:

- The basic principles of first aid (danger, response, airway, breathing, circulation) should be followed.
- Do not attempt to move the athlete (other than that required for airway management) unless trained to do so.
- Assessment for a spinal cord injury is a critical part of the initial on-field assessment.
- Do not remove a helmet or any other equipment unless trained to do so safely.

IMMEDIATE OR ON-FIELD ASSESSMENT

The following elements should be assessed for all athletes who are suspected of having a concussion prior to proceeding to the neurocognitive assessment and ideally should be done on-field after the first first aid / emergency care priorities are completed.

If any of the "Red Flags" or observable signs are noted after a direct or indirect blow to the head, the athlete should be immediately and safely removed from participation and evaluated by a physician or licensed healthcare professional.

Consideration of transportation to a medical facility should be at the discretion of the physician or licensed healthcare professional.

The GCS is important as a standard measure for all patients and can be done serially if necessary in the event of deterioration in conscious state. The Maddocks questions and cervical spine exam are critical steps of the immediate assessment; however, these do not need to be done serially.

STEP 1: RED FLAGS

RED FLAGS:

- Neck pain or tenderness
- Double vision
- Weakness or tingling/burning in arms or legs
- Severe or increasing headache
- Seizure or convulsion
- Loss of consciousness
- Deteriorating conscious state
- Vomiting
- Increasingly restless, agitated or combative

STEP 2: OBSERVABLE SIGNS

Witnessed Observed on Video

	Y	N
Lying motionless on the playing surface	Y	N
Balance / gait difficulties / motor incoordination: stumbling, slow / laboured movements	Y	N
Disorientation or confusion, or an inability to respond appropriately to questions	Y	N
Blank or vacant look	Y	N
Facial injury after head trauma	Y	N

STEP 3: MEMORY ASSESSMENT MADDOCKS QUESTIONS²

"I am going to ask you a few questions, please listen carefully and give your best effort. First, tell me what happened?"

Mark Y for correct answer / N for incorrect

	Y	N
What venue are we at today?	Y	N
Which half is it now?	Y	N
Who scored last in this match?	Y	N
What team did you play last week / game?	Y	N
Did your team win the last game?	Y	N

Note: Appropriate sport-specific questions may be substituted.

Name: _____
 DOB: _____
 Address: _____
 ID number: _____
 Examiner: _____
 Date: _____

STEP 4: EXAMINATION

GLASGOW COMA SCALE (GCS)³

Time of assessment			
Date of assessment			
Best eye response (E)			
No eye opening	1	1	1
Eye opening in response to pain	2	2	2
Eye opening to speech	3	3	3
Eyes opening spontaneously	4	4	4
Best verbal response (V)			
No verbal response	1	1	1
Incomprehensible sounds	2	2	2
Inappropriate words	3	3	3
Confused	4	4	4
Oriented	5	5	5
Best motor response (M)			
No motor response	1	1	1
Extension to pain	2	2	2
Abnormal flexion to pain	3	3	3
Flexion / Withdrawal to pain	4	4	4
Localizes to pain	5	5	5
Obeys commands	6	6	6
Glasgow Coma score (E + V + M)			

CERVICAL SPINE ASSESSMENT

Does the athlete report that their neck is pain free at rest?	Y	N
If there is NO neck pain at rest , does the athlete have a full range of ACTIVE pain free movement?	Y	N
Is the limb strength and sensation normal?	Y	N

In a patient who is not lucid or fully conscious, a cervical spine injury should be assumed until proven otherwise.

OFFICE OR OFF-FIELD ASSESSMENT

Please note that the neurocognitive assessment should be done in a distraction-free environment with the athlete in a resting state.

STEP 1: ATHLETE BACKGROUND

Sport / team / school: _____

Date / time of injury: _____

Years of education completed: _____

Age: _____

Gender: M / F / Other

Dominant hand: left / neither / right

How many diagnosed concussions has the athlete had in the past?: _____

When was the most recent concussion?: _____

How long was the recovery (time to being cleared to play) from the most recent concussion?: _____ (days)

Has the athlete ever been:

	Yes	No
Hospitalized for a head injury?		
Diagnosed / treated for headache disorder or migraines?		
Diagnosed with a learning disability / dyslexia?		
Diagnosed with ADD / ADHD?		
Diagnosed with depression, anxiety or other psychiatric disorder?		

Current medications? If yes, please list:

Name: _____

DOB: _____

Address: _____

ID number: _____

Examiner: _____

Date: _____

2

STEP 2: SYMPTOM EVALUATION

The athlete should be given the symptom form and asked to read this instruction paragraph out loud then complete the symptom scale. For the baseline assessment, the athlete should rate his/her symptoms based on how he/she typically feels and for the post injury assessment the athlete should rate their symptoms at this point in time.

Please Check: Baseline Post-Injury

Please hand the form to the athlete

	none	mild	moderate	severe			
Headache	0	1	2	3	4	5	6
"Pressure in head"	0	1	2	3	4	5	6
Neck Pain	0	1	2	3	4	5	6
Nausea or vomiting	0	1	2	3	4	5	6
Dizziness	0	1	2	3	4	5	6
Blurred vision	0	1	2	3	4	5	6
Balance problems	0	1	2	3	4	5	6
Sensitivity to light	0	1	2	3	4	5	6
Sensitivity to noise	0	1	2	3	4	5	6
Feeling slowed down	0	1	2	3	4	5	6
Feeling like "in a fog"	0	1	2	3	4	5	6
"Don't feel right"	0	1	2	3	4	5	6
Difficulty concentrating	0	1	2	3	4	5	6
Difficulty remembering	0	1	2	3	4	5	6
Fatigue or low energy	0	1	2	3	4	5	6
Confusion	0	1	2	3	4	5	6
Drowsiness	0	1	2	3	4	5	6
More emotional	0	1	2	3	4	5	6
Irritability	0	1	2	3	4	5	6
Sadness	0	1	2	3	4	5	6
Nervous or Anxious	0	1	2	3	4	5	6
Trouble falling asleep (if applicable)	0	1	2	3	4	5	6

Total number of symptoms: _____ of 22

Symptom severity score: _____ of 132

Do your symptoms get worse with physical activity? Y N

Do your symptoms get worse with mental activity? Y N

If 100% is feeling perfectly normal, what percent of normal do you feel?

If not 100%, why?

Please hand form back to examiner

STEP 3: COGNITIVE SCREENING

Standardised Assessment of Concussion (SAC)⁴

ORIENTATION

What month is it?	0	1
What is the date today?	0	1
What is the day of the week?	0	1
What year is it?	0	1
What time is it right now? (within 1 hour)	0	1
Orientation score	of 5	

IMMEDIATE MEMORY

The Immediate Memory component can be completed using the traditional 5-word per trial list or optionally using 10-words per trial to minimise any ceiling effect. All 3 trials must be administered irrespective of the number correct on the first trial. Administer at the rate of one word per second.

Please choose EITHER the 5 or 10 word list groups and circle the specific word list chosen for this test.

I am going to test your memory. I will read you a list of words and when I am done, repeat back as many words as you can remember, in any order. For Trials 2 & 3: I am going to repeat the same list again. Repeat back as many words as you can remember in any order, even if you said the word before.

List	Alternate 5 word lists					Score (of 5)		
						Trial 1	Trial 2	Trial 3
A	Finger	Penny	Blanket	Lemon	Insect			
B	Candle	Paper	Sugar	Sandwich	Wagon			
C	Baby	Monkey	Perfume	Sunset	Iron			
D	Elbow	Apple	Carpet	Saddle	Bubble			
E	Jacket	Arrow	Pepper	Cotton	Movie			
F	Dollar	Honey	Mirror	Saddle	Anchor			
Immediate Memory Score						of 15		
Time that last trial was completed								

List	Alternate 10 word lists					Score (of 10)		
						Trial 1	Trial 2	Trial 3
G	Finger	Penny	Blanket	Lemon	Insect			
	Candle	Paper	Sugar	Sandwich	Wagon			
H	Baby	Monkey	Perfume	Sunset	Iron			
	Elbow	Apple	Carpet	Saddle	Bubble			
I	Jacket	Arrow	Pepper	Cotton	Movie			
	Dollar	Honey	Mirror	Saddle	Anchor			
Immediate Memory Score						of 30		
Time that last trial was completed								

Name: _____
 DOB: _____
 Address: _____
 ID number: _____
 Examiner: _____
 Date: _____

CONCENTRATION

DIGITS BACKWARDS

Please circle the Digit list chosen (A, B, C, D, E, F). Administer at the rate of one digit per second reading DOWN the selected column.

I am going to read a string of numbers and when I am done, you repeat them back to me in reverse order of how I read them to you. For example, if I say 7-1-9, you would say 9-1-7.

Concentration Number Lists (circle one)					
List A	List B	List C			
4-9-3	5-2-6	1-4-2	Y	N	0
6-2-9	4-1-5	6-5-8	Y	N	1
3-8-1-4	1-7-9-5	6-8-3-1	Y	N	0
3-2-7-9	4-9-6-8	3-4-8-1	Y	N	1
6-2-9-7-1	4-8-5-2-7	4-9-1-5-3	Y	N	0
1-5-2-8-6	6-1-8-4-3	6-8-2-5-1	Y	N	1
7-1-8-4-6-2	8-3-1-9-6-4	3-7-6-5-1-9	Y	N	0
5-3-9-1-4-8	7-2-4-8-5-6	9-2-6-5-1-4	Y	N	1
List D	List E	List F			
7-8-2	3-8-2	2-7-1	Y	N	0
9-2-6	5-1-8	4-7-9	Y	N	1
4-1-8-3	2-7-9-3	1-6-8-3	Y	N	0
9-7-2-3	2-1-6-9	3-9-2-4	Y	N	1
1-7-9-2-6	4-1-8-6-9	2-4-7-5-8	Y	N	0
4-1-7-5-2	9-4-1-7-5	8-3-9-6-4	Y	N	1
2-6-4-8-1-7	6-9-7-3-8-2	5-8-6-2-4-9	Y	N	0
8-4-1-9-3-5	4-2-7-9-3-8	3-1-7-8-2-6	Y	N	1
Digits Score:					of 4

MONTHS IN REVERSE ORDER

Now tell me the months of the year in reverse order. Start with the last month and go backward. So you'll say December, November. Go ahead.

Dec - Nov - Oct - Sept - Aug - Jul - Jun - May - Apr - Mar - Feb - Jan	0	1
Months Score	of 1	
Concentration Total Score (Digits + Months)	of 5	

4

STEP 4: NEUROLOGICAL SCREEN

See the instruction sheet (page 7) for details of test administration and scoring of the tests.

Can the patient read aloud (e.g. symptom check-list) and follow instructions without difficulty?	Y	N
Does the patient have a full range of pain-free PASSIVE cervical spine movement?	Y	N
Without moving their head or neck, can the patient look side-to-side and up-and-down without double vision?	Y	N
Can the patient perform the finger nose coordination test normally?	Y	N
Can the patient perform tandem gait normally?	Y	N

BALANCE EXAMINATION

Modified Balance Error Scoring System (mBESS) testing⁵

Which foot was tested (i.e. which is the non-dominant foot) Left Right

Testing surface (hard floor, field, etc.) _____

Footwear (shoes, barefoot, braces, tape, etc.) _____

Condition	Errors
Double leg stance	of 10
Single leg stance (non-dominant foot)	of 10
Tandem stance (non-dominant foot at the back)	of 10
Total Errors	of 30

Name: _____
 DOB: _____
 Address: _____
 ID number: _____
 Examiner: _____
 Date: _____

5

STEP 5: DELAYED RECALL:

The delayed recall should be performed after 5 minutes have elapsed since the end of the Immediate Recall section. Score 1 pt. for each correct response.

Do you remember that list of words I read a few times earlier? Tell me as many words from the list as you can remember in any order.

Time Started

Please record each word correctly recalled. Total score equals number of words recalled.

Total number of words recalled accurately: of 5 or of 10

6

STEP 6: DECISION

Domain	Date & time of assessment:		
Symptom number (of 22)			
Symptom severity score (of 132)			
Orientation (of 5)			
Immediate memory	of 15 of 30	of 15 of 30	of 15 of 30
Concentration (of 5)			
Neuro exam	Normal Abnormal	Normal Abnormal	Normal Abnormal
Balance errors (of 30)			
Delayed Recall	of 5 of 10	of 5 of 10	of 5 of 10

Date and time of injury: _____

If the athlete is known to you prior to their injury, are they different from their usual self?

Yes No Unsure Not Applicable

(If different, describe why in the clinical notes section)

Concussion Diagnosed?

Yes No Unsure Not Applicable

If re-testing, has the athlete improved?

Yes No Unsure Not Applicable

I am a physician or licensed healthcare professional and I have personally administered or supervised the administration of this SCAT5.

Signature: _____

Name: _____

Title: _____

Registration number (if applicable): _____

Date: _____

SCORING ON THE SCAT5 SHOULD NOT BE USED AS A STAND-ALONE METHOD TO DIAGNOSE CONCUSSION, MEASURE RECOVERY OR MAKE DECISIONS ABOUT AN ATHLETE'S READINESS TO RETURN TO COMPETITION AFTER CONCUSSION.

INSTRUCTIONS

Words in *Italics* throughout the SCAT5 are the instructions given to the athlete by the clinician

Symptom Scale

The time frame for symptoms should be based on the type of test being administered. At baseline it is advantageous to assess how an athlete "typically" feels whereas during the acute/post-acute stage it is best to ask how the athlete feels at the time of testing.

The symptom scale should be completed by the athlete, not by the examiner. In situations where the symptom scale is being completed after exercise, it should be done in a resting state, generally by approximating his/her resting heart rate.

For total number of symptoms, maximum possible is 22 except immediately post injury, if sleep item is omitted, which then creates a maximum of 21.

For Symptom severity score, add all scores in table, maximum possible is 22 x 6 = 132, except immediately post injury if sleep item is omitted, which then creates a maximum of 21x6=126.

Immediate Memory

The Immediate Memory component can be completed using the traditional 5-word per trial list or, optionally, using 10-words per trial. The literature suggests that the Immediate Memory has a notable ceiling effect when a 5-word list is used. In settings where this ceiling is prominent, the examiner may wish to make the task more difficult by incorporating two 5-word groups for a total of 10 words per trial. In this case, the maximum score per trial is 10 with a total trial maximum of 30.

Choose one of the word lists (either 5 or 10). Then perform 3 trials of immediate memory using this list.

Complete all 3 trials regardless of score on previous trials.

"I am going to test your memory. I will read you a list of words and when I am done, repeat back as many words as you can remember, in any order." The words must be read at a rate of one word per second.

Trials 2 & 3 MUST be completed regardless of score on trial 1 & 2.

Trials 2 & 3:

"I am going to repeat the same list again. Repeat back as many words as you can remember in any order, even if you said the word before."

Score 1 pt. for each correct response. Total score equals sum across all 3 trials. Do NOT inform the athlete that delayed recall will be tested.

Concentration

Digits backward

Choose one column of digits from lists A, B, C, D, E or F and administer those digits as follows:

Say: *"I am going to read a string of numbers and when I am done, you repeat them back to me in reverse order of how I read them to you. For example, if I say 7-1-9, you would say 9-1-7."*

Begin with first 3 digit string.

If correct, circle "Y" for correct and go to next string length. If incorrect, circle "N" for the first string length and read trial 2 in the same string length. One point possible for each string length. Stop after incorrect on both trials (2 N's) in a string length. The digits should be read at the rate of one per second.

Months in reverse order

"Now tell me the months of the year in reverse order. Start with the last month and go backward. So you'll say December, November ... Go ahead"

1 pt. for entire sequence correct

Delayed Recall

The delayed recall should be performed after 5 minutes have elapsed since the end of the Immediate Recall section.

"Do you remember that list of words I read a few times earlier? Tell me as many words from the list as you can remember in any order."

Score 1 pt. for each correct response

Modified Balance Error Scoring System (mBESS)⁵ testing

This balance testing is based on a modified version of the Balance Error Scoring System (BESS)⁵. A timing device is required for this testing.

Each of 20-second trial/stance is scored by counting the number of errors. The examiner will begin counting errors only after the athlete has assumed the proper start position. The modified BESS is calculated by adding one error point for each error during the three 20-second tests. The maximum number of errors for any single condition is 10. If the athlete commits multiple errors simultaneously, only

one error is recorded but the athlete should quickly return to the testing position, and counting should resume once the athlete is set. Athletes that are unable to maintain the testing procedure for a minimum of five seconds at the start are assigned the highest possible score, ten, for that testing condition.

OPTION: For further assessment, the same 3 stances can be performed on a surface of medium density foam (e.g., approximately 50cm x 40cm x 6cm).

Balance testing – types of errors

- | | | |
|---------------------------------|---|---|
| 1. Hands lifted off iliac crest | 3. Step, stumble, or fall | 5. Lifting forefoot or heel |
| 2. Opening eyes | 4. Moving hip into > 30 degrees abduction | 6. Remaining out of test position > 5 sec |

"I am now going to test your balance. Please take your shoes off (if applicable), roll up your pant legs above ankle (if applicable), and remove any ankle taping (if applicable). This test will consist of three twenty second tests with different stances."

(a) Double leg stance:

"The first stance is standing with your feet together with your hands on your hips and with your eyes closed. You should try to maintain stability in that position for 20 seconds. I will be counting the number of times you move out of this position. I will start timing when you are set and have closed your eyes."

(b) Single leg stance:

"If you were to kick a ball, which foot would you use? [This will be the dominant foot] Now stand on your non-dominant foot. The dominant leg should be held in approximately 30 degrees of hip flexion and 45 degrees of knee flexion. Again, you should try to maintain stability for 20 seconds with your hands on your hips and your eyes closed. I will be counting the number of times you move out of this position. If you stumble out of this position, open your eyes and return to the start position and continue balancing. I will start timing when you are set and have closed your eyes."

(c) Tandem stance:

"Now stand heel-to-toe with your non-dominant foot in back. Your weight should be evenly distributed across both feet. Again, you should try to maintain stability for 20 seconds with your hands on your hips and your eyes closed. I will be counting the number of times you move out of this position. If you stumble out of this position, open your eyes and return to the start position and continue balancing. I will start timing when you are set and have closed your eyes."

Tandem Gait

Participants are instructed to stand with their feet together behind a starting line (the test is best done with footwear removed). Then, they walk in a forward direction as quickly and as accurately as possible along a 38mm wide (sports tape), 3 metre line with an alternate foot heel-to-toe gait ensuring that they approximate their heel and toe on each step. Once they cross the end of the 3m line, they turn 180 degrees and return to the starting point using the same gait. Athletes fail the test if they step off the line, have a separation between their heel and toe, or if they touch or grab the examiner or an object.

Finger to Nose

"I am going to test your coordination now. Please sit comfortably on the chair with your eyes open and your arm (either right or left) outstretched (shoulder flexed to 90 degrees and elbow and fingers extended), pointing in front of you. When I give a start signal, I would like you to perform five successive finger to nose repetitions using your index finger to touch the tip of the nose, and then return to the starting position, as quickly and as accurately as possible."

References

1. McCrory et al. Consensus Statement On Concussion In Sport – The 5th International Conference On Concussion In Sport Held In Berlin, October 2016. British Journal of Sports Medicine 2017 (available at www.bjsm.bmj.com)
2. Maddocks, DL; Dicker, GD; Saling, MM. The assessment of orientation following concussion in athletes. Clinical Journal of Sport Medicine 1995; 5: 32-33
3. Jennett, B., Bond, M. Assessment of outcome after severe brain damage: a practical scale. Lancet 1975; i: 480-484
4. McCrea M. Standardized mental status testing of acute concussion. Clinical Journal of Sport Medicine. 2001; 11: 176-181
5. Guskiewicz KM. Assessment of postural stability following sport-related concussion. Current Sports Medicine Reports. 2003; 2: 24-30

CONCUSSION INFORMATION

Any athlete suspected of having a concussion should be removed from play and seek medical evaluation.

Signs to watch for

Problems could arise over the first 24-48 hours. The athlete should not be left alone and must go to a hospital at once if they experience:

- Worsening headache
- Drowsiness or inability to be awakened
- Inability to recognize people or places
- Repeated vomiting
- Unusual behaviour or confusion or irritable
- Seizures (arms and legs jerk uncontrollably)
- Weakness or numbness in arms or legs
- Unsteadiness on their feet.
- Slurred speech

Consult your physician or licensed healthcare professional after a suspected concussion. Remember, it is better to be safe.

Rest & Rehabilitation

After a concussion, the athlete should have physical rest and relative cognitive rest for a few days to allow their symptoms to improve. In most cases, after no more than a few days of rest, the athlete should gradually increase their daily activity level as long as their symptoms do not worsen. Once the athlete is able to complete their usual daily activities without concussion-related symptoms, the second step of the return to play/sport progression can be started. The athlete should not return to play/sport until their concussion-related symptoms have resolved and the athlete has successfully returned to full school/learning activities.

When returning to play/sport, the athlete should follow a stepwise, **medically managed exercise progression, with increasing amounts of exercise.** For example:

Graduated Return to Sport Strategy

Exercise step	Functional exercise at each step	Goal of each step
1. Symptom-limited activity	Daily activities that do not provoke symptoms.	Gradual reintroduction of work/school activities.
2. Light aerobic exercise	Walking or stationary cycling at slow to medium pace. No resistance training.	Increase heart rate.
3. Sport-specific exercise	Running or skating drills. No head impact activities.	Add movement.
4. Non-contact training drills	Harder training drills, e.g., passing drills. May start progressive resistance training.	Exercise, coordination, and increased thinking.
5. Full contact practice	Following medical clearance, participate in normal training activities.	Restore confidence and assess functional skills by coaching staff.
6. Return to play/sport	Normal game play.	

In this example, it would be typical to have 24 hours (or longer) for each step of the progression. If any symptoms worsen while exercising, the athlete should go back to the previous step. Resistance training should be added only in the later stages (Stage 3 or 4 at the earliest).

Written clearance should be provided by a healthcare professional before return to play/sport as directed by local laws and regulations.

Graduated Return to School Strategy

Concussion may affect the ability to learn at school. The athlete may need to miss a few days of school after a concussion. When going back to school, some athletes may need to go back gradually and may need to have some changes made to their schedule so that concussion symptoms do not get worse. If a particular activity makes symptoms worse, then the athlete should stop that activity and rest until symptoms get better. To make sure that the athlete can get back to school without problems, it is important that the healthcare provider, parents, caregivers and teachers talk to each other so that everyone knows what the plan is for the athlete to go back to school.

Note: If mental activity does not cause any symptoms, the athlete may be able to skip step 2 and return to school part-time before doing school activities at home first.

Mental Activity	Activity at each step	Goal of each step
1. Daily activities that do not give the athlete symptoms	Typical activities that the athlete does during the day as long as they do not increase symptoms (e.g. reading, texting, screen time). Start with 5-15 minutes at a time and gradually build up.	Gradual return to typical activities.
2. School activities	Homework, reading or other cognitive activities outside of the classroom.	Increase tolerance to cognitive work.
3. Return to school part-time	Gradual introduction of school-work. May need to start with a partial school day or with increased breaks during the day.	Increase academic activities.
4. Return to school full-time	Gradually progress school activities until a full day can be tolerated.	Return to full academic activities and catch up on missed work.

If the athlete continues to have symptoms with mental activity, some other accommodations that can help with return to school may include:

- Starting school later, only going for half days, or going only to certain classes
- Taking lots of breaks during class, homework, tests
- No more than one exam/day
- More time to finish assignments/tests
- Shorter assignments
- Quiet room to finish assignments/tests
- Repetition/memory cues
- Use of a student helper/tutor
- Not going to noisy areas like the cafeteria, assembly halls, sporting events, music class, shop class, etc.
- Reassurance from teachers that the child will be supported while getting better

The athlete should not go back to sports until they are back to school/learning, without symptoms getting significantly worse and no longer needing any changes to their schedule.



Sport concussion assessment tool - 5th edition

Br J Sports Med published online April 26, 2017

Updated information and services can be found at:
<http://bjsm.bmj.com/content/early/2017/04/26/bjsports-2017-097506S>
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Child SCAT5[®]

SPORT CONCUSSION ASSESSMENT TOOL
FOR CHILDREN AGES 5 TO 12 YEARS
FOR USE BY MEDICAL PROFESSIONALS ONLY

supported by



FIFA[®]



FEI

Patient details

Name: _____

DOB: _____

Address: _____

ID number: _____

Examiner: _____

Date of Injury: _____ Time: _____

WHAT IS THE CHILD SCAT5?

The Child SCAT5 is a standardized tool for evaluating concussions designed for use by physicians and licensed healthcare professionals¹.

If you are not a physician or licensed healthcare professional, please use the Concussion Recognition Tool 5 (CRT5). The Child SCAT5 is to be used for evaluating Children aged 5 to 12 years. For athletes aged 13 years and older, please use the SCAT5.

Preseason Child SCAT5 baseline testing can be useful for interpreting post-injury test scores, but not required for that purpose. Detailed instructions for use of the Child SCAT5 are provided on page 7. Please read through these instructions carefully before testing the athlete. Brief verbal instructions for each test are given in italics. The only equipment required for the tester is a watch or timer.

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Recognise and Remove

A head impact by either a direct blow or indirect transmission of force can be associated with a serious and potentially fatal brain injury. If there are significant concerns, including any of the red flags listed in Box 1, then activation of emergency procedures and urgent transport to the nearest hospital should be arranged.

Key points

- Any athlete with suspected concussion should be REMOVED FROM PLAY, medically assessed and monitored for deterioration. No athlete diagnosed with concussion should be returned to play on the day of injury.
- If the child is suspected of having a concussion and medical personnel are not immediately available, the child should be referred to a medical facility for urgent assessment.
- Concussion signs and symptoms evolve over time and it is important to consider repeat evaluation in the assessment of concussion.
- The diagnosis of a concussion is a clinical judgment, made by a medical professional. The Child SCAT5 should NOT be used by itself to make, or exclude, the diagnosis of concussion. An athlete may have a concussion even if their Child SCAT5 is "normal".

Remember:

- The basic principles of first aid (danger, response, airway, breathing, circulation) should be followed.
- Do not attempt to move the athlete (other than that required for airway management) unless trained to do so.
- Assessment for a spinal cord injury is a critical part of the initial on-field assessment.
- Do not remove a helmet or any other equipment unless trained to do so safely.

1

IMMEDIATE OR ON-FIELD ASSESSMENT

The following elements should be assessed for all athletes who are suspected of having a concussion prior to proceeding to the neurocognitive assessment and ideally should be done on-field after the first first aid / emergency care priorities are completed.

If any of the "Red Flags" or observable signs are noted after a direct or indirect blow to the head, the athlete should be immediately and safely removed from participation and evaluated by a physician or licensed healthcare professional.

Consideration of transportation to a medical facility should be at the discretion of the physician or licensed healthcare professional.

The GCS is important as a standard measure for all patients and can be done serially if necessary in the event of deterioration in conscious state. The cervical spine exam is a critical step of the immediate assessment, however, it does not need to be done serially.

STEP 1: RED FLAGS

RED FLAGS:

- Neck pain or tenderness
- Double vision
- Weakness or tingling/burning in arms or legs
- Severe or increasing headache
- Seizure or convulsion
- Loss of consciousness
- Deteriorating conscious state
- Vomiting
- Increasingly restless, agitated or combative

STEP 2: OBSERVABLE SIGNS

Witnessed Observed on Video

Lying motionless on the playing surface	Y	N
Balance / gait difficulties / motor incoordination: stumbling, slow / laboured movements	Y	N
Disorientation or confusion, or an inability to respond appropriately to questions	Y	N
Blank or vacant look	Y	N
Facial injury after head trauma	Y	N

STEP 3: EXAMINATION

GLASGOW COMA SCALE (GCS)²

Time of assessment			
Date of assessment			

Best eye response (E)

No eye opening	1	1	1
Eye opening in response to pain	2	2	2
Eye opening to speech	3	3	3
Eyes opening spontaneously	4	4	4

Best verbal response (V)

No verbal response	1	1	1
--------------------	---	---	---

Name: _____
 DOB: _____
 Address: _____
 ID number: _____
 Examiner: _____
 Date: _____

Incomprehensible sounds	2	2	2
Inappropriate words	3	3	3
Confused	4	4	4
Oriented	5	5	5
Best motor response (M)			
No motor response	1	1	1
Extension to pain	2	2	2
Abnormal flexion to pain	3	3	3
Flexion / Withdrawal to pain	4	4	4
Localizes to pain	5	5	5
Obeys commands	6	6	6
Glasgow Coma score (E + V + M)			

CERVICAL SPINE ASSESSMENT

Does the athlete report that their neck is pain free at rest?	Y	N
If there is NO neck pain at rest , does the athlete have a full range of ACTIVE pain free movement?	Y	N
Is the limb strength and sensation normal?	Y	N

In a patient who is not lucid or fully conscious, a cervical spine injury should be assumed until proven otherwise.

OFFICE OR OFF-FIELD ASSESSMENT STEP 1: ATHLETE BACKGROUND

Please note that the neurocognitive assessment should be done in a distraction-free environment with the athlete in a resting state.

Sport / team / school: _____

Date / time of injury: _____

Years of education completed: _____

Age: _____

Gender: M / F / Other

Dominant hand: left / neither / right

How many diagnosed concussions has the athlete had in the past?: _____

When was the most recent concussion?: _____

How long was the recovery (time to being cleared to play) from the most recent concussion?: _____ (days)

Has the athlete ever been:

Hospitalized for a head injury?

Yes	No
-----	----

Diagnosed / treated for headache disorder or migraines?

Yes	No
-----	----

Diagnosed with a learning disability / dyslexia?

Yes	No
-----	----

Diagnosed with ADD / ADHD?

Yes	No
-----	----

Diagnosed with depression, anxiety or other psychiatric disorder?

Yes	No
-----	----

Current medications? If yes, please list: _____

STEP 2: SYMPTOM EVALUATION

The athlete should be given the symptom form and asked to read this instruction paragraph out loud then complete the symptom scale. For the baseline assessment, the athlete should rate his/her symptoms based on how he/she typically feels and for the post injury assessment the athlete should rate their symptoms at this point in time.

To be done in a resting state

Please Check: Baseline Post-Injury

2

Child Report³

	Not at all/ Never	A little/ Rarely	Somewhat/ Sometimes	A lot/ Often
I have headaches	0	1	2	3
I feel dizzy	0	1	2	3
I feel like the room is spinning	0	1	2	3
I feel like I'm going to faint	0	1	2	3
Things are blurry when I look at them	0	1	2	3
I see double	0	1	2	3
I feel sick to my stomach	0	1	2	3
My neck hurts	0	1	2	3
I get tired a lot	0	1	2	3
I get tired easily	0	1	2	3
I have trouble paying attention	0	1	2	3
I get distracted easily	0	1	2	3
I have a hard time concentrating	0	1	2	3
I have problems remembering what people tell me	0	1	2	3
I have problems following directions	0	1	2	3
I daydream too much	0	1	2	3
I get confused	0	1	2	3
I forget things	0	1	2	3
I have problems finishing things	0	1	2	3
I have trouble figuring things out	0	1	2	3
It's hard for me to learn new things	0	1	2	3
Total number of symptoms:				of 21
Symptom severity score:				of 63
Do the symptoms get worse with physical activity?			Y	N
Do the symptoms get worse with trying to think?			Y	N

Overall rating for child to answer:

	Very bad	Very good
On a scale of 0 to 10 (where 10 is normal), how do you feel now?	0 1 2 3 4 5 6 7 8 9 10	

If not 10, in what way do you feel different?:

Name: _____

DOB: _____

Address: _____

ID number: _____

Examiner: _____

Date: _____

Parent Report

The child:

	Not at all/ Never	A little/ Rarely	Somewhat/ Sometimes	A lot/ Often
has headaches	0	1	2	3
feels dizzy	0	1	2	3
has a feeling that the room is spinning	0	1	2	3
feels faint	0	1	2	3
has blurred vision	0	1	2	3
has double vision	0	1	2	3
experiences nausea	0	1	2	3
has a sore neck	0	1	2	3
gets tired a lot	0	1	2	3
gets tired easily	0	1	2	3
has trouble sustaining attention	0	1	2	3
is easily distracted	0	1	2	3
has difficulty concentrating	0	1	2	3
has problems remembering what he/she is told	0	1	2	3
has difficulty following directions	0	1	2	3
tends to daydream	0	1	2	3
gets confused	0	1	2	3
is forgetful	0	1	2	3
has difficulty completing tasks	0	1	2	3
has poor problem solving skills	0	1	2	3
has problems learning	0	1	2	3
Total number of symptoms:				of 21
Symptom severity score:				of 63
Do the symptoms get worse with physical activity?			Y	N
Do the symptoms get worse with mental activity?			Y	N

Overall rating for parent/teacher/coach/carer to answer

On a scale of 0 to 100% (where 100% is normal), how would you rate the child now?

If not 100%, in what way does the child seem different?

STEP 3: COGNITIVE SCREENING

Standardized Assessment of Concussion - Child Version (SAC-C)⁴

IMMEDIATE MEMORY

The Immediate Memory component can be completed using the traditional 5-word per trial list or optionally using 10-words per trial to minimise any ceiling effect. All 3 trials must be administered irrespective of the number correct on the first trial. Administer at the rate of one word per second.

Please choose EITHER the 5 or 10 word list groups and circle the specific word list chosen for this test.

I am going to test your memory. I will read you a list of words and when I am done, repeat back as many words as you can remember, in any order. For Trials 2 & 3: I am going to repeat the same list again. Repeat back as many words as you can remember in any order, even if you said the word before.

List	Alternate 5 word lists					Score (of 5)		
						Trial 1	Trial 2	Trial 3
A	Finger	Penny	Blanket	Lemon	Insect			
B	Candle	Paper	Sugar	Sandwich	Wagon			
C	Baby	Monkey	Perfume	Sunset	Iron			
D	Elbow	Apple	Carpet	Saddle	Bubble			
E	Jacket	Arrow	Pepper	Cotton	Movie			
F	Dollar	Honey	Mirror	Saddle	Anchor			
Immediate Memory Score						of 15		
Time that last trial was completed								

List	Alternate 10 word lists					Score (of 10)		
						Trial 1	Trial 2	Trial 3
G	Finger	Penny	Blanket	Lemon	Insect			
	Candle	Paper	Sugar	Sandwich	Wagon			
H	Baby	Monkey	Perfume	Sunset	Iron			
	Elbow	Apple	Carpet	Saddle	Bubble			
I	Jacket	Arrow	Pepper	Cotton	Movie			
	Dollar	Honey	Mirror	Saddle	Anchor			
Immediate Memory Score						of 30		
Time that last trial was completed								

Name: _____
 DOB: _____
 Address: _____
 ID number: _____
 Examiner: _____
 Date: _____

CONCENTRATION

DIGITS BACKWARDS

Please circle the Digit list chosen (A, B, C, D, E, F). Administer at the rate of one digit per second reading DOWN the selected column.

I am going to read a string of numbers and when I am done, you repeat them back to me in reverse order of how I read them to you. For example, if I say 7-1-9, you would say 9-1-7.

Concentration Number Lists (circle one)					
List A	List B	List C			
5-2	4-1	4-9	Y	N	0
4-1	9-4	6-2	Y	N	1
4-9-3	5-2-6	1-4-2	Y	N	0
6-2-9	4-1-5	6-5-8	Y	N	1
3-8-1-4	1-7-9-5	6-8-3-1	Y	N	0
3-2-7-9	4-9-6-8	3-4-8-1	Y	N	1
6-2-9-7-1	4-8-5-2-7	4-9-1-5-3	Y	N	0
1-5-2-8-6	6-1-8-4-3	6-8-2-5-1	Y	N	1
7-1-8-4-6-2	8-3-1-9-6-4	3-7-6-5-1-9	Y	N	0
5-3-9-1-4-8	7-2-4-8-5-6	9-2-6-5-1-4	Y	N	1
List D	List E	List F			
2-7	9-2	7-8	Y	N	0
5-9	6-1	5-1	Y	N	1
7-8-2	3-8-2	2-7-1	Y	N	0
9-2-6	5-1-8	4-7-9	Y	N	1
4-1-8-3	2-7-9-3	1-6-8-3	Y	N	0
9-7-2-3	2-1-6-9-	3-9-2-4	Y	N	1
1-7-9-2-6	4-1-8-6-9	2-4-7-5-8	Y	N	0
4-1-7-5-2	9-4-1-7-5	8-3-9-6-4	Y	N	1
2-6-4-8-1-7	6-9-7-3-8-2	5-8-6-2-4-9	Y	N	0
8-4-1-9-3-5	4-2-7-3-9-8	3-1-7-8-2-6	Y	N	1
Digits Score:					of 5

DAYS IN REVERSE ORDER

Now tell me the days of the week in reverse order. Start with the last day and go backward. So you'll say Sunday, Saturday. Go ahead.

Sunday - Saturday - Friday - Thursday - Wednesday - Tuesday - Monday	0	1
Days Score	of 1	
Concentration Total Score (Digits + Days)	of 6	

4

STEP 4: NEUROLOGICAL SCREEN

See the instruction sheet (page 7) for details of test administration and scoring of the tests.

Can the patient read aloud (e.g. symptom check-list) and follow instructions without difficulty?	Y	N
Does the patient have a full range of pain-free PASSIVE cervical spine movement?	Y	N
Without moving their head or neck, can the patient look side-to-side and up-and-down without double vision?	Y	N
Can the patient perform the finger nose coordination test normally?	Y	N
Can the patient perform tandem gait normally?	Y	N

BALANCE EXAMINATION

Modified Balance Error Scoring System (BESS) testing⁵

Which foot was tested Left (i.e. which is the non-dominant foot) Right

Testing surface (hard floor, field, etc.) _____

Footwear (shoes, barefoot, braces, tape, etc.) _____

Condition	Errors
Double leg stance	_____ of 10
Single leg stance (non-dominant foot, 10-12 y/o only)	_____ of 10
Tandem stance (non-dominant foot at back)	_____ of 10
Total Errors	5-9 y/o _____ of 20 10-12 y/o _____ of 30

Name: _____

DOB: _____

Address: _____

ID number: _____

Examiner: _____

Date: _____

5

STEP 5: DELAYED RECALL:

The delayed recall should be performed after 5 minutes have elapsed since the end of the Immediate Recall section. Score 1 pt. for each correct response.

Do you remember that list of words I read a few times earlier? Tell me as many words from the list as you can remember in any order.

Time Started _____

Please record each word correctly recalled. Total score equals number of words recalled.

Total number of words recalled accurately: _____ of 5 or _____ of 10

6

STEP 6: DECISION

Domain	Date & time of assessment:		
Symptom number Child report (of 21) Parent report (of 21)			
Symptom severity score Child report (of 63) Parent report (of 63)			
Immediate memory	_____ of 15 _____ of 30	_____ of 15 _____ of 30	_____ of 15 _____ of 30
Concentration (of 6)			
Neuro exam	Normal Abnormal	Normal Abnormal	Normal Abnormal
Balance errors (5-9 y/o of 20) (10-12 y/o of 30)			
Delayed Recall	_____ of 5 _____ of 10	_____ of 5 _____ of 10	_____ of 5 _____ of 10

Date and time of injury: _____

If the athlete is known to you prior to their injury, are they different from their usual self?

Yes No Unsure Not Applicable

(If different, describe why in the clinical notes section)

Concussion Diagnosed?

Yes No Unsure Not Applicable

If re-testing, has the athlete improved?

Yes No Unsure Not Applicable

I am a physician or licensed healthcare professional and I have personally administered or supervised the administration of this Child SCAT5.

Signature: _____

Name: _____

Title: _____

Registration number (if applicable): _____

Date: _____

SCORING ON THE CHILD SCAT5 SHOULD NOT BE USED AS A STAND-ALONE METHOD TO DIAGNOSE CONCUSSION, MEASURE RECOVERY OR MAKE DECISIONS ABOUT AN ATHLETE'S READINESS TO RETURN TO COMPETITION AFTER CONCUSSION.



For the Neurological Screen (page 5), if the child cannot read, ask him/her to describe what they see in this picture.

Name: _____
 DOB: _____
 Address: _____
 ID number: _____
 Examiner: _____
 Date: _____

CLINICAL NOTES:



Concussion injury advice for the child and parents/caregivers

(To be given to the person monitoring the concussed child)

This child has had an injury to the head and needs to be carefully watched for the next 24 hours by a responsible adult.

If you notice any change in behavior, vomiting, dizziness, worsening headache, double vision or excessive drowsiness, please call an ambulance to take the child to hospital immediately.

Other important points:

Following concussion, the child should rest for at least 24 hours.

- The child should not use a computer, internet or play video games if these activities make symptoms worse.
- The child should not be given any medications, including pain killers, unless prescribed by a medical doctor.
- The child should not go back to school until symptoms are improving.
- The child should not go back to sport or play until a doctor gives permission.

Clinic phone number: _____

Patient's name: _____

Date / time of injury: _____

Date / time of medical review: _____

Healthcare Provider: _____

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Contact details or stamp

INSTRUCTIONS

Words in *Italics* throughout the Child SCAT5 are the instructions given to the athlete by the clinician

Symptom Scale

In situations where the symptom scale is being completed after exercise, it should still be done in a resting state, at least 10 minutes post exercise.

At Baseline	On the day of injury	On all subsequent days
<ul style="list-style-type: none"> The child is to complete the Child Report, according to how he/she feels today, and The parent/carer is to complete the Parent Report according to how the child has been over the previous week. 	<ul style="list-style-type: none"> The child is to complete the Child Report, according to how he/she feels now. If the parent is present, and has had time to assess the child on the day of injury, the parent completes the Parent Report according to how the child appears now. 	<ul style="list-style-type: none"> The child is to complete the Child Report, according to how he/she feels today, and The parent/carer is to complete the Parent Report according to how the child has been over the previous 24 hours.

For Total number of symptoms, maximum possible is 21

For Symptom severity score, add all scores in table, maximum possible is 21 x 3 = 63

Standardized Assessment of Concussion Child Version (SAC-C)

Immediate Memory

Choose one of the 5-word lists. Then perform 3 trials of immediate memory using this list.

Complete all 3 trials regardless of score on previous trials.

"I am going to test your memory. I will read you a list of words and when I am done, repeat back as many words as you can remember, in any order." The words must be read at a rate of one word per second.

OPTION: The literature suggests that the Immediate Memory has a notable ceiling effect when a 5-word list is used. (In younger children, use the 5-word list). In settings where this ceiling is prominent the examiner may wish to make the task more difficult by incorporating two 5-word groups for a total of 10 words per trial. In this case the maximum score per trial is 10 with a total trial maximum of 30.

Trials 2 & 3 MUST be completed regardless of score on trial 1 & 2.

Trials 2 & 3: *"I am going to repeat the same list again. Repeat back as many words as you can remember in any order, even if you said the word before."*

Score 1 pt. for each correct response. Total score equals sum across all 3 trials. Do NOT inform the athlete that delayed recall will be tested.

Concentration

Digits backward

Choose one column only, from List A, B, C, D, E or F, and administer those digits as follows:

"I am going to read you some numbers and when I am done, you say them back to me backwards, in reverse order of how I read them to you. For example, if I say 7-1, you would say 1-7."

If correct, circle "Y" for correct and go to next string length. If incorrect, circle "N" for the first string length and read trial 2 in the same string length. One point possible for each string length. Stop after incorrect on both trials (2 N's) in a string length. The digits should be read at the rate of one per second.

Days of the week in reverse order

"Now tell me the days of the week in reverse order. Start with Sunday and go backward. So you'll say Sunday, Saturday ... Go ahead"

1 pt. for entire sequence correct

Delayed Recall

The delayed recall should be performed after at least 5 minutes have elapsed since the end of the Immediate Recall section.

"Do you remember that list of words I read a few times earlier? Tell me as many words from the list as you can remember in any order."

Circle each word correctly recalled. Total score equals number of words recalled.

Neurological Screen

Reading

The child is asked to read a paragraph of text from the instructions in the Child SCAT5. For children who can not read, they are asked to describe what they see in a photograph or picture, such as that on page 6 of the Child SCAT5.

Modified Balance Error Scoring System (mBESS)⁵ testing

These instructions are to be read by the person administering the Child SCAT5, and each balance task should be demonstrated to the child. The child should then be asked to copy what the examiner demonstrated.

Each of 20-second trial/stance is scored by counting the number of errors. The This balance testing is based on a modified version of the Balance Error Scoring System (BESS)⁵.

A stopwatch or watch with a second hand is required for this testing.

"I am now going to test your balance. Please take your shoes off, roll up your pants above your ankle (if applicable), and remove any ankle taping (if applicable). This test will consist of two different parts."

OPTION: For further assessment, the same 3 stances can be performed on a surface of medium density foam (e.g., approximately 50cm x 40cm x 6cm).

(a) Double leg stance:

The first stance is standing with the feet together with hands on hips and with eyes closed. The child should try to maintain stability in that position for 20 seconds. You should inform the child that you will be counting the number of times the child moves out of this position. You should start timing when the child is set and the eyes are closed.

(b) Tandem stance:

Instruct or show the child how to stand heel-to-toe with the non-dominant foot in the back. Weight should be evenly distributed across both feet. Again, the child should try to maintain stability for 20 seconds with hands on hips and eyes closed. You should inform the child that you will be counting the number of times the child moves out of this position. If the child stumbles out of this position, instruct him/her to open the eyes and return to the start position and continue balancing. You should start timing when the child is set and the eyes are closed.

(c) Single leg stance (10-12 year olds only):

"If you were to kick a ball, which foot would you use? [This will be the dominant foot] Now stand on your other foot. You should bend your other leg and hold it up (show the child). Again, try to stay in that position for 20 seconds with your hands on your hips and your eyes closed. I will be counting the number of times you move out of this position. If you move out of this position, open your eyes and return to the start position and keep balancing. I will start timing when you are set and have closed your eyes."

Balance testing – types of errors

- | | | |
|---------------------------------|---|---|
| 1. Hands lifted off iliac crest | 3. Step, stumble, or fall | 5. Lifting forefoot or heel |
| 2. Opening eyes | 4. Moving hip into > 30 degrees abduction | 6. Remaining out of test position > 5 sec |

Each of the 20-second trials is scored by counting the errors, or deviations from the proper stance, accumulated by the child. The examiner will begin counting errors only after the child has assumed the proper start position. The modified BESS is calculated by adding one error point for each error during the 20-second tests. The maximum total number of errors for any single condition is 10. If a child commits multiple errors simultaneously, only one error is recorded but the child should quickly return to the testing position, and counting should resume once subject is set. Children who are unable to maintain the testing procedure for a minimum of five seconds at the start are assigned the highest possible score, ten, for that testing condition.

Tandem Gait

Instruction for the examiner - Demonstrate the following to the child:

The child is instructed to stand with their feet together behind a starting line (the test is best done with footwear removed). Then, they walk in a forward direction as quickly and as accurately as possible along a 38mm wide (sports tape), 3 metre line with an alternate foot heel-to-toe gait ensuring that they approximate their heel and toe on each step. Once they cross the end of the 3m line, they turn 180 degrees and return to the starting point using the same gait. Children fail the test if they step off the line, have a separation between their heel and toe, or if they touch or grab the examiner or an object.

Finger to Nose

The tester should demonstrate it to the child.

"I am going to test your coordination now. Please sit comfortably on the chair with your eyes open and your arm (either right or left) outstretched (shoulder flexed to 90 degrees and elbow and fingers extended). When I give a start signal, I would like you to perform five successive finger to nose repetitions using your index finger to touch the tip of the nose as quickly and as accurately as possible."

Scoring: 5 correct repetitions in < 4 seconds = 1

Note for testers: Children fail the test if they do not touch their nose, do not fully extend their elbow or do not perform five repetitions.

References

- McCrory et al. Consensus Statement On Concussion In Sport – The 5th International Conference On Concussion In Sport Held In Berlin, October 2016. British Journal of Sports Medicine 2017 (available at www.bjsm.bmj.com)
- Jennett, B., Bond, M. Assessment of outcome after severe brain damage: a practical scale. Lancet 1975; i: 480-484
- Ayr, L.K., Yeates, K.O., Taylor, H.G., Brown, M. Dimensions of postconcussive symptoms in children with mild traumatic brain injuries. Journal of the International Neuropsychological Society. 2009; 15:19-30
- McCrea M. Standardized mental status testing of acute concussion. Clinical Journal of Sports Medicine. 2001; 11: 176-181
- Guskiewicz KM. Assessment of postural stability following sport-related concussion. Current Sports Medicine Reports. 2003; 2: 24-30

CONCUSSION INFORMATION

If you think you or a teammate has a concussion, tell your coach/trainer/parent right away so that you can be taken out of the game. You or your teammate should be seen by a doctor as soon as possible. YOU OR YOUR TEAMMATE SHOULD NOT GO BACK TO PLAY/SPORT THAT DAY.

Signs to watch for

Problems can happen over the first 24-48 hours. You or your teammate should not be left alone and must go to a hospital right away if any of the following happens:

- New headache, or headache gets worse
- Neck pain that gets worse
- Becomes sleepy/drowsy or can't be woken up
- Cannot recognise people or places
- Feeling sick to your stomach or vomiting
- Acting weird/strange, seems/feels confused, or is irritable
- Has any seizures (arms and/or legs jerk uncontrollably)
- Has weakness, numbness or tingling (arms, legs or face)
- Is unsteady walking or standing
- Talking is slurred
- Cannot understand what someone is saying or directions

Consult your physician or licensed healthcare professional after a suspected concussion. Remember, it is better to be safe.

Graduated Return to Sport Strategy

After a concussion, the child should rest physically and mentally for a few days to allow symptoms to get better. In most cases, after a few days of rest, they can gradually increase their daily activity level as long as symptoms don't get worse. Once they are able to do their usual daily activities without symptoms, the child should gradually increase exercise in steps, guided by the healthcare professional (see below).

The athlete should not return to play/sport the day of injury.

NOTE: An initial period of a few days of both cognitive ("thinking") and physical rest is recommended before beginning the Return to Sport progression.

Exercise step	Functional exercise at each step	Goal of each step
1. Symptom-limited activity	Daily activities that do not provoke symptoms.	Gradual reintroduction of work/school activities.
2. Light aerobic exercise	Walking or stationary cycling at slow to medium pace. No resistance training.	Increase heart rate.
3. Sport-specific exercise	Running or skating drills. No head impact activities.	Add movement.
4. Non-contact training drills	Harder training drills, e.g., passing drills. May start progressive resistance training.	Exercise, coordination, and increased thinking.
5. Full contact practice	Following medical clearance, participate in normal training activities.	Restore confidence and assess functional skills by coaching staff.
6. Return to play/sport	Normal game play.	

There should be at least 24 hours (or longer) for each step of the progression. If any symptoms worsen while exercising, the athlete should go back to the previous step. Resistance training should be added only in the later stages (Stage 3 or 4 at the earliest). The athlete should not return to sport until the concussion symptoms have gone, they have successfully returned to full school/learning activities, and the healthcare professional has given the child written permission to return to sport.

If the child has symptoms for more than a month, they should ask to be referred to a healthcare professional who is an expert in the management of concussion.

Graduated Return to School Strategy

Concussion may affect the ability to learn at school. The child may need to miss a few days of school after a concussion, but the child's doctor should help them get back to school after a few days. When going back to school, some children may need to go back gradually and may need to have some changes made to their schedule so that concussion symptoms don't get a lot worse. If a particular activity makes symptoms a lot worse, then the child should stop that activity and rest until symptoms get better. To make sure that the child can get back to school without problems, it is important that the health care provider, parents/caregivers and teachers talk to each other so that everyone knows what the plan is for the child to go back to school.

Note: If mental activity does not cause any symptoms, the child may be able to return to school part-time without doing school activities at home first.

Mental Activity	Activity at each step	Goal of each step
1. Daily activities that do not give the child symptoms	Typical activities that the child does during the day as long as they do not increase symptoms (e.g. reading, texting, screen time). Start with 5-15 minutes at a time and gradually build up.	Gradual return to typical activities.
2. School activities	Homework, reading or other cognitive activities outside of the classroom.	Increase tolerance to cognitive work.
3. Return to school part-time	Gradual introduction of school-work. May need to start with a partial school day or with increased breaks during the day.	Increase academic activities.
4. Return to school full-time	Gradually progress school activities until a full day can be tolerated.	Return to full academic activities and catch up on missed work.

If the child continues to have symptoms with mental activity, some other things that can be done to help with return to school may include:

- Starting school later, only going for half days, or going only to certain classes
- Taking lots of breaks during class, homework, tests
- More time to finish assignments/tests
- No more than one exam/day
- Quiet room to finish assignments/tests
- Shorter assignments
- Not going to noisy areas like the cafeteria, assembly halls, sporting events, music class, shop class, etc.
- Repetition/memory cues
- Use of a student helper/tutor
- Reassurance from teachers that the child will be supported while getting better

The child should not go back to sports until they are back to school/learning, without symptoms getting significantly worse and no longer needing any changes to their schedule.



Sport concussion assessment tool for childrens ages 5 to 12 years

Br J Sports Med published online April 26, 2017

Updated information and services can be found at:
<http://bjsm.bmj.com/content/early/2017/04/28/bjsports-2017-097492c/hildscat5.citation>

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