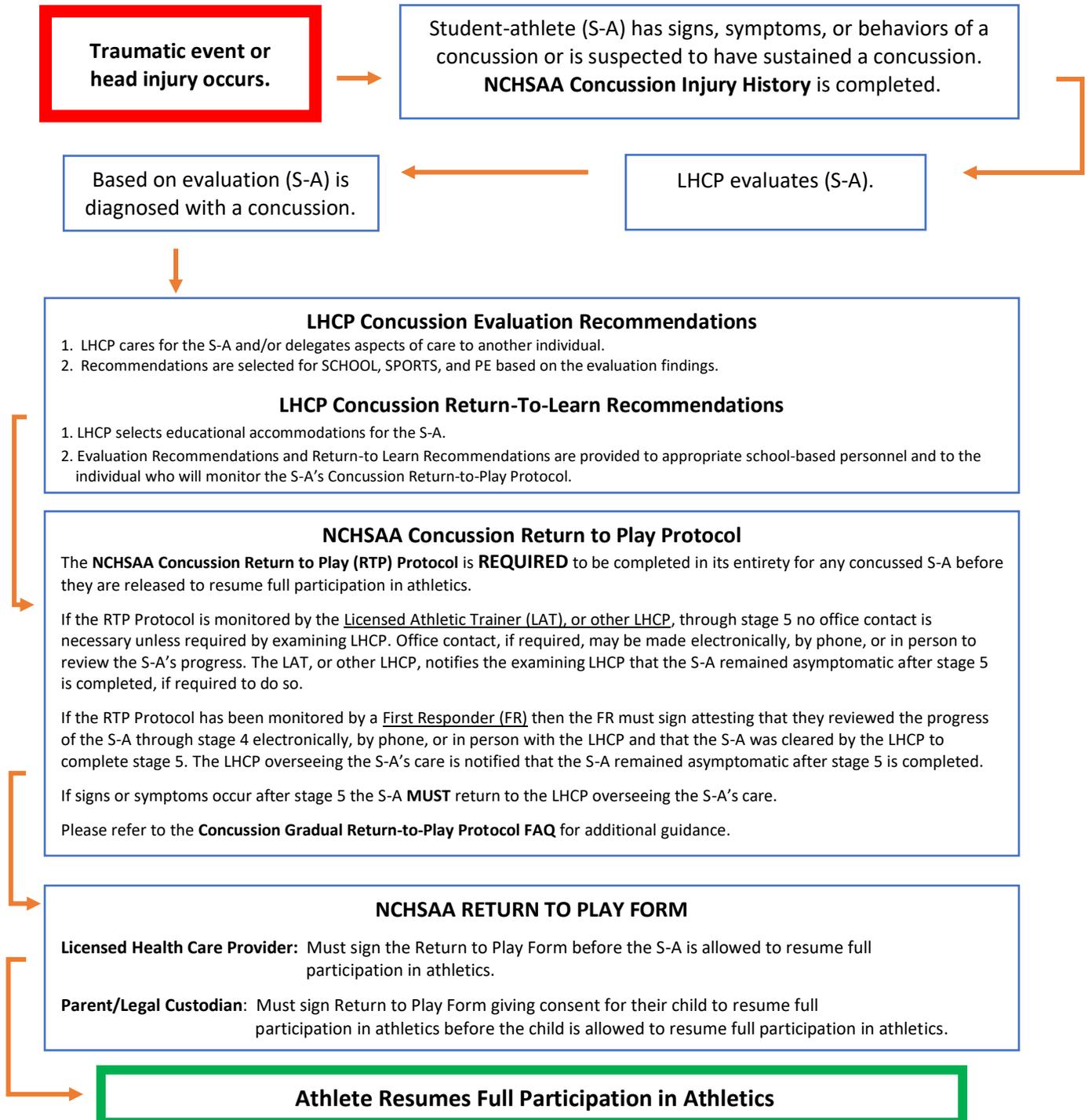




## NCHSAA Student-Athlete Concussion Management Algorithm

Licensed Health Care Providers (LHCP) are **STRONGLY ENCOURAGED** by the NCHSAA to have expertise and training in concussion management. LHCPs include the following individuals: Licensed Physician (MD/DO), Licensed Athletic Trainer (LAT), Licensed Physician Assistant (PA), Licensed Nurse Practitioner (NP), or Licensed Neuropsychologist.





## Gfeller-Waller/NCHSAA Concussion Management Principles

### Health and Safety Personnel

The NCHSAA **STRONGLY RECOMMENDS** that each individual listed below has both expertise and training in concussion management and that LATs, PAs, and NPs consult with their supervising physician before signing the Return To Play Form, as per their respective state statutes.

**Licensed Physician\*\***- An individual who has training in concussion management licensed to practice medicine (MD or DO) under Article 1 of Chapter 90 of the General Statutes.

**Licensed Athletic Trainer (LAT)\*\*** - An individual who has is licensed under Article 34 of Chapter 90 of the General Statutes entitling them to perform the functions and duties of an athletic trainer.

**Licensed Physician Assistant (PA)\*\*** – An individual who has is licensed under the provisions of G.S. 90-9.3 to perform medical acts, tasks, and functions as an assistant to a physician.

**Licensed Nurse Practitioner (NP)\*\*** - Any nurse who has is licensed under the provisions of G.S. 90-18(14) to perform medical acts, tasks or functions.

**Licensed Neuropsychologist\*\***– An individual who has training in concussion management licensed under Article 18A of Chapter 90 of the General Statutes.

**First Responder (FR)** – An individual who has meets the requirements set forth by the North Carolina State Board of Education Policy ATHL-000.

**\*\* Licensed Health Care Provider as defined by the Gfeller-Waller Concussion Awareness Act.**

### Key Tenets of Concussion Management

1. **No athlete with a suspected concussion is allowed return to practice or play the same day that his or her head injury occurred.**
2. It is not feasible for a Licensed Health Care Provider (LHCP) to both diagnose an acute concussion and provide clearance on the same day.
3. Athletes should never return to play or practice if they still have **ANY symptoms.**
4. More than one evaluation is typically necessary for medical clearance for concussion. Due to the need to monitor concussions for recurrence of signs and symptoms with cognitive or physical stress, Emergency Room and Urgent Care physicians typically should not make clearance decisions at the time of first visit.
5. A concussion is a traumatic brain injury that can present in several ways and with a variety of signs, symptoms, and neurologic deficits that can present immediately or evolve over time.
6. Both academic and cognitive considerations should be addressed when managing a student-athlete with a concussion. The NC Dept. of Public Instruction now requires a “Return to Learn” plan for students with suspected head injury. Also, consider guidance on proper sleep hygiene, nutrition, and hydration.
7. The NCHSAA **STRONGLY RECOMMENDS** that all member school student-athletes have a Licensed Physician’s (MD/DO) signature on the Return to Play Form and/or the Licensed Health Care Provider Concussion Evaluation Recommendations Form. Remember that the Licensed Physician (MD/DO) signing the RETURN TO PLAY FORM and/or the Licensed Health Care Provider Concussion Evaluation Medical Recommendation Form is required to be licensed under Article 1 of Chapter 90 of the General Statutes and have had training in concussion management.
8. The student-athlete must be completely symptom-free both at rest AND with cognitive stress, then with full physical exertion before being cleared to resume full participation in athletics (The NCHSAA Concussion Return to Play Protocol has been designed with this in mind).
9. A step-by-step progression of physical and cognitive exertion is widely accepted as the appropriate approach to ensure a concussion has resolved, and that a student-athlete can return to athletics safely. The NCHSAA Concussion Return to Play Protocol, therefore, has been designed using a step-by-step progression and is **REQUIRED** to be completed in its entirety for any concussed student-athlete before they are released to full participation in athletics.



## NCHSAA Concussion Injury History

Student-Athlete's Name: \_\_\_\_\_ Sport: \_\_\_\_\_ Male/Female

Date of Birth: \_\_\_\_\_ Date of Injury: \_\_\_\_\_ School: \_\_\_\_\_

<u>Following the injury, did the athlete experience:</u>	<u>Circle one</u>	<u>Duration (write number/circle appropriate)</u>	<u>Comments</u>
<i>Loss of consciousness or unresponsiveness?</i>	YES   NO	_____ seconds / minutes / _____ hours	
<i>Seizure or convulsive activity?</i>	YES   NO	_____ seconds / minutes / _____ hours	
<i>Balance problems/unsteadiness?</i>	YES   NO	_____ minutes / hrs / days / _____ weeks /continues	
<i>Dizziness?</i>	YES   NO	_____ minutes / hrs / days / _____ weeks /continues	
<i>Headache?</i>	YES   NO	_____ minutes / hrs / days / _____ weeks /continues	
<i>Nausea?</i>	YES   NO	_____ minutes / hrs / days / _____ weeks /continues	
<i>Emotional Instability (abnormal laughing, crying, anger?)</i>	YES   NO	_____ minutes / hrs / days / _____ weeks/ continues	
<i>Confusion?</i>	YES   NO	_____ minutes / hrs / days / _____ weeks /continues	
<i>Difficulty concentrating?</i>	YES   NO	_____ minutes / hrs / days / _____ weeks /continues	
<i>Vision problems?</i>	YES   NO	_____ minutes / hrs / days / _____ weeks /continues	
<i>Other</i> _____ _____	YES   NO	_____ minutes / hrs / days / _____ weeks /continues	

Describe how the injury occurred: \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_

Additional details: \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_

\*\*\*\*\*

Name of person completing Injury History: \_\_\_\_\_

Contact Information: Phone Number: \_\_\_\_\_ Email: \_\_\_\_\_

**Injury History Section completed by:** Licensed Athletic Trainer, First Responder, Coach, Parent, Other **(Please Circle)**



# Licensed Health Care Provider Concussion Evaluation Recommendations

Licensed Health Care Providers (LHCP) are **STRONGLY ENCOURAGED** by the NCHSAA to have expertise and training in concussion management. LHCPs include the following individuals: Licensed Physician (MD/DO), Licensed Athletic Trainer (LAT), Licensed Physician Assistant (PA), Licensed Nurse Practitioner (NP), or Licensed Neuropsychologist.

Name of Athlete: \_\_\_\_\_ DOB: \_\_\_\_\_ Date of Evaluation: \_\_\_\_\_

All NCHSAA member school student-athletes diagnosed with a concussion are **STRONGLY RECOMMENDED** to have input and signature from a physician (MD/DO who is licensed under Article 1 of Chapter 90 of the General Statutes and has expertise and training in concussion management) before being cleared to resume full participation in athletics. Due to the need to monitor concussions for recurrence of signs & symptoms with cognitive or physical stress, Emergency Room and Urgent Care physicians should not make clearance decisions at the time of first visit. All medical providers are encouraged to review the CDC site if they have questions regarding the latest information on the evaluation and care of the scholastic athlete following a concussion injury. Providers should refer to NC Session Law 2011-147, House Bill 792 Gfeller-Waller Concussion Awareness Act for requirements for clearance, and please initial any recommendations you select. (Adapted from the Acute Concussion Evaluation (ACE) care plan (<http://www.cdc.gov/concussion/index.html>) and the NCHSAA concussion Return to Play Protocol.) The recommendations indicated below are based on today's evaluation.

### RETURN TO SCHOOL:

PLEASE NOTE →

### SCHOOL (ACADEMICS):

(LHCP identified below should check all recommendations that apply.)

- The North Carolina State Board of Education approved "Return-To- Learn after Concussion" policy to address learning and educational needs for students following a concussion.
- A sample of accommodations is found on the **LHCP Concussion Return to Learn Recommendations** page.

- Out of school until \_\_\_\_/\_\_\_\_/20\_\_\_\_ (date). LHCP Initial: \_\_\_\_\_ Date: \_\_\_\_\_
- Return for further evaluation on \_\_\_\_/\_\_\_\_/20\_\_\_\_ (date). LHCP Initial: \_\_\_\_\_ Date: \_\_\_\_\_
- May return to school on \_\_\_\_/\_\_\_\_/20\_\_\_\_ (date) with accommodations as selected on the **LHCP Concussion Return to Learn Recommendations** page. LHCP Initial: \_\_\_\_\_ Date: \_\_\_\_\_
- May return to school now with no accommodations needed. LHCP Initial: \_\_\_\_\_ Date: \_\_\_\_\_

### RETURN TO SPORTS:

PLEASE NOTE →

### SPORTS & PHYSICAL EDUCATION:

(LHCP identified below should check all recommendations that apply.)

A step-by-step progression of physical and cognitive exertion is widely accepted as the appropriate approach to ensure a concussion has resolved, and that a student-athlete can return to athletics safely. The **NCHSAA Concussion Return to Play (RTP) Protocol**, therefore, has been designed using a step-by-step progression and is **REQUIRED** to be completed in its entirety by any concussed student-athlete before they are released to full participation in athletics.

- Not cleared for sports at this time.
- Not cleared for physical education at this time.
- May do light physical education that poses no risk of head trauma such (i.e. walking laps).
- May start RTP Protocol under appropriate monitoring and may return to PE activities after completion.
- Must return to the examining LHCP for clearance before returning to sports/physical education.
- May start the RTP Protocol under monitoring of **First Responder**. The examining LHCP must review progress of student-athlete through stage 4 and before beginning stage 5 either electronically, by phone, or in person and an additional office visit is not required unless otherwise indicated by the LHCP. If the student-athlete has remained free of signs/symptoms after stage 5 is completed, the LHCP must then sign the **RETURN TO PLAY FORM** before the student-athlete is allowed to resume full participation in athletics.
- May start the RTP Protocol under monitoring of **LHCP** and progress through all five stages with no office contact necessary unless required by examining LHCP. If student-athlete remains free of signs/symptoms the LHCP must sign the **RETURN TO PLAY FORM** before the student-athlete is allowed to resume full participation in athletics.

Comment: \_\_\_\_\_

\_\_\_\_\_  
Signature of MD, DO, LAT, PA, NP, Neuropsychologist (Please Circle)

Date: \_\_\_\_\_

Please Print Name \_\_\_\_\_

Office Address \_\_\_\_\_

Phone Number \_\_\_\_\_

**The Licensed Health Care Provider above has delegated aspects of the student-athlete's care to the individual designated below.**

\_\_\_\_\_  
Signature of LAT, NP, PA-C, Neuropsychologist, First Responder (Please Circle)

Date: \_\_\_\_\_

Please Print Name \_\_\_\_\_

Office Address \_\_\_\_\_

Phone Number \_\_\_\_\_



## Licensed Health Care Provider Concussion Return-To-Learn Recommendations

Licensed Health Care Providers (LHCP) are **STRONGLY ENCOURAGED** by the NCHSAA to have expertise and training in concussion management. LHCPs include the following individuals: Licensed Physician (MD/DO), Licensed Athletic Trainer (LAT), Licensed Physician Assistant (PA), Licensed Nurse Practitioner (NP), or Licensed Neuropsychologist.

**Name of Athlete:** \_\_\_\_\_ **DOB:** \_\_\_\_\_ **Date:** \_\_\_\_\_

Following a concussion, most individuals typically need some degree of cognitive and physical rest to facilitate and expedite recovery. Activities such as reading, watching TV or movies, playing video games, working/playing on the computer and/or texting require cognitive effort and can worsen symptoms during the acute period after concussion. Navigating academic requirements and a school setting present a challenge to a recently concussed student-athlete. A Return-To-Learn policy facilitates a gradual progression of cognitive demand for student-athletes in a learning environment. Licensed Health Care Providers should consider whether academic and school modifications may help expedite recovery and lower symptom burden. It is important to review academic/school situation for each student athlete and identify educational accommodations that may be beneficial.

Educational accommodations that may be helpful are listed below.

### Return to school with the following supports:

#### Length of Day

- Shortened day. Recommended \_\_\_\_ hours per day until re-evaluated or (date) \_\_\_\_\_.
- ≤ 4 hours per day in class (consider alternating days of morning/afternoon classes to maximize class participation)
- Shortened classes (i.e. rest breaks during classes). Maximum class length of \_\_\_\_ minutes.
- Use \_\_\_\_\_ class as a study hall in a quiet environment.
- Check for the return of symptoms when doing activities that require a lot of attention or concentration.

#### Extra Time

- Allow extra time to complete coursework/assignments and tests.
- Take rest breaks during the day as needed (particularly if symptoms recur).

#### Homework

- Lessen homework by \_\_\_\_ % per class, or \_\_\_\_ minutes/class; or to a maximum of \_\_\_\_ minutes nightly, no more than \_\_\_\_ minutes continuous.

#### Testing

- No significant classroom or standardized testing at this time, as this does not reflect the patient's true abilities.
- Limited classroom testing allowed. No more than \_\_\_\_ questions and/or \_\_\_\_ total time.
  - Student is able to take quizzes or tests but no bubble sheets.
  - Student able to take tests but should be allowed extra time to complete.
- Limit test and quiz taking to no more than one per day.
- May resume regular test taking.

#### Vision

- Lessen screen time (SMART board, computer, videos, etc.) to a maximum \_\_\_\_ minutes per class AND no more than \_\_\_\_ continuous minutes (with 5-10 minute break in between). This includes reading notes off screens.
- Print class notes and online assignments (14 font or larger recommended) to allow to keep up with online work.
- Allow student to wear sunglasses or hat with bill worn forward to reduce light exposure.

#### Environment

- Provide alternative setting during band or music class (outside of that room).
- Provide alternative setting during PE and/or recess to avoid noise exposure and risk of injury (out of gym).
- Allow early class release for class transitions to reduce exposure to hallway noise/activity.
- Provide alternative location to eat lunch outside of cafeteria.
- Allow the use of earplugs when in noisy environment.
- Patient should not attend athletic practice
- Patient is allowed to be present but not participate in practice, limited to \_\_\_\_ hours

### **Additional Recommendations:**

---



---



---



## NCHSAA Concussion Return to Play Protocol

\*The **NCHSAA Concussion Return to Play (RTP) Protocol** is **REQUIRED** to be completed in its entirety for any concussed student-athlete before they are released to resume full participation in athletics. A step-by-step progression of physical and cognitive exertion is widely accepted as the appropriate approach to ensure a concussion has resolved, and that a student-athlete can return to athletics safely. The **NCHSAA Concussion (RTP) Protocol** has been designed using this step-by-step progression.

\*The **NCHSAA Concussion (RTP) Protocol** can be monitored by any of the following Licensed Health Care Providers (LHCP): Licensed Physician (MD/DO), Licensed Athletic Trainer, Licensed Physician Assistant, Licensed Nurse Practitioner, or a Licensed Neuropsychologist. A First Responder may monitor the RTP Protocol if a LHCP is unavailable.

\*After monitored completion of each stage without provocation/recurrence of signs and/or symptoms, a student-athlete is allowed to advance to the next stage of activity. The length of time for each stage is at least 24 hours.

Name of Student- Athlete: \_\_\_\_\_ Sport: \_\_\_\_\_ Male/Female

DOB: \_\_\_\_\_ Date of Injury: \_\_\_\_\_ Date Concussion Diagnosed: \_\_\_\_\_

STAGE	EXERCISE	GOAL	DATE COMPLETED	COMMENTS	MONITORED BY
1	20-30 min of cardio activity: walking, stationary bike.	Perceived intensity/exertion: Light Activity			
2	30 min of cardio activity: jogging at medium pace. Body weight resistance exercise (e.g. push-ups, lunge walks) with minimal head rotation x 25 each.	Perceived intensity/exertion: Moderate Activity			
3	30 minutes of cardio activity: running at fast pace, incorporate intervals. Increase repetitions of body weight resistance exercise (e.g. sit-ups, push-ups, lunge walks) x 50 each. Sport-specific agility drills in three planes of movement.	Perceived intensity/exertion: Hard Activity, changes of direction with increased head and eye movement			
4	Participate in non-contact practice drills. Warm-up and stretch x 10 minutes. Intense, <u>non-contact</u> , sport-specific agility drills x 30-60 minutes.	Perceived intensity/exertion: High/Maximum Effort Activity			
First Responder Verification	If the RTP Protocol has been monitored by a First Responder (FR) then the FR must sign below attesting that they have reviewed the progress of this student-athlete (S-A) through stage 4 electronically, by phone, or in person with the Licensed Health Care Provider (LHCP) and that the S-A was cleared by the LHCP to complete stage 5. <p style="text-align: center;"><b>FR Signature:</b> _____ <b>Date:</b> _____</p>				
5	Participate in full practice. If in a contact sport, controlled contact practice allowed.				
LHCP signs RTP Form	The LHCP overseeing the student-athlete's (S-A) care is notified that the S-A remained asymptomatic after stage 5 was completed. The Return to Play (RTP) Form <b>MUST</b> be signed before the S-A is allowed to resume full participation in athletics. If signs or symptoms occur after stage 5 the S-A <b>MUST</b> return to the LHCP overseeing the S-A's care.				

**The individual who monitored the student-athlete's (RTP) Protocol MUST sign and date below when stage 5 is successfully completed.**

By signing below, I attest that I have monitored the above named student-athlete's return to play protocol through stage 5.

\_\_\_\_\_  
Signature of Licensed Physician, Licensed Athletic Trainer, Licensed Physician Assistant,  
Licensed Nurse Practitioner, Licensed Neuropsychologist, or First Responder (Please Circle)

\_\_\_\_\_  
Date

\_\_\_\_\_  
Please Print Name



**RETURN TO PLAY FORM:  
CONCUSSION MEDICAL CLEARANCE RELEASING THE  
STUDENT-ATHLETE TO  
RESUME FULL PARTICIPATION IN ATHLETICS**

This form must be signed by one of the following examining Licensed Health Care Providers (LHCP) identified in the Gfeller-Waller Concussion Awareness Act before the student-athlete is allowed to resume full participation in athletics: Licensed Physician (MD/DO), Licensed Athletic Trainer (LAT), Licensed Physician Assistant (PA), Licensed Nurse Practitioner (NP), or Licensed Neuropsychologist. This form must be signed by the student-athlete's parent/legal custodian giving their consent before their child resumes full participation in athletics.

Name of Student-Athlete: \_\_\_\_\_ Sport: \_\_\_\_\_ Male/Female

DOB: \_\_\_\_\_ Date of Injury: \_\_\_\_\_ Date Concussion Diagnosed: \_\_\_\_\_

This is to certify that the above-named student-athlete has been evaluated and treated for a concussion and that the Return to Play Protocol was monitored by:

\_\_\_\_\_ at \_\_\_\_\_.

(Print Name of Person and Credential)

(Print Name of School)

As the examining LHCP, I attest that the above-named student-athlete is now reporting to be completely free of all clinical signs and reports he/she is entirely symptom-free at rest and with both full cognitive and full exertional/physical stress and that the above-named student-athlete has successfully completed the required NCHSAA Concussion Return to Play Protocol through stage 5. By signing below therefore, I give the above-named student-athlete consent to resume full participation in athletics.

**It is critical that the medical professional ultimately releasing this student-athlete to return to athletics after a concussion has appropriate expertise and training in concussion management. The NCHSAA, therefore, STRONGLY RECOMMENDS that in concussion cases, Licensed Athletic Trainers, Licensed Physician Assistants, Licensed Nurse Practitioners, consult with their supervising physician before signing this Return To Play Form, as per their respective state statutes.**

Signature of Licensed Physician, Licensed Athletic Trainer, Licensed Physician Assistant,  
Licensed Nurse Practitioner, Licensed Neuropsychologist (Please Circle)

Date

\_\_\_\_\_  
Please Print Name

\_\_\_\_\_  
Please Print Office Address

\_\_\_\_\_  
Phone Number

\*\*\*\*\*

**Parent/Legal Custodian Consent for Their Child to Resume Full Participation in Athletics**

I am aware that the NCHSAA **REQUIRES** the consent of a child's parent or legal custodian prior to them resuming full participation in athletics after having been evaluated and treated for a concussion. I acknowledge that the Licensed Health Care Provider above has overseen the treatment of my child's concussion and has given their consent for my child to resume full participation in athletics. By signing below, I hereby give my consent for my child to resume full participation in athletics.

\_\_\_\_\_  
Signature of Parent/Legal Custodian

\_\_\_\_\_  
Date

\_\_\_\_\_  
Please Print Name and Relationship to Student-Athlete