

Lake-Lehman Junior/Senior High School

Department of Athletic Training

Sport Concussion Policy and Protocol for Student-Athletes

If a member of the Lake-Lehman High School Department of Athletic Training has a concern that a student-athlete may have sustained a sports concussion due to their participation in athletics, this policy and protocol will be followed.

- **If a student-athlete is suspected to have a concussion he or she WILL NOT be permitted to return to their respective sport on that same day.**
- **The health and well-being of the student-athlete will be the primary consideration throughout the process.**
- **All contact sport (i.e. football, soccer, wrestling, etc) participants are required to take a baseline neuropsychological assessment (ImPACT) every two years.**

Definition of a concussion:

“Sports concussion is defined as a complex pathophysiological process affecting the brain, induced by traumatic biomechanical forces.” (*Concussion in Sports Group, Vienna 2001, Clin J Sports Med;12:6-11, 2002*)

- Concussion may be caused by a direct blow to the head, face, neck, or elsewhere on the body with an impulsive force transmitted to the head.
- Concussion typically results in the rapid onset of short lived impairment of neurological function that resolves spontaneously.
- Concussion may result in neuropathological changes, but the acute clinical symptoms largely reflect a functional disturbance rather than structural injury.
- Concussion results in a graded set of clinical syndromes that may or may not involve loss of consciousness. Resolution of the clinical and cognitive symptoms typically follows a sequential course.
- Concussion is typically associated with grossly normal structural neuroimaging studies.
- Concussion typically takes longer to resolve in student-athletes younger than 18 years of age, as their brains are still developing.

Signs and Symptoms of Concussion:

A sport concussion will be suspected if a Lake-Lehman High School student-athlete presents with one of the following signs, symptoms, or problems in excess of their baseline score, after sustaining direct OR indirect contact to the head. If no baseline test is available, a student-athlete must be symptom free according to the Certified Athletic Trainer’s assessment. **Any student-athlete with signs, symptoms, or problems will be removed from play that day, monitored, and WILL NOT return to play on the day of injury.**

The following is a list of possible signs, symptoms, or problems of a concussion. This list is not all inclusive, and other signs, symptoms or problems may be present that are not listed.

- Headache
- Nervous / Anxious
- “Pressure in the head”
- Trouble falling asleep
- Neck pain
- “Just wants to fall asleep”
- Balance problems or dizziness
- Feeling “in a fog”
- Slurred speech
- Vision problems
- More emotional than usual / crying
- Hearing problems / ringing in ears
- Irritability
- Feeling “dinged” or “dazed”
- Sadness
- Confusion
- Sensitivity to light and noise
- Fatigue
- Drowsiness
- Nausea or vomiting
- Convulsions or seizures
- Loss of consciousness
- “Don’t feel right”
- Difficulty concentrating

Referral Guidelines:

Once a student-athlete has presented with any of the above signs, symptoms, or problems he or she will be monitored on a continuous basis until one of the following scenarios is determined:

1. Immediate referral to emergency room:

Any student-athlete with any of the following signs, symptoms, or problems will be referred to the emergency room immediately via EMS upon on-field assessment:

- Deterioration of neurological function
- Decreasing level of consciousness
- Irregular respirations
- Irregular pulse
- Unequal, dilated, or unreactive pupils
- Any signs or symptoms of associated injuries (i.e. spine or skull fracture)
- Mental status changes: lethargy, difficulty maintaining arousal, confusion
- Cranial nerve deficits
- Uncontrollable vomiting
- Seizure activity
- Post-concussion symptoms that worsen while being monitored

2. Release of the student-athlete from supervision of a Certified Athletic Trainer with Take-Home Instructions:

If the student-athlete has shown an improvement in their signs, symptoms or problems by the end of the practice or competition, they will be given Take-Home Instructions (Appendix A). These instructions will also be explained and given to the parent/guardian to insure proper monitoring.

3. Delayed referral (after day of injury):

If a student-athlete that was released from the supervision of a Certified Athletic Trainer and given Take-Home Instructions presents with any of the following signs, symptoms, or problems after the day of injury, he/she will be referred to a physician.

- Any of the findings from section one (“Immediate referral to ER”) that have developed since the initial evaluation
- Post-concussion symptoms worsen or do not improve over time
- Increase in the number of post-concussion symptoms reported
- Post-concussion symptoms begin to interfere with the athlete’s daily activities

Return to Play Assessment:

The Lake-Lehman High School Department of Athletic Training will utilize the online tool ImPACT, Modified SCAT (Sport Concussion Assessment Tool) and BESS (Balance Error Scoring System). The ImPACT is an online neuropsychological assessment, which can pick up subtle differences other tests cannot. The Modified SCAT is a standardized method of evaluating people after concussion in sport and can also be used for patient education. The BESS is a standardized method of evaluating a student-athletes proprioception and balance. The certified athletic trainer will determine appropriate return to play guidelines for each individual case, under the supervision of a team physician from the Noxen Health Clinic. The team physician from the Noxen Health Clinic agrees to allow the certified athletic trainer to evaluate and treat concussions, as deem necessary and according to this policy and protocol.

Return to Play Guidelines:

Once a student-athlete has displayed any of the signs, symptoms, or problems stated above he or she will be removed from practice or competition for the remainder of the day. When the student-athlete is symptom free for 24 hours, he or she will be retested using the ImPACT, Modified SCAT and/or BESS. The student-athlete will not be physically tested until the ImPACT, SCAT and/or BESS have returned to baseline (normal).

Physical Exertion Testing Protocol:

The student-athlete must be symptom free each consecutive day before he or she can progress to the next step in the sequence. The student-athlete will not be returned to full participation until he or she has remained symptom free for at least 24 hours and has passed all exertional testing without experiencing any signs, symptoms or problems.

Step 1: Aerobic exercise – short sprints, sit-ups, push-ups, etc

Step 2: Non-contact drills, sport-specific exercises

Step 3: Controlled contact drills

Step 4: Full contact

* Each sport participant must sign an agreement understanding the risks of sport concussions. This is found on the PIAA Comprehensive Initial Pre-Participation Examination (CIPPE) form

** This policy and protocol will be reviewed on an annual basis, and updated as needed.

Devised: May 2010
Revised: annually

Appendix A: Take-Home Instructions

Any student-athlete who experiences any of the signs, symptoms, or problems of a sports concussion and is not being referred to a physician the day of injury will be given these Take-Home Instructions. The student-athlete must be monitored for possible deterioration as problems could arise over the next 24-48 hours.

The student-athlete should not be left alone and must go to the hospital immediately if any of the following are experienced:

- Headache gets progressively worse
- Can't be woken up
- Can't recognize people or places
- Repeated vomiting
- Experiences numbness in extremities
- Slurred speech
- Experiences changes in breathing / pulse
- Experiences memory / vision deficits
- Experiences seizures
- Becomes very dizzy

***** Remember, it is better to be safe. *****

**** It is better to miss one game, than the whole season. ****

I believe that _____ sustained a concussion on _____. Please follow these important recommendations to make sure he/she recovers.

1. Please remind _____ to follow up with their Certified Athletic Trainer on the next possible day.
2. Please review the items outlined above. If any of these problems develop prior to his/her visit, please go to the hospital immediately. Otherwise, you can follow the instructions outlined below:

It is OK to:

- Let them sleep, but check them every few hours
- Use ice pack on head/neck as needed for comfort
- Eat a light diet
- Return to school
- Go to sleep
- Rest

There is NO need to:

- Check eyes with a flashlight
- Test reflexes
- Stay in bed

Do NOT:

- Drink alcohol
- Do drugs
- Drive
- Take Tylenol
- Exert yourself physically or mentally