



GFELLER-WALLER/NCHSAA STUDENT-ATHLETE CONCUSSION MANAGEMENT RESOURCES

1. **Instructions** for completing the forms used when documenting a student-athlete's concussion can be found in the information below.
 - ❖ Gfeller-Waller/NCHSAA Concussion Management Guiding Principles
 - Key Tenets of Concussion Management
 - NCHSAA Specific Requirements Regarding the Gfeller-Waller Concussion Awareness Law as Defined by the NCHSAA Sports Medicine Advisory Committee (SMAC)
 - Health and Safety Personnel
 - ❖ Gfeller-Waller/NCHSAA Concussion Management Algorithm
 - ❖ Concussion Gradual Return-to-Play Protocol FAQ Sheet

2. **Forms** for use when documenting a student-athlete's concussion can be found below.
 - ❖ Gfeller-Waller/NCHSAA Student-Athlete Concussion Injury History Form
 - ❖ Medical Provider Concussion Evaluation Recommendations Form
 - ❖ Concussion Return-To-Learn Recommendations Form
 - ❖ NCHSAA Concussion Return to Play Protocol Form
 - ❖ Return to Play Form

3. **Organization** of the forms used when documenting a student-athlete's concussion can be done by using the checklist below.
 - ❖ Concussion Management Documentation Checklist



Gfeller-Waller/NCHSAA Concussion Management Guiding Principles



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. **Athletes should never return to play or practice if they still have ANY symptoms.**
3. 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.
4. 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.
5. 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.
6. In order to clear an athlete to return to sport without restriction, an athlete should be completely symptom-free both at rest AND with cognitive stress, then with full physical exertion (i.e. has completed **Return to Play Protocol**).
7. It is typically not feasible for a provider to diagnosis an acute concussion and provide clearance on the same day.

NCHSAA specific requirements regarding the Gfeller-Waller Concussion Awareness Law as defined by NCHSAA Sports Medicine Advisory Committee (SMAC)

1. All NC public high school and middle school student-athletes must have a Licensed Physician’s (MD/DO) signature on the **RETURN TO PLAY FORM** which serves as the medical clearance releasing the student-athlete to return to athletic participation prior to them returning to play.
2. The physician signing the **RETURN TO PLAY FORM** is licensed under Article 1 of Chapter 90 of the General Statutes and has training in concussion management.
3. Physicians may choose to delegate aspects of the student-athlete’s care to an office based licensed athletic trainer, licensed nurse practitioner or licensed physician assistant who is working under that physician’s supervision, and may work in collaboration with a licensed neuropsychologist in compliance with the Gfeller-Waller Concussion Law for RTP clearance.

Health and Safety Personnel

Licensed Physician - Physician Licensed to Practice Medicine (MD or DO) under Article 1 of Chapter 90 of the General Statutes and has training in concussion management.

Licensed Athletic Trainer (LAT) - An individual who 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) - Any person who 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 approved under the provisions of G.S. 90-18(14) to perform medical acts, tasks or functions.

First Responder (FR) - A first responder must meet the requirements set forth by the North Carolina State Board of Education Policy HRS-D-000.



Gfeller Waller/NCHSAA Student-Athlete Concussion Management Algorithm

Traumatic event or head injury occurs.

Athlete has signs, symptoms, or behaviors of a concussion or is suspected to have sustained a concussion. **Gfeller-Waller/NCHSAA Concussion Injury History** is completed.

Based on evaluation athlete is diagnosed with a concussion.

Physician or licensed medical care provider under physician's supervision evaluates athlete.

Athlete is referred to physician.

Medical Provider Concussion Evaluation Recommendations

1. Licensed physician provides care for the athlete and/or delegates aspects of care to a licensed medical provider who is working under the physician's supervision.
2. Recommendations are selected for both SCHOOL, SPORTS, and PE based on the evaluation findings.

Concussion Return-To-Learn Recommendations

Educational accommodations are selected.

(Evaluation Recommendations and Return-to Learn Recommendations are provided to appropriate school personnel who will monitor the student-athlete's Concussion Return-to-Play Protocol.)

NCHSAA Concussion Return to Play Protocol Form

A step-by-step progression of physical and cognitive exertion is widely accepted as the appropriate approach to ensure a concussion has been resolved, and that an athlete can safely return to sport. It is with this in mind that the NCHSAA Concussion Return to Play Protocol has been designed. Please refer to the **Concussion Gradual Return-to-Play Protocol FAQ** for guidance when monitoring the student-athlete's RTP.

RETURN TO PLAY FORM

The Licensed Physician overseeing the student-athlete's care should review their progress, including the NCHSAA Concussion Return to Play Protocol Form, before Stage 5 is begun. The Return to Play Form should be completed and signed by the physician at that time then returned to the appropriate school personnel.

(The student-athlete's progress may be reviewed electronically or by phone and does not require an additional office visit unless otherwise indicated by the Licensed Physician.)

Individual monitoring RTP and parent sign RTP.

RETURN TO PLAY FORM
releasing the student-athlete to return to athletic participation is provided to the appropriate school personnel.

Athlete resumes unrestricted participation in athletics.



Concussion Gradual Return-to-Play (RTP) Protocol FAQ

How will I know if the student-athlete is symptom free and ready to begin the RTP Protocol?

Once a student-athlete is completely free of both documented clinical signs and symptoms at rest and classroom induced signs and symptoms (caused by cognitive stimulation such as reading, computer work, and schoolwork) a gradual Return-to-Play (RTP) progression can be started.

Who can monitor the RTP Protocol?

The Licensed Physician who has examined the student-athlete (or their designee), Licensed Athletic Trainer, Licensed Physician Assistant, Licensed Nurse Practitioner, Licensed Neuropsychologist may monitor the athlete. If one of these licensed medical providers is not accessible, the school's first responder can monitor the RTP.

Who must go through the RTP Protocol?

All student-athletes diagnosed with a concussion are required to complete a Return-to-Play Protocol that proceeds in a step-by-step fashion with gradual, progressive stages.

Can a student-athlete engage in physical activity/exercise prior to starting Stage 1?

A qualified yes; keeping in mind that the physical activity/exercise should involve **NO** risk of head trauma and should occur only under direct orders of the treating licensed physician who has evaluated the student-athlete. This light exertion can be started before a student-athlete is entirely asymptomatic. There is evidence that "sub-symptom threshold exercise" (i.e. light exertion that does not cause new or worsen existing symptoms) is safe and may be helpful in concussion recovery,

What activities are included in the RTP Protocol stages?

The RTP Protocol begins with light aerobic exercise designed only to increase your heart rate (e.g. stationary bicycle), then progresses to increasing heart rate with movement (e.g. running), then adds increased intensity and sport-specific movements requiring more levels of neuromuscular coordination and balance including non-contact drills and finally, full practice with controlled contact prior to final clearance to competition.

How does the student-athlete know if he/she is ready to advance to the next stage?

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.

How long is a stage?

The length of time of a stage is typically at least 24 hours.

What should the student-athlete do if signs and/or symptoms return?

If signs/symptoms occur with exercise, the student-athlete should stop and rest. Once free of signs/symptoms for 24 hours, the student-athlete returns to the previously completed stage of the protocol that was completed without recurrence of signs/symptoms and progresses forward in the protocol. During this process, it is important that student-athletes pay careful attention to note any return of concussion signs/symptoms (headache, dizziness, vision problems, lack of coordination, etc.) both during and/or in the minutes to hours after each stage. In the event that signs/symptoms are experienced, they should be reported to the individual monitoring the student-athlete's RTP Protocol.

What should be done if the student-athlete is unable to complete a stage successfully after two attempts?

If a student-athlete is unable to complete a stage twice without return of signs/symptoms, consultation with the licensed physician who has examined the student-athlete is advised. A student-athlete should be progressed to the next stage only if he/she does NOT experience any signs/symptoms.

How long should the completed RTP Protocol form be kept on file?

The completed RTP Protocol form should remain on file at least until the student-athlete graduates from high school.



Gfeller-Waller/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	_____ minutes / hours	
<i>Seizure or convulsive activity?</i>	YES NO	_____ minutes / hours	
<i>Balance problems/unsteadiness?</i>	YES NO	_____ hrs / days / weeks /continues	
<i>Dizziness?</i>	YES NO	_____ hrs / days / weeks /continues	
<i>Headache?</i>	YES NO	_____ hrs / days / weeks /continues	
<i>Nausea?</i>	YES NO	_____ hrs / days / weeks /continues	
<i>Emotional Instability (abnormal laughing, crying, anger?)</i>	YES NO	_____ hrs / days / weeks/ continues	
<i>Confusion?</i>	YES NO	_____ hrs / days / weeks /continues	
<i>Difficulty concentrating?</i>	YES NO	_____ hrs / days / weeks /continues	
<i>Vision problems?</i>	YES NO	_____ hrs / days / weeks /continues	
<i>Other</i> _____ _____	YES NO		

Person completing Injury History Section: Licensed Athletic Trainer, First Responder, Coach, Parent, Other (Please Circle)

Name of person completing Injury History: _____

Describe how the injury occurred: _____

Additional details: _____



Medical Provider Concussion Evaluation Recommendations

(To be completed by Licensed Physician (MD/DO) or an LAT, PA, or NP under treating physician's supervision)

Name of Athlete: _____ Date of Evaluation: _____

All NC public high school and middle school student-athletes must have a Licensed Physician's (MD/DO) signature on the **Return to Play Form: Medical Clearance Releasing the Student-Athlete to Return to Athletic Participation** prior to them returning to play. 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 Form.)

The recommendations indicated below are based on today's evaluation.

RETURN TO SCHOOL:

PLEASE NOTE →

1. The North Carolina State Board of Education approved "Return-To- Learn after Concussion" policy effective 2016-2017 school year to address learning and educational needs for students following a concussion.
2. A sample of accommodations is found on the **Concussion Return to Learn Recommendations** page.

SCHOOL (ACADEMICS):

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

- Out of school until _____.
- May return to school on _____ with accommodations selected on the **Concussion Return to Learn Recommendations** page.
- May return to school now with no accommodations needed.

RETURN TO SPORTS:

PLEASE NOTE →

A step-by-step progression of physical and cognitive exertion is widely accepted as the appropriate approach to ensure a concussion has resolved, and an athlete can return to sport safely. The **NCHSAA Concussion Return to Play Protocol** has been designed using a step-by-step progression.

SPORTS & PHYSICAL EDUCATION

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

- Not cleared for sports or 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.
- Must return to examining physician for clearance before returning to sports/physical education.
- Has completed a gradual RTP Protocol without any recurrence of symptoms. The **RETURN TO PLAY FORM** has been completed and signed by the Licensed Physician releasing the student-athlete to full participation.

Physicians may choose to delegate aspects of the student-athlete's care to a physician practice based licensed athletic trainer, licensed nurse practitioner or licensed physician assistant who is working under that physician's supervision, and may work in collaboration with a licensed neuropsychologist in compliance with the Gfeller-Waller Concussion Law for RTP clearance. * If this option is chosen, that individual should be designated by completing the requested information at the bottom of this page *.

Signature of Physician Licensed to Practice Medicine MD / DO

Date _____

Please Print Name

Office Address

Phone Number

Physician signing this form is licensed under Article 1 of Chapter 90 of the General Statutes and has training in concussion management.

*** The physician above has delegated aspects of the student-athlete's care to the individual designated below *.**

Signature of Physician Practice Based LAT, NP, PA-C, Neuropsychologist (Please Circle)

Date _____

Please Print Name

Office Address

Phone Number



Concussion Return-To-Learn Recommendations

(To be completed by Licensed Physician (MD/DO) or an LAT, PA, or NP under treating physician's supervision)

Name of Athlete: _____ 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. Healthcare providers should consider whether academic and school modifications may help expedite recovery and lower symptom burden. It is important to the 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 Form

Name of Student- Athlete: _____ Sport: _____ Male/Female

Date of Injury: _____ Date Concussion Diagnosed: _____ Date Symptom Free: _____

The Licensed Physician overseeing the student-athlete’s care should review their progress, including the student-athlete’s NCHSAA Concussion Return to Play Protocol Form, before Stage 5 is begun. The **RETURN TO PLAY FORM** should be completed and signed by the Licensed Physician at that time. **(The student-athlete’s progress may be reviewed electronically or by phone and does not require an additional office visit unless otherwise indicated by the Licensed Physician.)**

STAGE	EXERCISE	GOAL	DATE STAGE SUCCESSFULLY 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 (eg. 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			
The RETURN TO PLAY FORM should be signed by the Licensed Physician overseeing student-athlete’s care before Stage 5 is begun.					
5	Participate in full practice. If in a contact sport, controlled contact practice allowed.				
If signs or symptoms occur after stage 5 the student-athlete must return to Licensed Physician overseeing student-athlete’s care.					
6	Resume full participation in competition.				

Individual who monitored the student-athlete’s Return-to Play Protocol and parent/legal custodian or designee should sign and date below when stage 5 is successfully completed without return of signs or symptoms.

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

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

Date

Please Print Name

By signing below, I hereby give consent for my child to return to full participation in athletics without restriction.

Signature of Parent/Legal Custodian or Designee

Date

Please Print Name



North Carolina High School Athletic Association

222 Finley Golf Course Road
Chapel Hill, NC 27515

Phone: (919) 240-7401

FAX: (919) 240-7399

Email: www.nchsaa.org

RETURN TO PLAY FORM: CONCUSSION MEDICAL CLEARANCE RELEASING THE STUDENT-ATHLETE TO RETURN TO ATHLETIC PARTICIPATION

Name of Athlete: _____ Sport: _____ Male/Female

Date of Injury: _____ Date Concussion Diagnosed: _____ Date Symptom Free: _____

This is to certify that _____ (insert name of athlete) has been examined due to exhibiting the signs, symptoms, and behaviors consistent with a concussion. I attest that the above named student-athlete is now completely free of previously documented clinical signs, symptoms, and behaviors while at rest and with both full cognitive and full exertional stress. The student-athlete has, additionally, completed the NCHSAA Concussion Return to Play Protocol through stage 4. By signing below, I do, therefore, release the above named student-athlete to progress through Stage 5, and if symptom free may advance to Stage 6 resuming full athletic participation.

Signature of Physician Licensed to Practice Medicine MD or DO (Please Circle)
Physician signing this form is licensed under Article 1 of Chapter 90 of the General Statutes and has training in concussion management

Date: _____

Please Print Name

Office Address: _____ Phone Number _____

This form should be provided to the appropriate school personnel when it is completed and signed by the Licensed Physician.



**GFELLER-WALLER/NCHSAA
STUDENT-ATHLETE
CONCUSSION MANAGEMENT DOCUMENTATION CHECKLIST**

The forms used when documenting a student-athlete's concussion can be organized in a detailed fashion by using the checklist below. Please be reminded that The NCHSAA requires that the **Medical Provider Concussion Evaluation Recommendations Form**, the student-athlete's **Return to Play Protocol Form**, and **Return to Play Form** must be retained by the school and available for review upon request. It is recommended that all documentation pertaining to injuries sustained by student-athletes, both concussion and otherwise, be retained by the school.

- Concussion Injury History Form**
- *Medical Provider Concussion Evaluation Recommendations Form***
- Concussion Return to Learn Recommendations Form**
- *NCHSAA Concussion Return to Play Protocol Form***
- *Return to Play Form***

*The NCHSAA requires that the **Medical Provider Concussion Evaluation Recommendations Form**, the student-athlete's **Return to Play Protocol Form**, and **Return to Play Form** be retained by the school and available for review upon request.