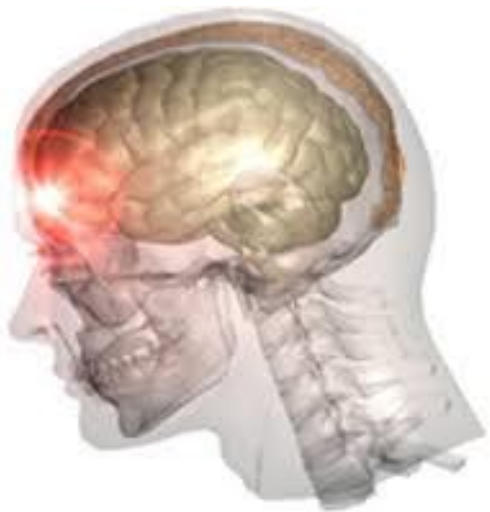




# A Physician Assistant's Guide to **Concussion Management for Student Athletes**

North Carolina High School Athletic Association  
Concussion Return to Play Protocol



# Key Definitions

- LHCP: Licensed Health Care Provider
  - Defined as MD/DO, PA, NP, LAT (Licensed Athletic Trainer), Licensed Neuropsychologist
- FR: First Responder
- RTP Protocol: Return to Play Protocol
- RTP Form: Return to Play Form
- Examining LHCP: LHCP who diagnoses the student-athlete's concussion, may delegate further care to another LHCP or FR
- Monitoring LHCP: LHCP who personally monitors RTP protocol → **This is likely the First Responder or LAT**

# Concussion Return to Play Protocol

- The NCHSSA Concussion 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
- The NCHSSA Concussion RTP Protocol is a step-by-step progression of physical and cognitive exertion accepted as the appropriate approach to ensure a concussion has resolved and that a student-athlete can return to athletics safely
- The NCHSSA Concussion RTP Protocol includes 5 stages

# Concussion Return to Play Protocol

- The concussed student-athlete can be examined by any LHCP
- The NCHSSA Concussion RTP Protocol can be monitored by any LHCP (as defined in the previous slide)
  - A FR may monitor the RTP protocol if a LHCP is unavailable
- The examining LHCP can designate monitoring of the RTP to another appropriate LHCP
  - The monitoring LCHP designated by the examining LHCP is not required to keep contact with the examining LCHP unless requested to do so by the examining LHCP
  - The examining LHCP may choose to require in-person re-examination of the student-athlete

# Concussion Return to Play Protocol

- Stage 1 cannot begin until the athlete is symptom free.
- After monitored completions of each of stage without provocation/recurrence of signs and/or symptoms, a student-athlete is allowed to advance to the next stage of activity
- Each stage is at least 24 hours

# Return to Play Protocol Stages

**Stage 1** 20 – 30 minutes of cardio activity: walking, stationary bike.



**Stage 2** 30 minutes of cardio activity: jogging at medium pace, body weight resistance exercises: push-ups, lunge walks x 25 each, with minimal head rotation.



**Stage 3** 30 minutes of cardio activity: jogging at fast pace, incorporate intervals. Increase reps of body weight resistance exercises: sit-ups, push-ups, lunge walks x 50 each, sport-specific agility drills in 3 planes of movement.



**Stage 4** Participate in non-contact practice drills. Warm-up and stretch for 10 minutes. Intense, non-contact, sport-specific agility drills x 30 - 60 minutes.



**Stage 5** Participate in full practice. If in a contact sport, controlled contact practice allowed.



### 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. <b>FR Signature:</b> _____ <b>Date:</b> _____				
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

PAs defined as monitoring LHCPs

# Return to Play Forms

- A Return to Play form can be signed **only** once the student-athlete remains asymptomatic after stage 5 is complete
- If a student-athlete experiences concussion symptoms after stage 5, they must return to the monitoring LHCP
- The individual who monitored the student-athlete's RTP protocol **MUST** sign and date the Return to Play form
  - If a FR has been monitoring the student-athlete they must notify the examining LHCP that they have remained asymptomatic after stage 5 has completed
  - A FR cannot sign the RTP form
  - If a PA is the examining provider and refers to an LAT for monitoring, then the LAT can sign the form.
- Previously, only MD/DOs could sign off on the RTP form
- Currently, **any** LCHP can sign off on the RTP form – including PAs





**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.**

PAs now explicitly listed on Return to Play form

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

\_\_\_\_\_  
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

# Key Recommendations

Be familiar with diagnosing and monitoring concussions



When in doubt, hold them out!

Know the NCHSSA RTP Protocol well **prior** to evaluating and treating student-athletes

Consider including oversight of RTP protocol in your Scope of Practice Agreement

Consult with your collaborating physician

Each of the 5 stages must last at least 24 hours and cannot be accelerated

# NCHSSA Concussion Management Update - Important Information

- [NCHSAA Concussion Awareness Page](#)
  - NCHSAA Student-Athlete Concussion Management Algorithm
  - Licensed Athletic Trainer Quick Guide for Management of a Concussed Student-Athlete
  - First Responder Quick Guide for Management of a Concussed Student-Athlete
  - Concussion Gradual Return to Play Protocol FAQ
  - Concussion Injury History
  - Licensed Health Care Provider Concussion Evaluation Recommendations
  - Licensed Health Care Provider Return to Learn Recommendations
  - Return to Play Protocol
  - Return to Play Form
- NFHS [Concussion in Sports](#) Course

# For Questions or Additional Information:

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