



Bishop Brady Athletic Department
Head Injury and Concussion Procedure



Bishop Brady Athletics - Head Injury and Concussion Procedure

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Parent Summary:

- Sway is used for pre- and post- head injury testing
- Concussion symptoms require professional medical evaluation
- Progressive return to play protocol must be followed prior to competition return
- Follow step-wise return-to-play progression
- Progress is only made when symptom-free each step
- Parent permission and signature is required prior to competition return

Sources:

The Bishop Brady Head Injury and Concussion Procedures is derived from the following sources:

- Bishop Brady Student Handbook
- NHIAA Sports Medicine Committee – Concussion Policy
- RSA 200:50
- Sway Testing Guidelines



Part One: Concussion Baseline and Concussion Management Testing

Sway Testing

Bishop Brady conducts baseline (pre-injury) and concussion management (post-injury) testing for all student-athletes using Sway concussion testing. Sway is an FDA-cleared mobile app-based system that uses smartphone or tablet's built-in sensors (accelerometers) to objectively assess an athlete's balance and cognitive function for concussion management. Sway is available on both the Apple iOS and Android operating systems (QR codes on next page)

Sway measures postural sway, reaction time, memory and impulse control to help healthcare providers track changes, inform return-to-play decisions, and provide objective data alongside traditional assessments. Sway is integrated with Healthy Roster, our Sports EMR, and contracted by Bishop Brady Athletics.

Balance: Sway measures stability using built-in motion sensors of any mobile device or tablet to quantify postural sway. While the device is pressed against the chest, a motion analysis algorithm calculates stability that allows healthcare professionals to administer a medical grade balance test in virtually any setting.

Cognitive Metrics Assessed: In addition to balance, Sway, collects key measurements in concussion management such as:

- Memory
- Reaction Time
- Impulse Control
- Inspection Time

Sway Baseline Testing:

- A baseline measurement will need to be taken annually at the beginning of the student's athlete first sport season and/or after recovering from a known concussion.
- Group baseline testing will be conducted with each team at the beginning of the season, in-person at the practice field according to assigned scheduled time the coach arranges.
- Baseline testing will utilize each individual's personal mobile device.
 - The mobile device must be able to run the Apple or Android operating systems and be able to download the Sway App.
 - It is helpful to download the Sway App prior to coming for a baseline session. Links to download the app can be found below.
 - If you do not own a smart mobile device or cannot download the Sway app, we will provide a means of baseline testing for you.



Why use a concussion management software?

1. It protects your safety – even from yourself. Sometimes athletes are surprised at how poorly they perform on this test after they have assumed they're fine.
2. Balance and cognitive testing allow us to see the invisible symptoms that can occur during a concussion.
3. Tracking – we can see how quickly you are recovering so you can return to play at the earliest safest time. We can also track if things aren't going so well and identify ways in which we can assist your recovery.
4. Hard objective data – when in doubt, objective data can serve as another data point in identifying impairments and aid in the diagnosis of concussion or post-concussion symptoms.

Sway Concussion Testing Directions:

Please download the sway software on your phone, PRIOR to practice the day you are supposed to be tested. To download the Sway Application, please use the following QR codes:

Phone Settings for Testing:

- Volume On
- Change brightness to full
- Change auto-lock/timeout settings. (Settings Display & Brightness Auto-lock 5 minutes)
- Place phone on DND (do not disturb)
- Note: Do not use airplane mode, this will prevent the data from being uploaded

Baseline Testing:

- Enter session code that will be provided for your baseline session.
- Set up your profile by entering your information, please use your school or parent email if possible.
- Run hardware verification
- Symptoms, if you are not experiencing listed symptoms, place a “0” as your answer.
- If you click out of the screen or pull down your menu bar, the current test will be canceled and you will go back to the last completed screen (not a big deal, you'll pick up where you left off).
- When measuring balance, make sure your feet are in the proper stance. (ex. Feet together or heel to toe)
- Keep both hands on the phone & use flicking action when measuring reaction time.

Apple iOS:



Android/Google Play:



Bishop Brady Department of Athletics
35 Columbus Avenue, Concord, NH 03301
603.224.7418
<https://www.bradygiants.org>



Part Two: Concussion Management

What happens when a head injury is suspected?

All athletes who are witnessed hitting their head and exhibit signs or symptoms of vestibular disturbance, cognitive impairment, head pain, or other systemic effect (like nausea or visual impairment) should be examined by a medical professional and assessed for a sports related concussion.

Head Injury Warnings

Often, the signs and symptoms of head injuries do not appear immediately after a trauma, but hours after the injury itself. For this reason, it is important to be vigilant for signs and symptoms of significant head injuries.

Sideline Head Injury Scenario:

If a head injury is suspected, the following scenario are the general steps that should be expected to occur:

1. **Remove:** Athlete is immediately removed from play/participation.
2. **Evaluate:** Sideline evaluation takes place, this will be a comprehensive evaluation conducted by your medical personnel if present at the location of play. If an appointed healthcare provider is not available for a sideline evaluation, coach will use the concussion observation and monitoring tool provided to them. The manager will then administer the “post injury or event” on the athlete.
3. **Notify:** If a head injury has occurred or suspect the parents/guardians will be notified as soon as possible by coaching staff or medical personnel.

Summary of Concussion Management

1. No athlete will return to play (RTP) or practice without following the complete progressive return-to-play.
2. Any athlete suspected of having a concussion should be evaluated by an appropriate health-care professional, whether concussion occurred during NHIAA competition or club/private athletics.
3. Any athlete diagnosed with a concussion should have written clearance from an appropriate health-care professional prior to resuming participation in any practice or competition. NH RSA 200:50 mandates that the student-athlete shall also present written permission from a parent or guardian to return to play.
4. After medical clearance, RTP should follow a step-wise protocol as outlined above with provisions for delayed RTP based upon return of any signs or symptoms - athletes should be asymptomatic at current step before progression to the next step.



Injury Treatment and Return-to-Play

Depending on timing of the injury and treatment, it is important to treat an injury with the appropriate method. Should your student/athlete be injured in a home game or practice, our Naturopathic Doctor or Athletic Trainer will assess the injury and either treat or refer them. The Physicians at Concord Orthopedics, particularly Dr. Moran and Dr. Casey, have volunteered their time to be our Team Physicians. With direct access to Concord Orthopedics physicians, your student/athlete can obtain the appropriate care quickly. Although we have a team of physicians in place, we recognize and support your right to see any doctor you wish. If the injury requires your child to be seen by a doctor, please contact the medical personnel at Brady to help with treatment and a safe return to sports. ***Please be aware that a Physician's note with diagnosis, timeline for return and any restrictions is required. The Bishop Brady medical personnel will make the final determination of when the student can return to play. NO EXCEPTIONS.*** Should the medical personnel at Brady feel the need for a second opinion of an injury, we reserve the right to require that before returning to play.

Bishop Brady Concussion Policy

The recognition and treatment of students/athletes who have sustained a concussion is a priority. If not properly treated, concussions can result in permanent physical and cognitive deficits.

Recovery from a concussion may require limiting physical and/or mental activities. As such, Bishop Brady High School will require the following if a student is suspected/diagnosed with a concussion:

1. If a concussion is suspected, the student must see the school's medical personnel, a physician or a certified concussion specialist within 3 days. If the concussion is resolving, the athletic trainer or school's medical personnel may continue to treat the student until complete resolution. If the student is not showing improvement within 7-10 days of the injury, they will be required to see a physician with expertise managing concussions.
2. If required to see a physician or concussion specialist, after-care instructions, or a post-concussion report form for returning to school/athletics, must be completed by the physician or recognized concussion specialist provided to the school within 48 hours of the appointment.
3. The information must include: date of concussion, dates of excused absences, a return-to-school day, recommended academic accommodations and modifications, and recommended accommodations or limitations on participation in wellness classes and athletics.
4. A student must have a medical clearance from the treating medical professional **as well as the BBHS Naturopathic Doctor or Athletic Trainer** to continue with normal academic and athletic activities.
5. Bishop Brady will make all attempts to comply with reasonable requests by medical professionals for academic and athletic accommodations or modifications.



Part Three: Progressive Return-to-Play Protocol

Bishop Brady Athletics (modified from NHIAA Sports Medicine Return-to-Play) Progressive Return to Play Protocol

Step 1: Back to Regular Activities (such as school)

To enter into the stepwise return to play protocol the athlete should first be back to regular activities (such as School, taking tests and quizzes without worsening symptoms) and has been cleared by their appropriate health-care professional to begin the return to play process. In most all cases, the athlete should have all concussion-related academic adjustments removed prior to beginning the Return to Sports Activity Program.

Step 2: Light Aerobic Activity

Begin with light aerobic exercise only to increase heart rate. This means about 5 to 10 minutes on an exercise bike, brisk walking, or light jogging. No anaerobic activity such as weight lifting should be done at this stage.

Step 3: Moderate Activity

Continue with activities that increase an athlete's heart rate while adding movement. This includes running and skating drills.

Step 4: Non-Contact Training Activity

Add sports specific, more intense, non-contact physical activity, such as such as passing in hockey, dribbling in basketball or soccer, high-intensity stationary biking, regular weightlifting routine.

Step 5: Practice and Full Contact

The athlete may return to practice and full contact (if appropriate for the sport) in a controlled practice setting where the skills can be assessed by the coaches.

Step 6: Competition

The athlete may return to competition. If symptoms of a concussion recur, or if concussion signs and/or behaviors are observed at any time during the return-to-play program, the athlete must discontinue all activity immediately. The athlete may need to be re-evaluated by the appropriate health-care professional or may have to return to the previous step of the return to activity program, as pre-determined by the appropriate health-care professional.



Appendix A: Concussion Injury Assessment Form

To Whom It May Concern:

After witnessing the play and carefully integrating a detailed history including reported present and immediate post-contact subjective symptoms, physical examination and objective metrics, I have concluded that _____ sustained a concussion during the game on _____.

At the time of our evaluation _____ principle residual symptoms and objective signs suggested that:

- Visual
- Cognitive/Memory
- Spatial/Coordination
- Auditory
- Emotional

Dysfunction existed and likely occurred immediately following the concussive event. Additional symptomatic and objectively noted areas of dysfunction also persisted.

If symptoms worsen, the athlete was instructed to report to the nearest Emergency Room for immediate care. Aspirin and other blood thinners should not be used following a concussion. This athlete should seek follow-up care with our Bishop Brady medical personnel or their school's athletic trainer and/or licensed medical provider.

A provider guided return-to-play protocol, as recommended by the NHIAA Sports Medicine Committee, should be implemented before the athlete returns to practice or competition.

If you have any questions, feel free to contact me.

Sincerely,

Dr. Erik O. Nelson, ND
Director of Sports Medicine, Nutrition and Performance
Bishop Brady Department of Athletics



Appendix B: Progressive Return-to-Play Protocol Form

Step 1: Back to Regular Academic Activities (such as school)

Date completed: _____

To enter into the stepwise return to play protocol the athlete should first be back to regular activities (such as school, taking tests and quizzes without worsening symptoms) and has been cleared by their appropriate health-care professional to begin the return to play process. In most all cases, the athlete should have all concussion-related academic adjustments removed prior to beginning the Return to Sports Activity Program.

Step 2: Light Aerobic Activity – Start of Return to Sports

Date completed: _____

Begin with light aerobic exercise only to increase heart rate. This means about 5 to 10 minutes on an exercise bike, brisk walking, or light jogging. No anaerobic activity such as weight lifting should be done at this stage.

Step 3: Moderate Activity

Date completed: _____

Continue with activities that increase an athlete's heart rate while adding movement. This includes running and skating drills.

Step 4: Non-Contact Training Activity

Date completed: _____

Add sports specific, more intense, non-contact physical activity, such as such as passing in hockey, dribbling in basketball or soccer, high-intensity stationary biking, regular weightlifting routine.

Step 5: Practice and Full Contact

Date completed: _____

The athlete may return to practice and full contact (if appropriate for the sport) in a controlled practice setting where the skills can be assessed by the coaches.

Step 6: Competition - Signed form must be obtained

NH RSA 200:50 mandates that the student-athlete shall also present written permission from a parent or guardian to return to play.

The undersigned parent certifies their student-athlete has been asymptomatic during progressive return to play, I give my written consent for my child to return to play after this sustained concussion/head injury. I understand the nature and risks of concussions including increased risk of future injury and accept these risks. I understand symptoms can be delayed and my child will not return to play if symptoms appear.

(signed by Parent/Guardian)

(date)

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