

CONCUSSION GUIDELINES AND MANAGEMENT – Updated 7-8-20

Student-athlete refers to a student that is participating in athletics or any extracurricular activity. Concussions are serious injuries and have recently been labeled TBIs or traumatic brain injuries. A concussion is the result of a complex physiological process induced by the trauma of the biomechanical forces. Concussions are no longer categorized as “dings”, “bell ringers”, or as mild or severe

Concussions are cumulative injuries. This means that once a student-athlete sustains a concussion they are more likely to sustain another one. Often it takes less force to cause successive concussions.

Unrecognized concussions or student-athletes who have not fully recovered and incur another concussion run the additional risk of developing Second Impact Syndrome (SIS). SIS is a catastrophic complication that occurs rarely but is devastating. When SIS occurs the brain swells rapidly after a person suffers a second concussion before symptoms from an earlier one have subsided. This second blow to the head may occur days or weeks after an initial concussion and even the mildest blow to the head can lead to SIS. The condition is often fatal or can lead to disablement.

More commonly, concussed student-athletes will often have some difficulties with cognitive tasks such as academics and homework for variable amounts of time. Concussed student-athletes often exhibit difficulties with concentration and comprehension. Fortunately, these difficulties are often short lived and are transient symptoms. However, in some concussed student-athletes, these symptoms can linger for weeks and even months and have adverse effects on personality and learning.

Medical research is still trying to understand exactly what is happening in the brain after a concussion. The current research indicates that there is a complex physiological process induced by the trauma of the biomechanical forces. How long these physiological processes last have not been fully understood. This is one of the reasons why recovery from concussion can be variable and sometimes unpredictable. Concussions are a physiologic injury and not just an anatomical injury. Brain imaging (CT or MRI scans) will not show signs or symptoms, but on rare occasion will show brain bleed or swelling.

Because of the catastrophic potential for Secondary Impact Syndrome (SIS), the potential for cognitive dysfunction that can be variable and persistent, and the continued search for answers in the medical world in regards to concussions the following guidelines and rule changes have occurred to help protect concussed athletes.

Revised in April 2019, the NFHS rule book states:

Any athlete who exhibits signs, symptoms, or behaviors consistent with a concussion (such as loss of consciousness, headache, dizziness, confusion, or balance problems) shall be immediately removed from the contest and shall not return to play until cleared by an appropriate health care professional.

The 2019-20 NFHS rule book suggested management of concussions state:

No athlete should return to play or practice on the same day as a concussion.

Any athlete suspected of having a concussion should be evaluated by an appropriate healthcare professional that day.

Any athlete with a concussion should be medically cleared by an appropriate healthcare professional prior to resuming participation in any practice or competition.

After medical clearance, return to play should follow a stepwise protocol with provisions for delayed return to play based upon return of any signs or symptoms.

To simplify:

- When in doubt, hold them out
- Student-athletes that are held out of a practice or competition because they are suspected to have sustained a concussion should be referred to a qualified medical physician or to the Certified Athletic Trainer.

In addition to the NFHS rules and management suggestions the Bixby Athletic Training Dept will also use the following policies:

1. Any direct or indirect blow to the head must be evaluated by a qualified medical professional. If deemed necessary, the student-athlete will be stabilized and transported or referred on for further evaluation.
2. In an acute concussion scenario, no documentation from an outside medical source will be accepted in clearing a student-athlete to return to play, on the same day. The Bixby Certified Athletic Trainer(s) will be the primary personnel regarding concussion assessment, management, and return to activity decisions. If our certified athletic trainers are not present, the host school's certified athletic trainer will be responsible for concussion management.

At the beginning of each academic school year each student-athlete along with their parent / guardian will be required to fill out and return a concussion awareness form, which will be kept on file.

Below are guidelines that will be followed when a student-athlete has been diagnosed with a concussion:

Cognitive Rest

If necessary, the student-athlete may need to stay home from school. Activities requiring concentration and attention may worsen symptoms and delay recovery. Additionally, the student-athlete should refrain from use of computers, texting, extended periods of TV viewing, or reading. This period of cognitive rest will be variable and based upon the individual's response to the rest time and their improvement in symptoms.

Physician Referral

All student-athletes sustaining a head injury or concussion will be evaluated by the Certified Athletic Trainer and or a licensed physician trained in head injury management (per SB1700). The student-athlete should never be denied access to a qualified medical physician. All student-athletes will need written consent before returning to participation.

Athletic Trainer Management

The Athletic Trainer, when on site will assess the injury, or provide guidance to the coach when they are not available for immediate evaluation. At the time of injury, the athletic trainer will determine if immediate care is necessary whether referral or transport to our team physician, emergency room or student-athlete's family physician.

During the initial evaluation, the certified athletic trainer or licensed healthcare provider will use a serial evaluation of techniques and assessments which can include SAC testing, SCAT testing, BESS testing, SWAY testing and/or ImPACT testing.

After the initial evaluation, the student-athlete's parents / guardian will be contacted to review the injury and give follow up care instructions in written and verbal format.

During the recovery process the certified athletic trainer will continue to provide coordinated care with physicians, coaches, parents, administrators, and teachers.

The certified athletic trainer or licensed healthcare provider is responsible for administering the initial post-concussion evaluation that will be completed within 48 – 72 hours unless unforeseeable circumstances prevent this test from being completed within the timeframe. Repeat tests will be given at appropriate intervals and is dependent upon clinical presentation. All data acquired during testing will be shared with student-athlete, parents / guardians and physician as deemed necessary.

The certified athletic trainer is responsible for monitoring recovery and conditioning following the outlined guidelines and coordinating appropriate return to play activity progression. The certified athletic trainer will also maintain appropriate documentation regarding assessment and management of the injury.

Coaches shall: **RECOGNIZE, REMOVE, REFER**

At the beginning of each sport season, coaches or activity sponsor should review concussion policies and sign and symptoms of concussions. It is also recommended that each coach go through the National High School Federation's Concussion in Sports – What You Need to Know online course.

Recognize concussion

All coaches should become familiar with the signs and symptoms of concussion

Signs (observed by others)	Symptoms (reported by athlete)
Athlete appears dazed or stunned	Headache
Confusion (about assignment, plays, etc.)	Fatigue
Forgets plays	Nausea or vomiting
Unsure about game, score, opponent	Double vision or blurry vision
Moves clumsily (altered coordination)	Sensitive to light or noise
Balance problems	Feels sluggish
Personality change	Feels "foggy"
Responds slowly to questions	Problems concentrating
Forgets events prior to hit	Problems remembering
Forgets events after the hit	
Loss of consciousness (any duration)	

Remove from activity

If a coach suspects the student-athlete has sustained a concussion, the student-athlete should be removed from activity immediately until evaluated by the certified athletic trainer or licensed physician trained in head management. The student-athlete will not be allowed to return to the activity that day. Delayed symptoms can occur where symptoms present themselves after a blow to the head. Coaches need to be mindful of possible delays in symptoms.

Refer the student-athlete for medical evaluation

Coaches should report all head injuries to the certified athletic trainer or licensed healthcare provider as soon as possible for assessment, management and coordination of home and follow-up care. Coaches should seek assistance from the host site certified athletic trainer if at an away contest. If there is no certified athletic trainer available, the coach is responsible for notifying the student-athlete's parents of the injury.

- Contact the parents to inform them of the injury and make arrangements for them to pick the student-athlete up at school.
- Contact the athletic certified trainer with the student-athlete's name and parent's phone number, so that follow-up can be initiated.
- Remind the student-athlete to report directly to the athletic training room on the day they return to school.
- The coach, activity sponsor or certified athletic trainer should insure that the student-athlete will be with a responsible individual, who is capable of monitoring the student-athlete and understanding the home care instructions, before allowing the student-athlete to go home. The Coach, activity sponsor, or certified athletic trainer should continue efforts to reach the parent, if first attempts were unsuccessful.

Return -To-Play Progressions

Once a student-athlete is diagnosed to have a concussion, they will immediately be removed from all physical activity including but not limited to practice, games, competitions, and strength and conditioning. Once the student-athlete is symptom free for 24 hours, the certified athletic trainer will initiate the return to play progression. If a student-athlete becomes symptomatic as they progress through the return to play protocol, they will stop the activity for that day, rest at least one day or as many days as needed to return to asymptomatic status, and repeat the step.

Day 1: Light cardio session

Day 2: Moderate cardio session

Day 3: Light practice. Limit any head contact

Day 4: Progress back to normal practice/participation and strength and conditioning activity

Day 5: Full participation

After day 5 is completed successfully with no symptoms returning, the student-athlete will retake the concussion test and progress through final clearance requirements before written clearance is given. The certified athletic trainer for non-athletic students will have the final say on student-athlete's clearance.

Authorization to Return-To-Play

If a student-athlete is suspected of sustaining a concussion/head injury or has sustained a concussion/head injury, only a licensed health care provider may authorize a student athlete to return to play. The Bixby Board of Education has defined a licensed health care provider as follows: M.D.-Medical Doctor / D.O. Doctor of Osteopathy / A.R.N.P.-Advanced Registered Nurse Practitioner /P.A.-Physician's Assistant / L.A.T. –Licensed Athletic Trainer. Once cleared by a certified health care professional the student-athlete must still complete the return to play progression with our certified athletic trainer.

After a student-athlete has suffered a concussion, they should be released back to school with the same level of care as they are released to play. If a student-athlete has not been cleared to return to learn, they are to avoid bright rooms, televisions, videogames, or reading with the goal of achieving a sustainable asymptomatic status. The following return to learn guidelines may also require additional academic accommodations, but these decisions should be determined by a multi-disciplinary team (i.e. Team Physician, Certified Athletic Trainer(s), Principal, Counselor, Teachers, Parents, etc.) on a case by case basis.

Return-To-Learn Progressions

Step 1. Student-athlete at Home and total brain rest

- a. No mental exertion. (No computer, texting, video games or homework)
- b. Stay at home

Progress to step 2 when student-athlete can handle up to 30 minutes without worsening symptoms. Parents indicate student is ready to return to school.

Step 2. Student-athlete returns to school part time with maximum accommodations

- a. Provide quiet place for scheduled mental rest
- b. No significant classroom or standardized testing
- c. Modify rather than postpone academics
- d. Provide extra time, help and modified assignments

Progress to step 3 when student-athlete can handle 30 minutes of mental exertion without worsening symptoms.

Step 3. Student-athlete participates in school with partial accommodations

- a. No standardized testing
- b. No classroom testing
- c. Moderate decrease of extra time, help and modification of assignments

Progress to Step 4 when student-athlete can handle 60 minutes of mental exertion

Step 4. Student-athlete participates in school full time with minimal accommodations

- a. No standardized testing, or classroom testing
- b. Continue decrease of extra time help and modification of assignments.

Progress to Step 5 when student-athlete does not need extra time or modification of assignments

Step 5. Student-athlete participates in school full time with no restrictions

When symptoms are prolonged academic support may be required. Parents may request a 504 meeting to plan and coordinate. Progression is individually based, and all recoveries/symptoms can be different. Students may start at any step as symptoms dictate and remain at that step if needed. Return to previous step if symptoms worsen.