



## **Bentonville Public Schools Concussion Policy**

### **Introduction:**

The Centers for Disease Control (CDC) estimates that there are approximately 2.2 million cases of mild traumatic brain injury (MTBI) or concussion annually in the United States, 70% of those injuries result from colliding with another athlete during sports. The Sports Concussion Institute estimates that 10 percent of athletes in contact sports suffer a concussion during a season. Recent statistics show that there are an estimated 300,000 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 concussion and second impact syndrome to athletes. These two problems can have a long lasting, and even terminal effects on the individual. The Bentonville Sports Medicine Staff and Athletic Administration are dedicated to providing the best care to your student-athlete. Therefore, we have created this standard method of managing concussion for Bentonville student – athletes, the following guidelines are intended to serve as a written protocol for concussion management

### **Definitions:**

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

Second Impact Syndrome – Second impact syndrome (SIS) refers to catastrophic events which may occur when a second concussion occurs while the athlete is still symptomatic and healing from a previous concussion. The second injury may occur within days or weeks following the first injury. Loss of consciousness is not required. The second impact is more likely to cause brain swelling with other widespread damage to the brain. This can be fatal. Most often SIS occurs when an athlete returns to activity without being symptom free from the previous concussion.

Post-Concussion Syndrome – is the persistence of concussion symptoms beyond the normal course of recovery. In cases where symptoms last longer than one or two months, doctors may diagnose Post-Concussion Syndrome (PCS). It is believed to occur most commonly in patients with a history of multiple concussions.

### **Multiple concussions:**

Once a student-athlete sustains a concussion, no matter the severity, it can make the student-athlete 3 to 6 times more susceptible to another concussion. There has not been enough research on effects on multiple concussions in the same sport season or even over a prolonged period of time, so it is an aspect that medical professionals don't understand well. There is lacking research evidence on effects, there is no mandated protocol for multiple concussions in a short period of time. However, the National Athletic Trainers' Association Position Statement: Management of Sport Concussion advises Certified Athletic Trainers to adopt a more conservative return to play strategy with student-athletes with a concussion history. That is why we have created additional return to play guidelines for student-athletes that suffer multiple concussions within 90 days of diagnosis or clearance from a concussion.

## Evaluation for Concussion/MTBI

1. At time of injury, administer one of these assessment tests:
2. Graded Symptom Checklist (GSC) in CareSport or SWAY
3. Sports Concussion Assessment Tool (SWAY, VOMS, SCAT)
4. Sideline Function and Visual Assessments
5. On-field Cognitive Testing (if applicable)
6. Observe athlete, during the remainder of the competition or practice, every 30 minutes and re-evaluate
7. Student-athlete does not return to game or practice on the same day, regardless if symptoms have resolved.
8. Hospital referral (if necessary)
9. Student-athlete is re-evaluated 24-48 hours after injury with Sports Concussion Assessment Tools and a GSC.

## Concussion Management:

1. **Acute Concussion (no known history):**
  - a. Notify parents and coaches of concussion diagnosis.
  - b. Academic modifications put into play by communicating with BHS administration. Attendance accommodations will be granted on a case by case basis.
  - c. Ask parents and teachers to contact athletic trainer with concerns or observations of abnormal student behavior.
  - d. Student-athlete will be encouraged to limit time spent on electronics (i.e. cell phone, television, and video games)
  - e. Prescribed medication should continue to be taken as directed by the physician.
  - f. Student-athletes will be encouraged to hydrate with water and electrolyte drinks, as well as maintain a healthy diet.
  - g. If the student-athletes symptoms are not improving or worsening after 10 - 14 days post injury, we will encourage referral to an Orthopedic Physician specialized in Sports Concussions and/or Neurologist/Neuropsychologist.
2. **Concussion history (within 90 days of last concussion):**
  - a. Notify parents and coaches of concussion diagnosis.
  - b. Encourage parents to make an appointment with an Orthopedic Physician specialized in Sports Concussions and/or Neurologist/Neuropsychologist.
  - c. Academic modifications put into play by communicating with BHS administration. Attendance accommodations will be granted on a case by case basis.
  - d. Ask parents and teachers to contact athletic trainer with concerns or observations of abnormal student behavior.
  - e. Student-athlete will be encouraged to limit time spent on electronics (i.e. cell phone, television, and video games)
  - f. Prescribed medication should continue to be taken as directed by the physician.
  - g. Student-athletes will be encouraged to hydrate with water and electrolyte drinks, as well as maintain a healthy diet.
  - h. The student-athlete must be asymptomatic before beginning the 5 day return to play protocol. Every concussion and every athlete is different, therefore, it is up to the certified athletic trainer and/or physician to clear the student-athlete to participate in team workouts/conditioning during concussion recovery.

## Return to Play (RTP) Guidelines

1. Once a student-athlete is asymptomatic (without being medicated) and scores of the Sport Concussion Assessment Tools are normal and within normal limits of baseline, they will move into completing the return to play protocol regulated by the Arkansas Activities Association.
2. Certified Athletic Trainer and/or physician will oversee the RTP protocol and clearance for return to activities.

Rehabilitation Stage	Example Activity	Notes/restrictions
Day 1: Light aerobic exercise	Bike 15 minutes resistance level 12	No contact/participation in practice or game
Day 2: Light-moderate aerobic exercise	Bike 15 minutes resistance level 15	No contact/participation in practice or game
Day 3: Moderate aerobic exercise	Bike 20 minutes Resistance level 18 Conditioning allowed with team	No contact/participation in practice drills or game
Day 4: Noncontact training involving other, resistance training	Non Contact practice; resistance training/conditioning allowed with team	Nothing live; no scrimmages
Day 5: Unrestricted training; full contact	Full practice/full contact	No game clearance until following day
Day 6: Full return to play	Normal practice/game	Must compete re-baseline testing on SWAY.

\*Certified Athletic Trainers and/or Physicians have the right to modify activity based on the student-athletes respected sports\*

## References:

<https://www.cdc.gov/headsup/basics/index.html>

<https://www.brainline.org/article/repetitive-head-injury-syndrome>

<https://concussionfoundation.org/PCS-resources/what-is-PCS>

[https://www.nata.org/sites/default/files/concussion\\_management\\_position\\_statement.pdf](https://www.nata.org/sites/default/files/concussion_management_position_statement.pdf)