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 LHCP designated by the examining LHCP is not required to keep contact with the examining LHCP 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.
Name of Student-Athlete: ___________________  Male/Female: ___________________  Sport: ___________________
DOB: ___________________  Date of Injury: ___________________  Date Concussion Diagnosed: ___________________

<table>
<thead>
<tr>
<th>STAGE</th>
<th>EXERCISE</th>
<th>GOAL</th>
<th>DATE COMPLETED</th>
<th>COMMENTS</th>
<th>MONITORED BY</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>20-30 min of cardio activity: walking, stationary bike.</td>
<td>Perceived intensity/exertion: Light Activity</td>
<td></td>
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<tr>
<td>2</td>
<td>30 min of cardio activity: jogging at medium pace. Body weight resistance exercise (e.g. push-ups, lunges, wide squats) with minimal head rotation x 25 each</td>
<td>Perceived intensity/exertion: Moderate Activity</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>30 minutes of cardio activity: running at fast pace, incorporate sprints, increase repetitions of body weight resistance exercise (e.g. sit-ups, push-ups, lunges, wide walks) x 5 each. Sport specific agility drills in three planes of movement.</td>
<td>Perceived intensity/exertion: Hard Activity, changes of direction with increased head and arm movement.</td>
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<tr>
<td>4</td>
<td>Participate in non-contact practice drills. Warm-up and stretch x 30 minutes. Intense pre-contact, sport-specific agility drills 30-60 minutes.</td>
<td>Perceived intensity/exertion: High/Moderate Effort Activity</td>
<td></td>
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</tbody>
</table>

First Responder certification:
If the RTP Protocol has been modified by a First Responder (FR) then the FR must sign below attesting that they have reviewed the progress of this student-athlete (SA) through stage 5 electronically, by phone, or in-person with the Licensed Health Care Provider (LHCP) and that the SA was cleared by the LHCP to complete stage 5.

FIT Signature: ___________________  Date: ___________________

If the student-athlete is asymptomatic after stage 5 was completed, the return to Play (RTP) form MUST be signed before the SA is allowed to return full participation in athletics. If SA signs or symptoms occur after stage 5 the SA MUST return to the RTP form.

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

Signature of Licensed Physician, Licensed Athletic Trainer, Licensed Psychologist, Licensed Nurse Practitioner, Licensed Neuropsychologist, or First Responder (please circle): ___________________

Date: ___________________

Please Print Name
Rev June 2018

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 G железел-Weil Conussion 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 parents/legal guardian giving their consent before their child resumes full participation in athletics.

Name of Student-Athlete: ______________________ Sport: ______________________ Gender: ______________________

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: ______________________

[Signature of Examiners and Credentials] [Signature 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 his/her 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 all 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 any respective state statutes.

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

Please Print Name: ______________________ Please Print Office Address: ______________________ Please Print Office Phone Number: ______________________

Parents/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: ______________________

Rev June 2018

PAs now explicitly listed on Return to Play form
Be familiar with diagnosing and monitoring concussions.

Consult with your collaborating physician.

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

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.

Key Recommendations
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:

Ken Brown, MHDL, LAT, ATC
919-240-7404
Health and Safety Consultant
ken@nchsaa.org