

Current Concepts in Return to Play for Concussions

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**3rd Annual Collaborative Solutions for Safety in Sport
National Meeting**



Hot Topics

- New Mexico High School football player

The screenshot shows the KRQE NEWS 13 website. The top navigation bar includes 'LIVE TV / TOP VIDEO', 'NEWS', 'WEATHER', 'SPORTS', 'TRAFFIC', 'REPORT IT!', 'MORE', and 'FOX NEW MEXICO'. The main headline reads 'High school football player fights concussion law, plays in championship'. The article is by Gabrielle Burkhart, published on December 8, 2015, and updated on March 15, 2016. Social media sharing icons for Twitter, Google+, Facebook (5K+), and Pinterest (1) are visible. An advertisement placeholder is on the right.

- Star Running Back
- Diagnosed concussion < 1 wk before championship game
- State law prohibits RTP no sooner than 1 wk following injury
- Case brought to court

Hot Topics

- New Mexico High School football player
 - **Connecticut High School football player**
 - Proposed Bill in North Carolina
-
- Athlete sustained concussion during Semi-Final game
 - Diagnosed following day
 - Athlete saw pediatrician who confirmed diagnosis and gave clearance for RTP protocol
 - Parents ultimately went to School Board



Student-athlete safety bill would let parents approve return to game

Flanagan said while more education about student-athlete safety is imperative, the bill changes a key component of the Gfeller Waller Act, which is already in place.

"It gives the parents a determination that their child is fine and can return to play with a concussion," said Flanagan.

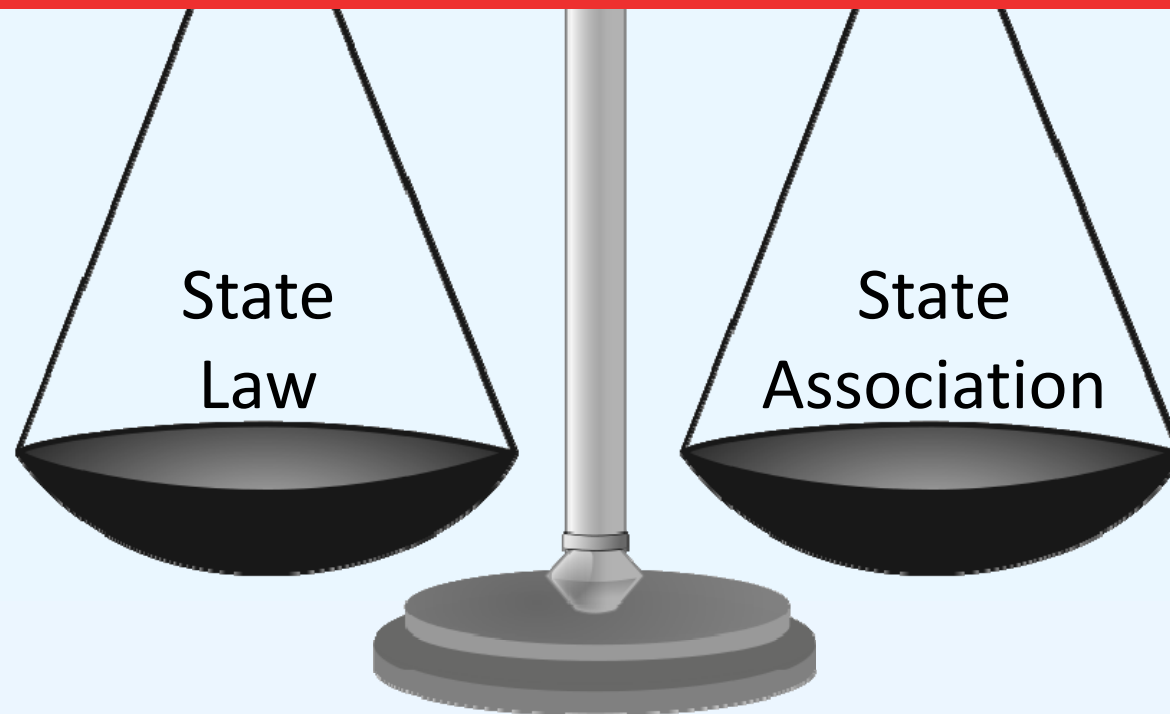
Currently, a student athlete suspected of having a concussion cannot return to play until the student is evaluated and cleared by a healthcare provider.

House Bill 116 would allow a student-athlete to return after receiving clearance from a parent or healthcare provider, which is raising some concerns.

Concussion Legislation

- Sports concussion law in effect in all 50 states plus DC
- Varies state to state
- Common components of law:
 - Removal from play
 - Return to play (RTP) procedures
 - Who can give RTP clearance?
 - Concussion education (coaches, athletes, parents)
 - Baseline testing
 - Return to learn (RTL) procedures

State Associations can impose more stringent guidelines for concussion RTP procedures that meet 'best practices'



What's 'Best Practice'?

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position statement

National Athletic Trainers' Association Position Statement:



CONSENSUS STATEMENT

Consensus Statement on Concussion in Sport—the 4th International Conference on Concussion in Sport Held in Zurich, November 2012

*Paul McCrory, MBBS, PhD, Willem Meeuwisse, MD, PhD, Mark Aubry, MD, Bob Cantu, MD,
Jiri Dvorak, MD, Ruben J. Echemendia, PhD, Lars Engebretsen, MD, PhD, Karen Johnston, MD, PhD,
Jeffrey S. Kutcher, MD, Martin Raftery, MBBS, Allen Sills, MD, and*

Zurich Guidelines

On-Field Evaluation

- Immediate Removal
- Evaluation by physician or healthcare provider (AT)
- SCAT 3

Return to Play

- No athlete should RTP on same day
- Gradual return to school and social activities
- Gradual return to play
 - Stepwise progression (1 step per day)

TABLE 1. Graduated Return to Play Protocol

Rehabilitation Stage	Functional Exercise at Each Stage of Rehabilitation	Objective of Each Stage
1. No activity	Symptom limited physical and cognitive rest.	Recovery
2. Light aerobic exercise	Walking, swimming, or stationary cycling keeping intensity < 70% maximum permitted heart rate. No resistance training.	Increase HR
3. Sport-specific exercise	Skating drills in ice hockey, running drills in soccer. No head impact activities.	Add movement
4. Noncontact training drills	Progression to more complex training drills, eg, passing drills in football and ice hockey. May start progressive resistance training.	Exercise, coordination, and cognitive load
5. Full contact practice	Following medical clearance participate in normal training activities.	Restore confidence and assess functional skills by coaching staff
6. Return to play	Normal game play.	

Two Models

Athletic Trainer Employed

- Immediate Recognition/Removal
- AT communication/education
- Referral to 'team physician' or appropriate healthcare provider
- AT works with school personnel and physician on RTL modifications
- Physician clearance for RTP
- AT supervises athlete through RTP

No Athletic Trainer Employed

- Coach recognition of injury
- Refer (emergency room or primary care physician)
- RTL modifications not guaranteed
- Physician clearance
- RTP progression not guaranteed

Strategies

- Create a network of healthcare providers
 - Identify 2-3 physicians with concussion education/knowledge for referral purposes
 - Ensure collaborative relationships between key players (Medical team, athletic team, academic team)
- * Multidisciplinary Team Approach to Medical Care

A top-down view of several books arranged in a circle on a wooden surface. The books are of various colors and thicknesses, with their pages visible. The text "RETURN TO LEARN" is centered in the middle of the image in a white, sans-serif font.

RETURN
TO
LEARN

American Academy
of Pediatrics



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Guidance for the Clinician in
Rendering Pediatric Care

CLINICAL REPORT

Returning to Learning Following a Concussion

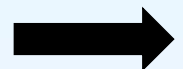
abstract

Following a concussion, it is common for children and adolescents to experience difficulties in the school setting. Cognitive difficulties, such

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Mark E. Halstead, MD, FAAP, Karen McAvoy, PsyD, Cynthia D. Devore, MD, FAAP, Rebecca Carl, MD, FAAP, Michael Lee, MD, FAAP, Kelsey Logan, MD, FAAP, Council on Sports Medicine and Fitness, and Council on School Health

Guidelines for Post-Concussion Academic Accommodations



Stage	Goals/Key Ideas	Teacher's Actions	Student's Actions
I	Complete rest	<ul style="list-style-type: none"> • Contacted by school nurse • Explanation of injury & current plan of care 	<ul style="list-style-type: none"> • Out of school • Strict limits for use of computer, cell phone, texting, video games • No Physical/Sports Activity
II	Significant deficits in processing and concentration. Cognitive activity as tolerated	<p>Develop lists of 3 categories for all assignments:</p> <ol style="list-style-type: none"> 1. Excused: Not made up. 2. Accountable: Responsible for content, not process 3. Responsible: Must be completed and will be graded 	<ul style="list-style-type: none"> • In school as tolerated • Observing, not participating • Communicate with teachers about progress • Be patient with slow recovery • No Physical/Sports Activity
III	Gradual increase of time and energy, slowly resuming full workload	<ul style="list-style-type: none"> • Prioritize assignments with student • Continue to use list above • Set timeline for completion 	<ul style="list-style-type: none"> • Communicate with teachers on assignment progress • No Physical/Sports Activity
IV	Complete resumption of normal activities	<ul style="list-style-type: none"> • Monitor completion of assignments • Communicate w/ parents/staff when student is caught up • Communicate w/ Guidance as grades are updated 	<ul style="list-style-type: none"> • Resume all normal activities • Progress with athletic trainer – supervision resumption of participation in athletics.

Resources

- NATA Position Statement on Concussion Management
- Concussion Statement on Concussion in Sport (Zurich)
- American Academy of Pediatrics – Returning to Learning Following a Concussion
- NFHS Materials
- CDC – Heads Up

Questions to Ponder

- What barriers is your state currently experiencing regarding Concussion RTP and/or RTL?
- What are some of you state's successes in this area? How did you get there?
- What does your state need in order to implement best practices for concussion RTP procedures (including RTL)?
- Who should be allowed to make RTP decisions (Chiropractor, PT, Physician, AT, etc.)?

Thank You!

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