Managing Concussions in the Office

High School Outreach Lecture Series | September 25th, 2012
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So far...

• Your son/daughter/athlete is suspected of a concussion
• Evaluation by ATC on Field of Play
• Now What??
Communication

• ATC → Team Physician (if there is one)
• Will require formal office evaluation

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Availability

• We have concussion slots daily in the afternoon
  – Ages 11- 18
  – Available for the management of the important issue of sports related concussion
OSMI Concussion Specialists

- Dr. Jay Clugston
- Dr. Bryan Prine
- Dr. M. Seth Smith
- Dr. Jason Zaremski
When you arrive

INITIAL ASSESSMENT

- SCAT2
- BESS
- ImPACT
SCAT2

• Sport Concussion Assessment Tool 2
• Standardized method of evaluating athletes 10 years and older for concussion.
• Screening evaluation tool designed for use only by qualified first responders or medical professionals.
• The SCAT2 score does not independently determine the diagnosis of a concussion, nor does it independently determine the injured athlete’s recovery or return to play status.
Postural Stability Testing

Balance Error Scoring System

• Portable, cost-effective and objective method of assessing static postural stability.

• Double leg stance, single leg stance, and tandem stance testing.

• Each of the trials is 20 seconds
Neuropsychological Testing

• ImPACT (Immediate Post-Concussion Assessment & Cognitive Testing)

WHAT THIS TEST LOOKS AT
– Memory (Verbal and Visual)
– Visual Motor
– Reaction Time
– Impulse Control
OSMI Concussion Specialist

• Review all data so far
• Review Neuropsychological Testing
• Begin History and Physical Examination
  – How many concussions? Any Loss of Consciousness?
  – Is your school performance affected?
  – Personality changes? Sleeping/eating more or less?
So Doc...can I play or what??

• Do you have symptoms or don’t you?
• Compare the ENTIRE concussion assessment to baseline
Symptom Free?

• Return to Play Algorithm!
• FHSAA Form 18
  – Communication between ATC and Physician
Post Head Injury/Concussion Initial Return to Participation

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Student Name: ___________________________ DOB: __/__/_____
School: ___________________________________
Sport: ____________________ Date of Injury: __/__/_____

I certify that the above listed student-athlete has been evaluated for a concussive head injury, is currently asymptomatic with a normal neurological examination, off all medications related to this concussive injury and (as available) all computerized neurological tests have returned to baseline (Zurich Stage 1). The student-athlete named above is cleared to begin a graded return to play protocol (outline below) under the supervision of an athletic trainer, coach or other health care professional as of the date indicated below.

Date Cleared for Graded Return to Play Protocol: __/__/_____

If the student-athlete experiences a return of any of his/her concussive symptoms while attempting a graded return to play, the student-athlete is instructed to stop play immediately and notify a parent, licensed athletic trainer or coach.

Physician Name: ___________________________ Signature: ___________________________
Phone: (_____) __________________________ Fax: (_____) __________________________ Date: __/__/_____

Graded Return to Play Protocol

Each step should take at least 24 hours to complete. If the athlete experiences a return of any concussive symptoms they must immediately stop activity, wait at least 24 hours or until asymptomatic, and drop back to the previous asymptomatic level. This protocol must be performed under supervision. Please initial and date the box next to each completed step.

Once the athlete has completed full practice (i.e. stage 4), please sign and date below and return this form to the student-athlete’s physician (MD/DO) for review and request the physician complete the return to competition form for the athlete to resume full activity.

<table>
<thead>
<tr>
<th>Rehabilitation stage</th>
<th>Functional exercise at each stage</th>
<th>Objective</th>
<th>Date completed</th>
<th>Initials</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Light aerobic exercise</td>
<td>Walking, swimming, stationary bike, HR&lt;70% maximum</td>
<td>Increased heart rate</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Sport-specific exercise</td>
<td>Non-contact drills</td>
<td>Add movement</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Non-contact training</td>
<td>Complex (non-contact) drills/practice</td>
<td>Exercise, coordination and cognitive load</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Full contact practice</td>
<td>Full contact practice</td>
<td>Restore confidence and simulate game situations</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

I attest the above-named student-athlete has completed the graded return to play protocol as dated above.

Athletic Trainer/Coach Name: ___________________________ Signature: ___________________________
(if athletic trainer) AT License Number: ___________________________ Phone: (_____) __________________________
(if coach) AD/Principal Name: ___________________________ School: ___________________________ Phone: (_____) __________________________
Student-Athlete Signature: ___________________________ Date: __/__/_____

- Physician Reviewed: ___________________________
Return to play protocol

Each stage = 24 hours without symptoms. If symptoms return, go back to rest stage.

No activity, complete rest. Once symptom free and cognitive recovery is demonstrated, proceed to stage 1.

1. Light aerobic exercise such as walking or stationary cycling
2. Sport specific training (e.g. running drills, ball handling skills)
3. Non-contact training drills
4. Full contact training after medical clearance

Cleared for game competition

Each stage separated by 24 hours
Still Have Symptoms?

- Not Cleared
- Cognitive Rest
- The Athlete & Parent(s)/Guardian to stay in close contact with ATC
Cognitive Rest

• Limit brain activity to keep concussion signs from coming back or getting worse.
Cognitive Rest *Could* Mean...

- Time off from school
- No homework
- No reading
- No visually stimulating activities, such as computers, video games, texting or use of cell phones, and limited or no television
- No exercise, athletics, chores that result in perspiration/exertion
- No trips, social visits in or out of the home
- Increased rest and sleep
1st Study to Prove Cognitive Rest


• Preliminary data suggest that a period of cognitive and physical rest may be a useful means of treating concussion-related symptoms, whether applied soon after a concussion or weeks to months later.
Symptoms Not Improving

- Concern for Post-Concussion Syndrome
- Need advanced evaluation
UF/Shands Psychology Clinic

• Russell M. Bauer, Ph.D., ABPP
  – Adult TBI/concussion, memory and attention retraining, training physicians in office-based tools

• Duane Dede, Ph.D.
  – Adult TBI/concussion; academic reintegration and accommodations for disability; learning disability

• Shelley Heaton, Ph.D.
  – Pediatric TBI/concussion; academic issues; learning disability
Emergency Department Contact

• Latha Ganti Stead, M.D.
  – Traumatic Brain Injury Program
  – (352) 265-5911
  – Can direct athletes who need more than a sideline assessment or prompt attention, but have not yet had an office assessment
Neurology Department Contact

• Bayard Miller, M.D.
  (352) 273-5550
Florida’s Concussion Law

• House Bill No. 291/Senate Bill No. 256
• Filed April 27, 2012
• Effective July 1, 2012
What does it say

• Guidelines to educate athletic coaches, officials, administrators, and youth athletes and their parents or guardians of the nature and risk of concussion and head injury.

• Require the parent or guardian to sign & return an informed consent that explains the nature and risk of concussion and head injury, including the risk of continuing to play after concussion or head injury, each year before participating in athletic competition.
• Require each youth athlete who is suspected of sustaining a concussion or head injury in a practice or competition to be immediately removed from the activity.

• A youth athlete who has been removed from an activity may not return to practice or competition until the youth submits to the athletic coach a written medical clearance to return stating that the youth athlete no longer exhibits signs, symptoms, or behaviors consistent with a concussion or other head injury.

• Medical clearance must be authorized by the appropriate health care practitioner trained in the diagnosis, evaluation, and management of concussions as defined by the Sports Medicine Advisory Committee of the Florida High School Athletic Association.
Click on a state for detailed information.

LEGISLATION STATUS:
- PASSED
- PENDING PASSAGE
- NONE

Source: Education Week
Good Websites


• [http://www.fhsaa.org/](http://www.fhsaa.org/)
Coming Soon

• Next High School Community Outreach Talk
  – WINTER 2012 (Baseball/Softball and Throwing)
Thank you!

Any questions?

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