West Lincoln-Broadwell Elementary School District #92

Concussion Return Protocol

Basic Facts of a Traumatic Brain Injury (TBI) and Concussion

- Concussions and TBIs are one of the most commonly reported injuries in children and adolescents participating in sports and recreational activities. The Center for Disease Control and Prevention estimates 3,900,00 sport-related and recreational-related concussions occur each year in the United States. The risk of catastrophic injuries or death is significant when a concussion or TBI is not properly evaluated and managed.
- Concussions DO NOT only occur during physical activity or a sporting event (e.g., motor vehicle accidents, a fall in which the person hits their head).
- The vast majority of concussions occur without loss of consciousness.
- Student-athletes who have sustained a concussion may need formal or informal accommodations, curriculum modifications, and monitoring by medical or academic staff until the student is fully recovered.
- 80-90% of TBIs and concussions will resolve within 3 to 4 weeks.

Nature of risk, prevention, and what to do in the case of a TBI or concussion

- Concussions are a type of brain injury, ranging from mild to severe, that can disrupt the way the brain normally functions.
- Any bump, blow or jolt to the head or body causing the head to move rapidly back and forth can cause a TBI or concussion. This sudden movement can cause the brain to bounce around or twist inside the skull, stretching and damaging the brain cells, causing chemical changes. These chemical changes make the brain more sensitive to any increased stress or injury until it fully recovers.
- Prevention of a TBI or concussion
  - Ensure that student-athletes follow the rules for safety and the rules for the sport
  - Encourage them to practice good sportsmanship at all times
  - Make sure the student-athlete wears the correct protective equipment for their activity. This equipment should fit properly, be well maintained, and be worn consistently and correctly.
  - Wearing a helmet is a must to reduce to reduce the risk of severe TBI and/or skull fracture. However, a helmet doesn't make an athlete immune to a concussion. There truly is no "concussion-proof" helmet.
  - Be aware of the concussion policy and procedures for West Lincoln-Broadwell.
- Symptoms reported by person who sustained a TBI or concussion may include:
  - Headache or "pressure" in the head
  - Nausea or vomiting
  - Balance problems or dizziness
  - Double or blurry vision
  - Sensitivity to light
  - Sensitivity to noise
  - Feeling sluggish, hazy, foggy or groggy
  - Concentration or memory problems
  - Confusion
  - Just not "feeling right" or "feeling down"
- Signs observed of person who sustained a TBI or concussion may include:
  - Appears dazed or stunned
  - Is confused about assignment or position
  - Forgets an instruction
  - Is unsure of game, score, or opponent
  - Moves clumsily
  - Answers questions slowly
  - Loses consciousness (even briefly)
  - Shows mood, behavior, or personality changes
  - Cannot recall events prior to hit or fall
  - Cannot recall events after hit or fall

- Continuing to participate in physical activity with a concussion or symptoms of a TBI leaves a student-athlete especially vulnerable to greater injury and may be fatal. If you suspect that a student-athlete has a TBI or concussion, you should take the following steps.
  1. Remove the student-athlete from participation or play.
  2. Ensure that the athlete is evaluated by a health care professional experienced in evaluating for concussion. Do not try to judge the seriousness of the injury yourself.
  3. If the student-athlete is a minor, inform the student-athlete's parents or guardians about the possible concussion and give them the fact sheet on concussion.
  4. Keep the student-athlete out of play the day of the injury. A student-athlete should only return to play with the permission from a health care professional who is experienced in evaluating for concussion.

Return-To-Learn Protocol Following a TBI or Concussion (Table 1)

- The return-to-learn team should consist of:
  - the student
  - parents/guardians
  - other caregivers (coaches, after school providers, day care providers, recess supervisors, etc.)
  - physician, athletic trainer, and/or other approved health care professional experienced with TBIs and concussion
  - school nurse (if applicable)
  - all teachers interacting with the student (including the physical education teacher)
  - school psychologist and/or school counselor (if applicable)
  - speech language pathologist (if applicable)
  - school principal or other principal-designated school administrator
- In addition to cognitive deficiencies, students may also suffer from *behavioral*, *social*, and/or *emotional changes* following a TBI or concussion.
  - If the student becomes frustrated with failure in one area, redirect him/her to other elements of the curriculum associated with success.
  - Acknowledge and empathize with the student's sense of frustration, anger or emotional outburst.
  - Provide reinforcement for positive behavior in addition to academic achievements.
- The protocol should be tailored to specific needs of the student
  - Identify symptoms based on signs and symptoms the student is experiencing
  - Identify specific factors that could worsen the student's symptoms so that steps may be taken to modify those factors
    - Do some classes, subjects, or tasks appear to pose greater difficulty than others as compared to pre-concussion performance?
    - For each class, is there a specific time frame after which the student begins to appear unfocused or fatigued?
      - e.g., headaches worsen after 20 minutes
    - Is the student's ability to concentrate, read or work at a normal speed related to the time of day?
      - e.g., the student has increasing difficulty concentrating as the day progresses
    - Are there specific things in the school or classroom environment that seem to distract the student?
    - Are any behavioral problems linked to a specific activity, setting (bright lights in the cafeteria or loud noises in the hallway), task, or other activity?

- Identify if this is the student's first concussion or how many have been sustained in the past. If the student has a history of concussions, a medical condition at the time of the current concussion (e.g., migraines), or developmental disorders (e.g., learning disabilities and ADHD), it may take longer to recover from the TBI or concussion. Anxiety and depression may also prolong recovery and make it more difficult for the student to adjust to the symptoms of a concussion.

- Provide structure and consistency. Make sure all teachers encountered by the student are using the same strategies.
- Remove a student from a problem situation, but avoid characterizing it as punishment and keep it as brief as possible.
- Establish a cooperative relationship with the student, engaging him/her in any decisions regarding necessary schedule modifications or prioritizing tasks.
- Involve the student's family in any behavior management plan.
- Set reasonable expectations.
- Arrange preferential seating, such as moving the student away from the window (because of bright light being a potential trigger for return of symptoms), away from talkative peers, or closer to the teacher.

Return-To-Play Protocol Following a TBI or Concussion (Table 2)

- A student-athlete should return to physical activity under the supervision of an appropriate healthcare professional. When available, the return-to-play protocol should be carried out closely with your school's athletic trainer.
- Prior to implementing the return-to-play protocol following a TBI or concussion, a baseline must be established in which the student-athlete should not have any TBI- or concussion-like symptoms.
- The protocol (Table 2) consists of five gradual steps that should be followed to help safely return a student-athlete to play. The steps should not be completed in one day, but rather over days, weeks, or months. The student-athlete should only progress to the next step of exertion if they do not have any symptoms during or after completing the current step.
- If a student-athlete's symptoms return or if he/she gets new symptoms when becoming more active at any step, this is a sign that the student-athlete is pushing him or herself too hard too soon. The student-athlete should stop these activities and the student-athlete's health care provider should be contacted if they are not present when the symptoms present. After more rest, TBI or concussion symptoms have subsided, and the student-athlete is back to baseline status, the student-athlete may begin at the previous step.

Table 1: Return-To-Learn Protocol Following a TBI or Concussion

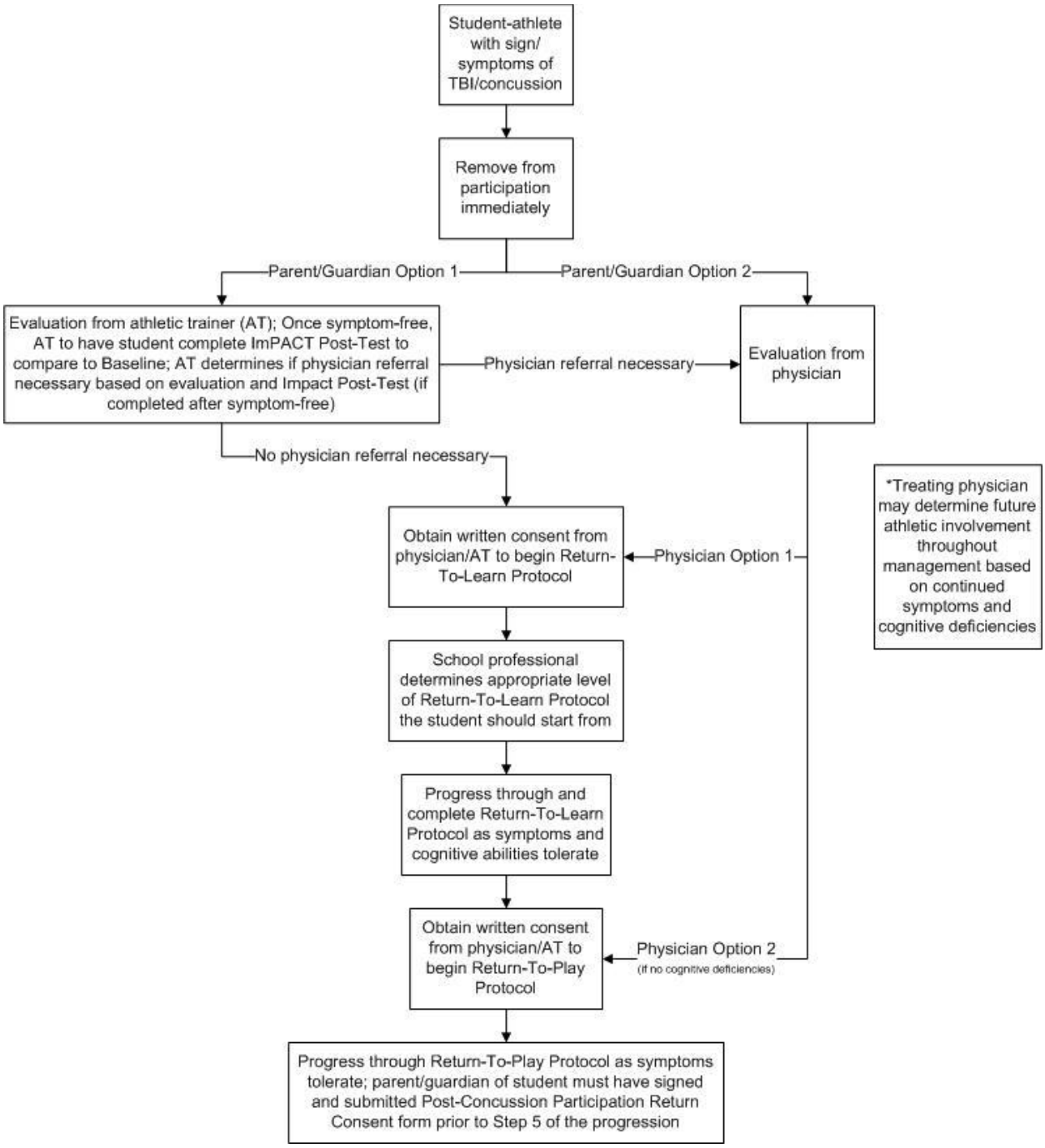
Level	Description	Criteria	Adjustment Examples
Level 1	No school (stay home)	Three or more ImPACT Composite Scores exceeding reliable change index and/or *Exceedingly high Graded Symptom Scale (e.g., Score >25-30)	discourage texting, video gaming, watching TV, using cell phone, listening to music with headphones no homework or computer use cognitive "shut down" use darkened, quiet room
Level 2	Limited School half days/ partial days	Able to tolerate up to 30 minutes of continuous mental exertion	limited/partial class attendance; no P.E./physical exertion periodic rest breaks away from class in quiet area allow to lay head down at desk and remove irritants as needed e.g., bright lights, loud noises limit/modify academic classwork no major/standardized testing provide extra help; assign peer for note taking allow recording of classes if desired "clear desk" and listen extra time for assignments; modify assignments minimal or no homework
Level 3	Full school attendance with moderate accommodations	Able to tolerate up to 45 minutes of continuous mental exertion and/or no more than 1 ImPACT Summary Composite exceeding reliable change index	no P.E./physical exertion limit class attendance in academically challenging classes no major/standardized testing; modified testing rest periods in the classroom as needed extra time for assignments; quizzes as needed limited homework (e.g., less than 30 minutes)
Level 4	Full school attendance with minimal accommodations	Able to tolerate up to 60 minutes of continuous mental exertion and/or *Graded Symptom Scale Score <10	no P.E./physical exertion increase return to normal class workload begin working on missed work/assignments moderate homework (e.g., less than 60 minutes)
Level 5	Full academics (no accommodations)	*Graded Symptom Scale Score of zero	resume normal homework assignments identify essential content and assignments to make up develop realistic timeline for completing assignments re-evaluate weekly until assignments are completed start Step 1 of Return-To-Play Protocol no P.E./physical exertion classes until completion of Return-To-Play Protocol

*Graded Symptom Scale Score ranges shown are a general guide and are not intended as objective criteria delineating stages of recovery or indication for specific instructional modifications or academic accommodations. Graded Symptom Scale Score ranges are extremely subjective and vary dramatically by individual, and also dependent on the selecting Grading Symptom Scale used to derive a symptom score.

Table 2: Return-To Play Protocol Following a TBI or Concussion

Step	Description	Examples
Step 1	*Begin with light aerobic exercise only to* increase an athlete's heart rate	5-10 minutes on an exercise bike, walking, or light jogging (no weight lifting at this point)
Step 2	Continue with activities to increase an athlete's heart rate with body or head movement	moderate jogging brief running moderate-intensity stationary biking moderate-intensity weight lifting (reduced time and/or weight)
Step 3	Add heavy non-contact physical activity	sprinting/running high-intensity stationary biking regular weight lifting routine non-contact sport-specific drills (in 3 planes of movement)
Step 4	Return to practice and full contact (if appropriate for sport) in controlled practice	
Step 5	Return to competition	

Figure 1: Flow Chart for Concussion Management



References:
CDC Concussion Return to Play Guidelines and Facts Sheets
Nebraska Sports Concussion Network: Return To Learn Guidelines
Brain Injury Alliance of Washington: REAP the Benefits of Good Concussion Management

West Lincoln-Broadwell Elementary School District #92
Concussion Return Protocol Consent

I, _____, consent that I have read and agree to the terms of the West Lincoln-Broadwell Elementary School Concussion Protocol. I understand this form must be signed by me or my parent/guardian (in the case of a minor), prior to any interscholastic athletic activity affiliated with West Lincoln-Broadwell Elementary School for the 2017 - 2018 school year.

_____	_____	_____
Student-Athlete or Parent/Guardian (print)	Student-Athlete or Parent/Guardian (sign)	Date

_____
Student's Name