

Title St. Luke's Sports Medicine Concussion Policy and Management Guidelines - Pennsylvania
Scope: Policy & Procedures: Sports Medicine Relationships
Manual: Sports Medicine Relationships Policy & Procedure Manual
Origination Date: 7/16
Revision Dates: 7/16, 6/18, 3/19, 3/20, 3/21
Review Dates: 6/18, 3/19, 11/20, 6/21

I. Protocol Statement

a. This document outlines the protocols and procedures to assist in the management of concussion the safe return to academics and athletics for patients managed by St. Luke's University Health Network. All parties should acknowledge that each concussion is unique, and that this policy provides guidelines for care; however, care plans should be individualized to address the needs of each patient and each unique injury.

II. Purpose

a. To define, develop and communicate a comprehensive outline on the proper recognition, evaluation, and management of a student-athlete who sustains a concussion.

II. Definition

a. A concussion is a brain injury defined as a complex pathophysiological process affecting the brain, induced by biomechanical forces.¹ Other key defining features of concussions include:

- i. Occur from forces applied directly or indirectly to the skull, face, neck, shoulders, and other parts of the body that result in the rapid acceleration and deceleration of the brain.²
- ii. Result in the rapid onset of temporary clinical and neurological symptoms. A loss of consciousness does not always occur but may occur with a concussion. In some cases, signs and symptoms may evolve over minutes to hours.²
- iii. May result in neuropathological changes; however, the acute clinical symptoms reflect a functional disturbance rather than a gross structural injury. In such cases no abnormality may be seen on standard structural neuroimaging studies.²
- iv. Resolution of the clinical and neurological symptoms typically follow a sequential course. However, in some cases this may be prolonged.²

TABLE OF CONTENTS

Protocol Statement.....	1
Purpose.....	1
Definition.....	1
Procedure.....	3
Section I: Education Requirements.....	3
Section II: Prevention Strategies.....	3
Section III: Management.....	4
Disclaimer Statement.....	8
Resources.....	8
Attachments.....	10

IV. Procedure

SECTION I: EDUCATION REQUIREMENTS

In accordance with the **Pennsylvania Safety in Youth Sports Act**³, the following educational programs and requirements for all St. Luke's affiliated groups including coaches, parents and student-athletes has been established.

1. An informational meeting on concussions should be held annually or before each sport season for coaches, parents, and student-athletes. These meetings should include but not limited to:
 - a. Prevention Strategies
 - b. Management
 - c. Plan of Care
 - d. Return to Academics.
 - e. Return to Play.
2. Student-athletes are encouraged to participate in a Peer Concussion-Education Program (PCEP) prior to the start of their respected season (see Addendum 2). The PCEP should consist of two modules and be administered by two trained student-athletes of the team.
 - a. Training for the PCEP program should be conducted by a member of the Sports Medicine Team who has been professionally trained in the evaluation and management of concussion.
3. Parents are suggested to share in the success of the St. Luke's Sports Medicine Concussion Policy by attending scheduled educational sessions and supporting their children as they adhere to the guidelines and progress through the recovery process.
4. Student-athletes are suggested to complete baseline validated neuropsychological testing (i.e., ImPACT®, SCAT5, or other approved neuropsychological testing tool) administered by a trained health care provider.^{3,4}
5. All students desiring to participate in any athletic program and the student's parent, or guardian shall, sign and return to the school an acknowledgement of their receipt and review of concussion and traumatic brain injury information each school year (see Addendum 2).
 - a. Coaches should sign and return to the school an acknowledgement of their receipt and review of concussion and traumatic brain injury information each school year.
6. All members of the Sports Medicine Team who are authorized to make decisions on when the student-athlete can return to play must complete, or have completed, training in the evaluation and management of concussion.
7. Additional training material is available on-line through the Pennsylvania Department of Education or Health (www.state.pa.us) and through the Centers for Disease Control and Prevention (www.cdc.gov).

SECTION II: PREVENTION STRATEGIES

Student-Athlete

1. Student-athletes will be educated on the importance of taking responsibility for reporting their signs and symptoms to their coach, parent, and athletic trainer, as well as adhering to the St. Luke's Sports Medicine Concussion Policy.
2. Each student-athlete is suggested to complete the baseline neuropsychological test (ImPACT®, SCAT5, or other approved neuropsychological testing tool). Baseline testing will be completed prior to their first year of participation and repeated biennially.
3. The student-athlete is responsible for performing daily inspections of their equipment and reporting any issues to the appropriate designate prior to the next team event. The student-

athlete may not perform any maintenance on their equipment nor alter their equipment. Sports equipment includes but is not limited to helmets, protective eye wear and mouth guards.

Coach

1. The concussion policy will be reviewed annually with coaches by members of the St. Luke's Sports Medicine Team.
2. Once each year, all coaches will be required to complete a PA Department of Health approved concussion management certification course.⁵
 - a. See the following link: <http://www.piaa.org/news/details.aspx?ID=2924>
3. Coaches should encourage a culture of reporting and fair play.
4. Coaches should teach proper technique to reduce the risk of head injury.
5. All headgear must be certified by the appropriate governing organization and fitted by a designate that has appropriate knowledge of equipment fitting.^{6,7.}

Parents/Guardians

1. Parents/Guardians will be educated on the importance of reporting their child's signs and symptoms to the coach, Athletic Trainer, or other appropriate school official as well as adhering to the Concussion Policy.

Administrators

1. Administrators should be provided with a copy of the concussion policy.
 - a. Administrators should promote a culture of reporting and fair play amongst coaching staff.

School Nurse

1. The school nurse should be provided with a copy of the concussion policy. This policy may be shared with other members of the school concussion management team.

SECTION III: MANAGEMENT

Step 1: Acute Management

- A. Any student-athlete who exhibits any signs and/or symptoms of a concussion while participating in a school sponsored or Network related athletic event will be removed from activity for the day and shall not return or perform activities that may increase the severity or trigger signs and/or symptoms.
- B. If an Athletic Trainer or a Team Physician is on site, the student-athlete will be referred to that individual for an immediate concussion evaluation.²
 - a. The recognition of a suspected concussion is therefore best approached using multidimensional testing guided via expert consensus.
 - b. At a minimum, the SCAT5 should be performed following injury.
 1. Child SCAT5 should be utilized when evaluating student-athletes ages 12 and younger.
 2. SCAT5 should be utilized when evaluating student-athletes ages 13 and above.
- C. After examination by the Team Physician or Athletic Trainer, a student-athlete who presents with concussion-like signs and/or symptoms shall be excluded from participation for the remainder of the day. Return to participation on the same day will only be allowed if the Team Physician and/or Athletic Trainer determine that no concussion or other brain injury has occurred, and the student-athlete is otherwise in good health.
 - a. Official documentation must be completed prior to returning the student-athlete back to activity.
 - b. It is recommended that the examination be performed in a distraction free zone whenever possible.

- D. Athletic Trainer must contact the student-athlete's parent or guardian if he or she is exhibiting any signs and/or symptoms of a concussion or other brain injury.
 - a. It is recommended that written notification be given to the student-athlete's parent or guardian.
- E. If a Physician or Athletic Trainer is not present at the event, the head coach for the team will be responsible for keeping the student-athlete out of play for the day and must contact the Athletic Trainer and the parent or guardian of the student-athlete.

Step 2: Monitoring and Emergent Referral

- A. Following a suspected concussion, the Athletic Trainer should perform serial monitoring every 15-20 minutes for signs of cognitive or neurological deterioration.
- B. Any deterioration or displaying of the following signs or symptoms will warrant immediate emergency referral:
 - a. Loss of consciousness
 - b. Deterioration of neurological function
 - c. Decreasing level of consciousness
 - d. Abnormally unequal, dilated, or unreactive pupils
 - e. Any signs or symptoms of associated head/neck injuries, spine or skull fractures, or bleeding
 - f. Changes in mental status
 - g. Slurring of speech
 - h. Headaches that are worsening over time
 - i. Inability to recall new events after the injury (Anterograde amnesia)
 - j. Seizure
 - k. Repetitive vomiting
- C. Parents will be notified of concussion as soon as able once student-athlete is stabilized.
 - a. A written copy of home and school instructions will be provided to and reviewed with the parents (i.e.. Last page of the SCAT5, CDC references, additional school handouts).
- D. Student-athletes will be withheld from vigorous activity until cleared by a physician.

Step 3: Plan of Care

- A. The student-athlete should be evaluated by a physician trained in the evaluation and management of concussions. The Athletic Trainer will help to facilitate this appointment with a St. Luke's concussion specialist.
 - a. Student-Athletes ages 9 to 25 will be referred directly to St. Luke's Sports Medicine for evaluation.
 - b. The physician will make return to school recommendations and articulate this with the student-athlete, parent/guardian, school nurse, and Athletic Trainer.
 - c. The Athletic Trainer will be responsible for notifying coaches of the student-athlete's concussion and will be updated regularly on their appropriate level of participation.
- B. The student-athlete will be instructed to check in with the Athletic Trainer daily and if applicable the school nurse (secondary school setting only).
 - a. A Graded Symptom Checklist (GSC) will be completed daily by the Athletic Trainer. The Athletic Trainer will maintain daily logs with HIPAA compliance.
 - b. A decline in condition will be communicated directly to the treating physician.
- C. Based on physician clinical judgement, a referral to Physical Therapy may be warranted for symptomatic student-athletes with prolonged symptoms.

- a. The Athletic Trainer should consult with the treating physician and physical therapist to determine if additional rehabilitation is warranted to be performed by the athletic trainer.
- D. The physician may establish post-concussive (neuropsychological [ImPACT[®]], vestibular, ocular, cognitive) testing timeline.
 - a. Athletes will not have more than one neuropsychological test in a seven-day period unless outlined in treatment plan of the physician.

Step 4: Return-to-Learn: Secondary School

- A. The athletic trainer and parent/guardian will work together to ensure the school nurse is notified once concussion is suspected (see Addendum 3 for an example).
 - a. The school's concussion management team, including but not limited to the school nurse and guidance counselor, will work collaboratively to notify the appropriate teachers of the student-athlete's concussion, and possible academic support.
 - b. In the case of a student-athlete returning to the classroom prior to seeing a physician, the school may choose to implement academic adjustments prior to receiving physician orders as seen fit.
 - I. it is important to note that some student-athletes may choose to return to school immediately following concussion. This should be allowed as long as the symptoms are tolerable/the athlete is not experiencing a severe increase in symptoms.
 - c. The physician may prescribe academic accommodations, including the use of a stepwise approach to return-to-learn. Receipt of physician notes to the athletic trainer or parent/guardian should be provided to the school nurse.
 - i. The physician may recommend performing school activities that do not worsen symptoms (symptom-limited activity).
 - d. Examples of academic support include:
 - i. Take rest breaks as needed.
 - ii. Progress the number of hours in school (shortened school day)
 - iii. Be given more time to take tests or complete assignments. (All courses should be considered)
 - iv. Receive help with schoolwork (e.g., pre-teaching, outlines, note-taker)
 - v. Reduce time spent on the computer, reading, and writing.
 - vi. Be granted early dismissal from each class to avoid crowded hallways.
 - vii. No standardized testing (e.g., PSSA, SAT) until cleared by treating physician.
 - viii. No band or chorus activities.
 - e. BrainSTEPS has created a list of academic adjustments that can be referenced for students in remote online learning that can be found here: https://www.brainsteps.net/_orbs/about/BrainSTEPS.Online.Learning.Adjustments.ABI.pdf.
- B. Students with persistent symptoms (greater than 4 weeks) and who require assistance to be able to participate fully in school, may be candidates for a 504 plan. A 504 plan will describe modifications and accommodations to help a student return to pre-concussion performance levels. For example, a student recovering from a concussion might receive environmental adaptations, temporary curriculum modifications, and behavioral strategies.¹⁰
- C. In Pennsylvania, BrainSTEPS⁸ teams are available to any secondary school in the Commonwealth. These teams have been developed by the Brain Injury Association of Pennsylvania with funding from the Pennsylvania Department of Health and the Department

of Education. BrainSTEPS teams are designed to support the staff, student, parents, or guardians in a return-to-learn after a brain injury. These teams work with all parties to identify and implement appropriate academic support and modifications to manage the student's symptoms and to support their learning needs throughout their secondary school career. The school (e.g., teachers, school counselors, school nurse) and family should monitor the performance of the student closely for 4 weeks after the return to school.⁸ If the return to the classroom causes concussion symptoms to re-occur or if the student demonstrates uncharacteristic performance (e.g., reduced attention span, inability to take tests, acting out in class), the school should initiate a formal referral to the local BrainSTEPS team (www.brainsteps.net).

Step 5: Return to Play

- A. Return to play depends on several factors:
 - a. Children and adolescents should typically not return to sport until they have successfully returned to academics.
 - i. Early introduction of symptom-limited aerobic non-contact physical activity may be appropriate following concussion (ie. Walking, biking, etc.). This may be implemented by the athletic trainer and has been proven to be beneficial.
 - b. Physical exam
 - c. Graded concussion symptom checklist
 - d. History of concussion or other brain injury
 - e. Neuropsychological (i.e., ImPACT[®]) testing scores
 - f. Recommendations of the St. Luke's medical staff and district athletic trainer.
- B. The student-athlete must meet **ALL** the following criteria to return to play:
 - a. Asymptomatic at rest, in the classroom, and with exertion
 - b. ImPACT[®] and/or other neurological testing scores (when indicated) comparable to baseline and reviewed by concussion specialist unless otherwise described by the team physician.
 - c. Written clearance from a physician must be obtained prior to beginning return-to-play protocol.
 - i. If written clearance from a physician does not align with the St. Luke's Concussion Management Protocol, the student-athlete will not be allowed to return to play.
 - ii. The Athletic Trainer has the final say in return-to-play.
 - iii. If a question arises, the final decision for return-to-play would be of the school's Team Physician.
****Notes from outside physicians will not be used to override the St. Luke's protocol.***
- C. Progression through the return to play protocol is individualized and will be determined on a case-by-case basis. The speed of progression will be established by collaboration between student-athlete and the St. Luke's Sports Medicine Team.
 - A. If an athlete returns to play after the typical sport concussion timeline of 2-4 weeks, the athlete may have secondary symptoms that are a result of being withheld from their sport and normal activities. In these instances, the athletic trainer should consult with the treating physician or team physician to determine the appropriate progression and red flags that may limit progression.
- D. A graduated return to play protocol will be utilized. Each step will take, at a minimum, 24 hours unless the treating physician indicates otherwise. Student-athletes must remain asymptomatic prior to taking the next step. If symptoms return, a 24-hour suspension of progression will take place before resuming the level that the athlete completed without experiencing any signs or symptoms.

- a. If symptoms return during progression, student-athlete should be removed from participation until symptoms resolve.
 - b. If symptoms do not resolve, student-athlete should be referred to the treating physician for re-evaluation.
 - c. If the student-athlete remains at the same step of the graduated return to play protocol for three days, the athlete should be referred to the treating physician for re-evaluation.
- E. St. Luke's utilizes the Berlin Consensus Statement from the 5th International Congress on Concussion in Sport² (Each step requiring a minimum of 24-hours)
- a. Athlete remains symptom-free, off medication, for a 24-hour period while completing a day of normal cognitive activities (school day, studying for class, and interaction with peers). If no return of symptoms, progress to next step:
 - b. Light aerobic exercise, 15-40 minutes in length, keeping the intensity <70% maximum predicted heart rate. The objective is to increase heart rate. If no return of symptoms, progress to next step:
 - c. Sport specific drills, 15-40 minutes in length. Drills should be individual (i.e., change of direction, change of pace/intensity, cutting, agility) and exclude all head impact activities. The objective is to add movement while continuing to increase heart rate. If no return of symptoms, progress to next step:
 - d. Non-contact training drills may be done individually or with a team. This may include sport specific skills such as passing, shooting, throwing, etc. Progressive resistance training may begin during this phase. If no return of symptoms, progress to next step:
 - e. Unrestricted participation in practice or normal training activities. The student-athlete may participate in all team drills, including contact, in practice only. The objective is to restore confidence to the student-athlete and assess functionality of the athlete during play. If no return of symptoms, progress to next step:
 - f. Return to play involving normal exertion or game activity.
- F. If symptoms persist and unable to complete RTL or RTP follow-up care should be initiated with collaboration with treating physician. Referral may be warranted to Physical Therapy, Neurology, or other concussion trained specialist.
- a. For High School and Middle School student-athletes with symptoms that persist significantly with conservative treatment, a referral to Neurology may be warranted as determined by the treating sports medicine physician.

IV. Disclaimer Statement

- a. This policy and procedure are intended to provide a description of a course of action to comply with legal requirements and/or operational standards. There may be specific circumstances not contemplated by this policy and procedure that may make compliance either unclear or inappropriate. For advice in these circumstances, consult with your Chain of Command, Administrator on Call, Clinical Risk Management, Legal Services, Accreditation and Standards, or Compliance Officer, as appropriate.

V. References

Resources on Interscholastic Sports Related Concussions and Head Injuries

Internet Resources

Centers for Disease Control and Prevention – Concussion Toolkit

http://www.cdc.gov/concussion/HeadsUp/physicians_tool_kit.html

<http://www.cdc.gov/concussion/headsup/pdf/ACE-a.pdf>

http://www.cdc.gov/concussion/headsup/pdf/ACE_care_plan_school_version_a.pdf

http://www.cdc.gov/concussion/headsup/pdf/Concussion_in_Sports_palm_card-a.pdf

National Federation of State High Schools Association- Online “Concussion in Sports” training program.

www.nfhs.org

Brain Injury Association of Pennsylvania (BIAPA)

www.biapa.org

Pennsylvania Athletic Trainers Society (PATS)

www.gopats.org

National Collegiate Athletic Association (NCAA)

www.NCAA.org/health-safety

Pennsylvania Interscholastic Athletic Association (PIAA)

www.piaa.org

Pennsylvania Physical Therapy Association (PPTA)

www.ppta.org

References

1. What is a Concussion? Concussion-U. September 2014.
<https://concussionu.wordpress.com/what-is-a-concussion/>. Accessed December 1, 2017.
2. McCrory P, Meeuwisse W, Dvořák J, et al. Consensus statement on concussion in sport-the 5th international conference on concussion in sport held in Berlin, October 2016. *Br J Sports Med.* 2017;51(11):838-847. doi:10.1136/bjsports-2017-097699.
3. Safety in Youth Sports Act - Enactment Act of Nov. 9, 2011, P.L. 411, No. 101. The official website for the Pennsylvania General Assembly.
<http://www.legis.state.pa.us/cfdocs/legis/li/uconsCheck.cfm?yr=2011&sessInd=0&act=101>. Accessed December 1, 2017.
4. ImPACT Testing & Computerized Neurocognitive Assessment Tools. <https://www.impacttest.com/>. Accessed December 1, 2017.
5. Requirements to Coach in PIAA Member Schools Information.
<http://www.piaa.org/news/details.aspx?ID=2924>. Accessed December 1, 2017.
6. NOCSAE | National Operating Committee on Standards for Athletic Equipment. <http://nocsae.org/>. Accessed December 1, 2017.
7. NOCSAE Statement Regarding Add-on Helmet Products - PIAA.
<http://www.piaa.org/news/details.aspx?ID=2998>. Accessed December 1, 2017.
8. Concussion and acquired brain injury support for Pennsylvania schools - BrainSTEPS.
<http://www.brainsteps.net/>. Accessed December 1, 2017.
9. Halstad ME, Walter, KD and the Council on Sports Medicine and Fitness, Clinical Report: Sport-related Concussion in Children and Adolescents” *Pediatrics* Volume 126, September 2010, pp.597-615.
10. Davies, S., Gioia, G., Gordon, W., Halstead, M., McAvoy, K. & Rossen, E. (2021). Returning to school after a concussion: A fact sheet for school professionals. *Center for Disease Control*. Retrieved from https://www.cdc.gov/headsup/pdfs/schools/tbi_returning_to_school-a.pdf.

VI. Attachments

Addendum 1

Concussion Policy Acknowledge Form

I hereby acknowledge that I have read and understand the St. Luke's Sports Medicine Concussion Policy and Management Guidelines.

Student-Athlete Signature:

_____ Date ____/____/____

Parent/Guardian Signature:

_____ Date ____/____/____

Coach Signature (If applicable):

_____ Date ____/____/____

Addendum 2

Peer Concussion-Education Program (PCEP)

Disclaimer: This education program was adopted from the Chestnut Hill College Peer Concussion Education Program.

Overview: Introduce a model of concussion education that creates a culture where student-athletes are stakeholders along with coaches, healthcare personnel, and administrators with respect to education, assessment, reporting, and management of sport related concussion.

Primary Goal: Train student-athletes to become Peer Concussion Educators to transform the culture of concussion from within the team itself.

The Peer Concussion Education Program can be broken down into 5 steps:

1. Form an interdisciplinary team to implement and assess the program.
2. Select Peer Concussion Educators.
3. Train peer concussion educators.
4. Peer concussion educators present education modules to teammates.
5. Debrief and assess program.

Two Peer Concussion Educators are selected from each team and trained by the appropriate faculty members (Athletic Trainer). These Peer Concussion Educators will proctor two separate educational modules to their teams. Education Module 1 will increase knowledge about concussions, including the potential for various physiological, cognitive, and affective symptoms that may adversely impact normal functioning. Education Module 2 will utilize a cognitive-behavioral model of change which will be used to identify thoughts that inhibit reporting of a known or suspected concussion experienced by self or teammates and replace those thoughts with those that increase the likelihood of reporting.

The training session of the Peer Concussion Educators takes approximately 45-60 minutes. After the training is complete, the Peer Concussion Educators meet with their respective teams and deliver Education Modules 1 and 2. Modules 1 and 2 require 45-60 minutes. With that being said, the total time commitment for the Peer Concussion Educators to receive their training and deliver the modules to their teams is approximately 2 hours, and the total time commitment for each athletics team is around 45-60 minutes.

After the education modules are delivered, the involvement of the Peer Concussion Educators continues throughout the season. They will typically serve as the liaison between their teammates, sports medicine staff, and coaching staff. The Peer Concussion Educators provide ongoing information and support as needed to their teammates on and off the field.

The following sections of this document will break down what is expected to complete each step of the program.

STEP 1: Form an Interdisciplinary Team to Implement and Assess the Program

To increase concussion knowledge and reporting behaviors, a cultural change is needed. A cultural change requires commitment from coaches, healthcare personnel, administrators, and the student-athletes. To increase the chances of facilitating change, involving professionals from various fields is recommended. An ideal (non-essential) program implementation team includes:

- Athletic Trainer
- Clinical Neuropsychologist
- Counseling Psychologist
- Director of Athletics
- School Nurse
- Health and Physical Education Teacher
- Coaching Staff

This group of faculty and staff bring a vast array of different professional backgrounds and can provide knowledge and resources to implement the program in a manner that engages many aspects of the school in the cultural change process.

Not all institutions will have access to all the aforementioned professionals listed. Not every professional on that list is needed to create and establish a successful Peer Concussion Education Program. At a minimum though, the implementation team should consist of an athletic trainer, director of athletics, and coaching staff.

STEP 2: Select Peer Concussion Educators

Two Peer Concussion Educators should be selected from each of their respected teams. One student-athlete should be an upperclassman (11th or 12th grader) and the other should be an underclassman (9th or 10th grader). Having two student-athletes from these grades will allow for continuity after graduation. It will also allow for mutual support and for their teammates to have an alternative if they do not feel comfortable approaching one of the Peer Concussion Educators with concerns.

When selecting the Peer Concussion Educators, there are many important characteristics that need to be taken into consideration. The candidates should:

- Be respected by the majority of the team.
- NOT be a coach's "favorite" unless the team also holds that individual in high regard.
- Have positive attitudes and behaviors associated with health.
- Have strong interpersonal skills and academic ability.
- Be leaders on and off the field.
- Be approachable and mature.

The success of the program is largely dependent upon the effectiveness of these Peer Concussion Educators. Therefore, a committee should be formed to discuss potential candidates from multiple perspectives and contexts.

STEP 3: Train Peer Concussion Educators

Module 1: Reinforcing and Enhancing Concussion Knowledge

The Peer Concussion Educators are provided with a 30-minute PowerPoint presentation that covers:

- The Pathology of Concussion
- Symptoms of Concussion
- Recovery from Concussion
- The Return to Play Protocol and its Rationale
- Concussion Prevention

The Peer Concussion Educators will be presented with the PowerPoint from their Athletic Trainer. First, the Athletic Trainer will review the information from the existing St. Luke's Concussion Education Protocol with

the Peer Concussion Educators. Second, the Peer Concussion Educators will be provided with a PowerPoint by the Athletic Trainer which includes more in-depth information pertaining to the topics listed above.

NOTE: It is important to point out that the role of the Peer Concussion Educators is not to diagnosis concussion or to remove a teammate from play. Their role is to simply work with their teammates to report any possible concussion symptoms to their Athletic Trainer.

Module 2: Enhancing Concussion Reporting

After receiving their training on Module 1, the Peer Concussion Educators are given a 5-minute break. After this 5-minute break, the Peer Concussion Educators are provided with a 20-minute PowerPoint that uses the cognitive-behavioral model to facilitate changes in thinking and behavior associated with concussion reporting. During this time, the Peer Concussion Educators are also trained to conduct a worksheet activity with their teammates designed to identify cognitions that inhibit reporting concussion in self and teammates and replace them with cognitions that facilitate reporting.

Again, it is important to point out that part of the role of the Peer Concussion Educator is to encourage a teammate with a suspected concussion to report it to the Athletic Trainer. If the teammate chooses not to report, then it is expected that the Peer Concussion Educator will report the teammate with the suspected concussion to the Athletic Trainer.

STEP 4: Peer Concussion Educators Present Education Modules to Teammates

Process for Education Module 1:

The Peer Concussion Educators will present Education Module 1 to their teammates, which will take approximately 20-30 minutes to complete. Following the PowerPoint, there will be a 15-minute discussion session conducted by the Peer Concussion Educators. The information in Module 1 can be complex and technical at times. Due to the nature of the information, an Athletic Trainer will be present during this session to assist the Peer Concussion Educators as needed.

Materials Needed:

- Module 1: Reinforcing and Enhancing Concussion Knowledge
-

Process for Education Module 2:

A 5–10-minute break is recommended following the completion of Education Module 1. The Peer Concussion Educators will then conduct Education Module 2, which is approximately 20-30 minutes in length. This module begins with a presentation that introduces the team to the cognitive-behavioral model of change. Next, the Peer Concussion Educators discuss how that model can be used within their team to enhance self-reporting of concussion and the reporting of teammates with a suspected concussion. This module will conclude with the Peer Concussion Educators leading their teammates in worksheet activities where cognitions that inhibit reporting concussion in self and teammates are identified and replaced with cognitions that facilitate reporting.

Materials Needed:

- Module 2: Enhancing Concussion Reporting
- Activity Part 1: Enhancing Self Reporting of Concussion
- Activity Part 2: Enhancing Reporting of Concussion Suspected in Teammates

NOTE: Faculty and staff are NOT to be present during Education Module 2. This emphasizes the peer-mediated nature of the program and will increase the likelihood that the Peer Concussion Educators and their teammates will respond candidly and will take ownership of the program.

STEP 5: Debrief and Assess Program

This step is not necessary, but debriefing with the Peer Concussion Educators, coaches, and program participants is recommended to obtain the information to improve the program in the future. These questions can be used during the debrief session, but do not necessarily need to be used.

- What was your general experience of the program?
- What were the program's strengths and limitations?
- What suggestions do you have for improvement?
- What are your recommendations for future participants?
-

A formal program assessment is also recommended to determine the overall effectiveness of the program at your specific institution. We realize that every institution is unique, and results may vary based on the demographics of your specific institution.

Student-athletes participating in the program should be assessed at multiple points throughout the academic calendar. The student-athletes should be on assessed on these 5 points:

1. Concussion knowledge
2. Attitude toward concussive reporting
3. Intent to report
4. Perceived attitudes of others toward reporting (direct subjective norm)
5. Ability to report

Acknowledgements: This program was developed and implemented at Chestnut Hill College. Certain aspects were changed and adopted to fit the protocols and procedures used by the St. Luke's University Health Network Sports Medicine Department.

The following link will lead to Chestnut Hill's website where you can access the materials needed for the Education Modules and PowerPoints.

<https://www.chc.edu/peer-concussion-education/peer-concussion-education-program-manual>

Addendum 3

School Concussion Awareness Letter __/__/____

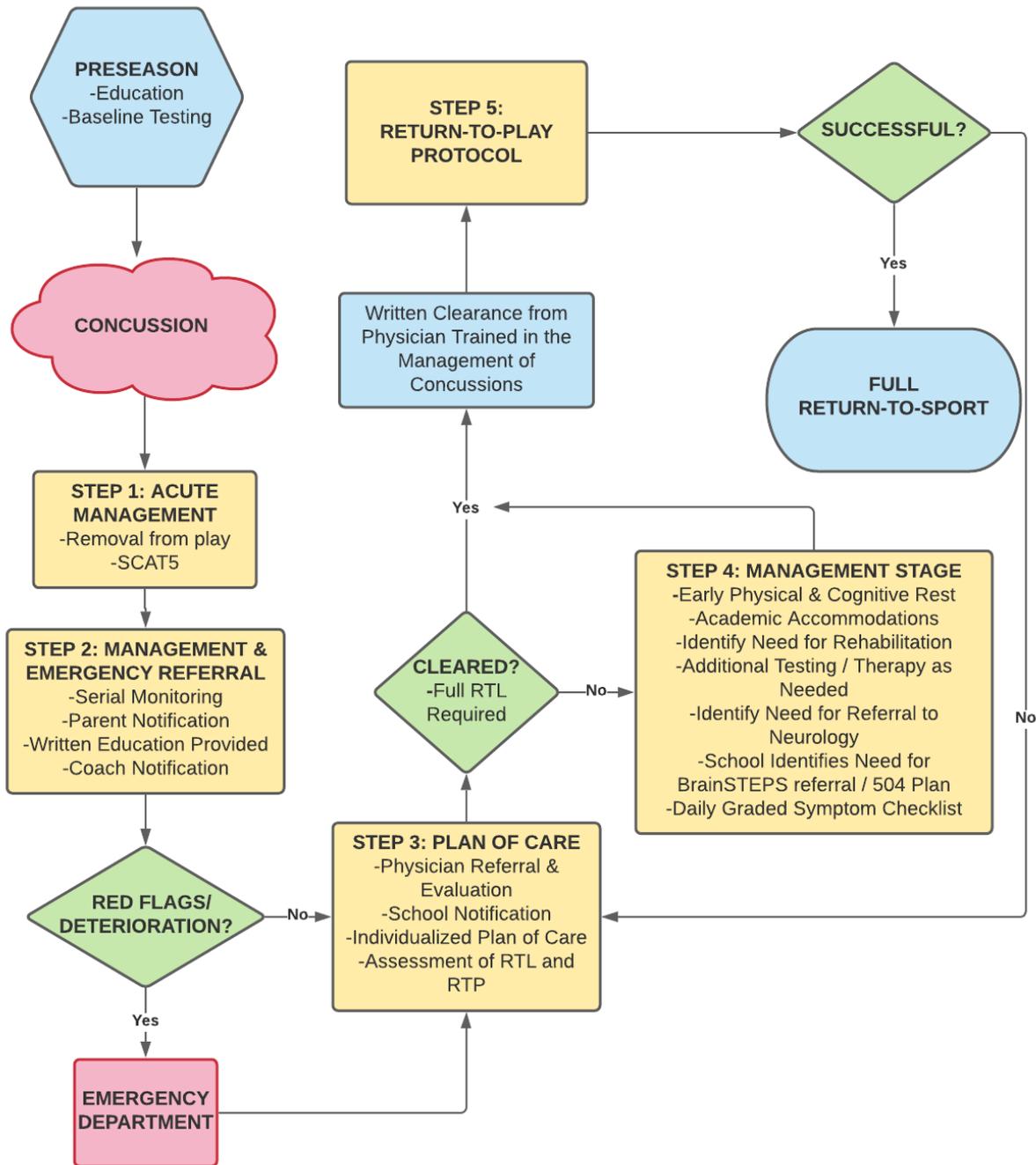
The St. Luke's Sports Medicine Team and _____ (*insert school name*) Athletic Department would like to inform you that _____ (*insert student-athlete name*) sustained concussion-like symptoms during _____ (*insert sport*) on __/__/____. He/she was evaluated by _____ (*insert Athletic Trainer name*). He/she is awaiting an appointment with a physician.

As a department, we wanted to make you aware of this injury and the related symptoms that the student-athlete may experience. Although the student is attending class, please be aware that the side effects of the concussion may adversely impact his/her academic performance. Any consideration you may provide academically during this time would be appreciated. We will continue to monitor the progress of this student-athlete and anticipate a full recovery. Should you have any questions or require further information, please do not hesitate to contact us.

Thank you in advance for your time and understanding with this circumstance.

_____ Student-Athlete	_____ Signature	_____ Date
_____ Parent/Guardian	_____ Signature	_____ Date
_____ Healthcare Provider	_____ Signature	_____ Date

Addendum 4



* Effective concussion management begins well before the injury occurs. During the preseason, trained staff from St. Luke’s Sports Medicine facilitates educational seminars for athletes, parents, coaches, and athletic trainers.

* St. Luke’s collaborates with parents, coaches, athletic trainers, and school nurses to effectively manage the concussion until the athlete can be safely returned to full physical and cognitive activity.