### SOMERVILLE SPORTS MEDICINE

Michelle Kelly, MS, ATC, LAT

District Coordinator for Concussion Management

Head Athletic Trainer

mkelly@k12.somerville.ma.us

617-625-6600 x6160

#### Student-Athlete Guide

- Make sure your current physical is on file 13 months to the date of the physical NOT the date it was signed. Expired physicals = Not Eligible to play ☺
- Take ImPACT baseline concussion test every other year; unless you have a history of concussion then you take it every year.
- Bring your inhaler/epi pen with you at all times.
- Bring water bottle and/or snack to practice and games.
- Report ALL injuries/illness to ATC/Coach immediately!
- When injured report to athletic training room for rehabilitation and treatment. You will be given a note for coach.

#### Student-Athlete Guide

- Except in an emergency, all athletes should notify the Athletic Trainer before seeing a doctor for sports-related injuries. Somerville Sports Medicine "Physician Forms" should be picked up from the Athletic Training Room prior to your appointment. A signed medical clearance will be required before returning to participation.
- The Athletic Trainer may continue to hold out an athlete that has been cleared by a doctor. Only the Athletic Trainer can declare an athlete eligible to return to play.
- Report all dangerous conditions and/or broken equipment to your coach immediately. Do not use any safety equipment (helmets, pads, etc.) that is not functioning properly or does not fit properly. It is your responsibility to check your safety equipment daily.

#### Injury Prevention

- Fuel your body with proper nutrition
  - Breakfast free starting at 7:30
  - Lunch and bring a pre game snack
- Hydration Drink plenty of water during the day
  - 3-4 water bottles daily
- Stretch both before and after practice
  - Tight muscles cause joint pain
- Get a good nights sleep
  - 6-8 hrs is necessary for recovery

#### **Certified Athletic Trainer**

- Board of Certification National Athletic Trainer
- Massachusetts Allied Health Professional License
- ATs are highly qualified, multi-skilled health care professionals who collaborate with physicians to optimize activity and participation of patients and clients across age and care continuums. Athletic training encompasses the prevention, diagnosis, and intervention of emergency, acute and chronic medical conditions involving impairment, functional limitations, and disabilities. ATs work under the direction of physicians, as prescribed by state licensure statutes.

### **Concussions**

2010-2011 : 20 concussions

2011-2012: 35 concussions (5 occurred outside of athletics)

- 15 recovered 7-10 days
- 10 recovered 1-3 weeks
- 8 recovered 3-10 weeks
- 2 6 months

#### •<u>2013-2014</u>

- 7 during HS sports
- •3 outside of HS sports

#### Somerville Schools Concussion Management Plan

1. Remove the student from ALL physical activity- sports, physical education recess, and dance.

Symptoms may not occur for the first 24 hours. Please be aware that even a "ding" is considered brain trauma.

2. Ensure that the student is evaluated by an appropriate health care professional

Refer the student to the School Nurse and/or Certified Athletic Trainer for cognitive and functional testing

Following evaluation refer student to primary care physician

3. Inform the student's parent or guardian about the head injury and provide written information on concussion care.

Students who have been evaluated by the School Nurse and/or Concussion coordinator/ Certified Athletic Trainer will be provided with a symptom chart for further monitoring of student's symptoms

4. It is Highly recommended to keep your student home for 1-2 days following a head injury

School nurse and/or Concussion Coordinator/ATC may decide student needs more gradual return to school plan

Any student on a half day or no school plan is not allowed to attend any school extracurricular activities.

#### Somerville Schools Concussion Management Plan

5. All students with a concussion will be provided 10 days of academic accommodations to reduce the work load and limit cognitive activity.

School administrators and teachers will be provided with instructions. During this period the student with be assessed for need for a 504 plan. On average a student improves in 7-10 days.

6. Students will not return to physical activity or extra curricular activities until providing written clearance from both Primary care physician and School Nurse or Certified Athletic Trainer.

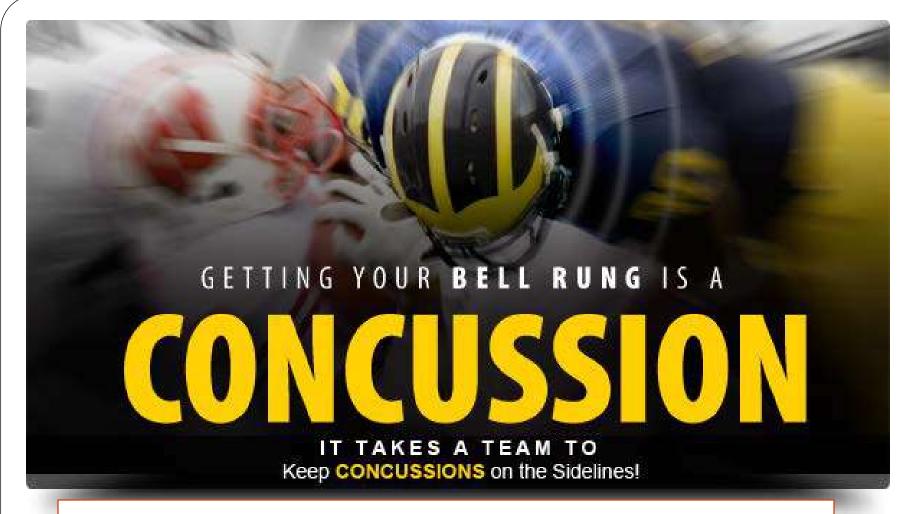
Students must be completely symptom free, back to baseline test scores and have improved balance before beginning a progression back to activity.

A plan to complete all missed work will be made with teachers and guidance staff.

Student whose symptoms do not improve or worsen in 48 hours, will be referred back to their primary care physician.

All coaches, school staff and administrators receive yearly concussion education.

A student-athlete who receives a second concussion within the same school year is automatically ineligible to compete and will be referred for further testing.



80 % of all concussions are "dings" or "getting your bell rung"

- Disr func
- "m et
- CRIS
- MILI
- EVO
  - Si

24

JURY

w for

## symptoms

THINKING/ REMEMBERING	PHYSICAL	# EMOTIONAL/	SLEEP DISTURBANCE
<ul> <li>Difficulty thinking clearly</li> <li>Feeling slowed down</li> <li>Difficulty concentrating</li> <li>Difficulty remembering new information</li> </ul>	<ul> <li>Headache</li> <li>Nausea or vomiting (early on)</li> <li>Balance problems</li> <li>Dizziness</li> <li>Fuzzy or blurry vision</li> <li>Feeling tired, having no energy</li> <li>Sensitivity to noise or light</li> </ul>	Irritability     Sadness     More emotional     Nervousness     or anxiety	<ul> <li>Sleeping more than usual</li> <li>Sleeping less than usual</li> <li>Trouble falling asleep</li> </ul>

### **Testing**

- SCAT 3 combination of exams, created
  - Sideline exam to check major brain issues; cognitive exam, balance exam
- ImPACT computerized test
  - ALL STUDENT ATHLETES BASELINE TEST EVERY OTHER YEAR
  - Measures player symptoms
  - Measures verbal and visual memory, processing speed and reaction time
  - Reaction time measured to a 1/100th of second
  - Assists clinicians and athletic trainers in making difficult return-toplay decisions

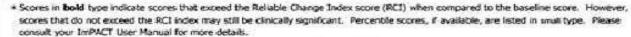
#### IMPACT TEST CLINICAL REPORT

### ImPACT Clinical Report

Mark

Exam Type	Baseline	Post- concussion	Post- concussion	Post- concussion	Post- concussion	Post- concussion
Date Tested	09/21/2004	10/08/2004	10/12/2004	10/15/2004	10/19/2004	10/27/2004
Last Concussion	1000000	10/07/2004	10/07/2004	10/07/2004	10/07/2004	10/07/2004
Exam Language	English	English	English	English	English	English
Test Version	2.2.729	2.2.729	2.2.729	2.2.729	2.2.729	2.2.729

Composite Scores *	3											
Memory composite (verbal)	93	75%	66	196	57	<1%	63	<1%	87	55%	88	55%
Memory composite (visual)†	70	23%	41	<1%	49	1%	47	<1%	55	3%	66	12%
Visual motor speed composite	45.88	85%	46.38	86%	40.13	65%	38.93	57%	45.85	85%	41.90	72%
Reaction time composite	0.54	46%	0.60	22%	0.66	6%	0.54	46%	0.62	15%	0.54	46%
Impulse control composite	8		14		10		16		10		11	
Total Symptom Score	0	100	14		3		1		0		0	



<sup>†</sup> Clinical composite score is available only for exams taken in ImPACT version 2.0 or later.

#### **TREATMENT**

#### REST = Physical and Cognitive

Physical rest = NO
activity that
increases heart rate

No Sports

No Dance

No Physical education

No Weight Lifting

<u>Cognitive rest</u> = Decrease brain activity

NoTV

No texting

No computer

No video games

No music

No reading

No test taking

#### SAY NO



- VOCATIONAL CLASSES
- •BAND
- **•DRAMA**
- •CHORUS
- •FIELD TRIPS
- •AFTER SCHOOL
- **CLUBS/ACTIVITIES**
- •DRIVING
- •WORKING
- **•DANCING**
- •LOUD MUSIC
- •ALL

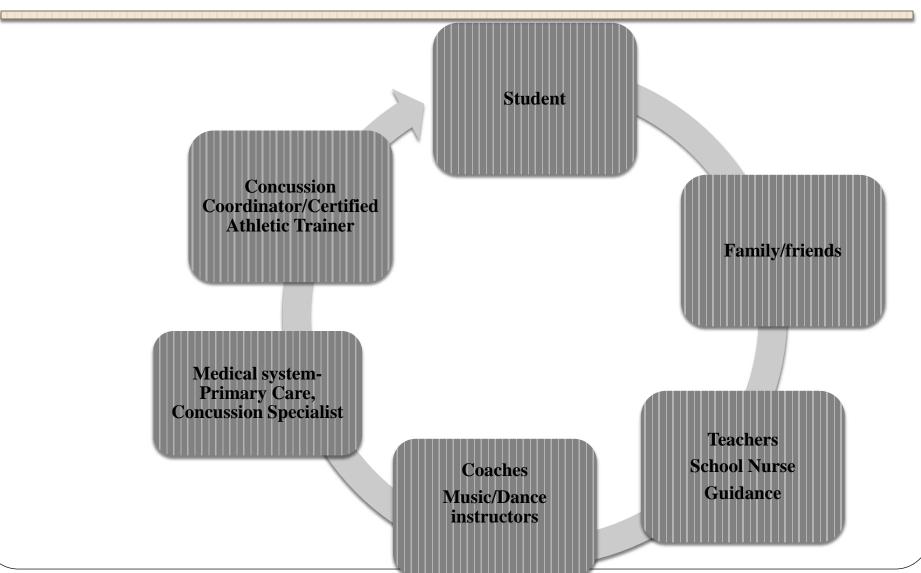
**ELECTRONICS !!!!!** 



## SAY YES



#### School wide approach



Commentary on the Practice and Professions of Athletic Health Care

# Cognitive Rest: The Often Neglected Aspect of Concussion Management

Tamara C. Valovich McLeod, PhD, ATC • A.T. Still University and Gerard A. Gioia, PhD • Children's National Medical Center

#### "Physical rest alone fails to address another key aspect of brain function in youth – mental exertion associated with school activities."

Physical rest alone fails to

address another key aspect

has been under extensive scrutiny in both the media and in Congress. Interestingly, and justifiably, many of the reports admit that concussions are not only a problem for the NFL, but also for the thousands of high school and youth student-athletes who look up to professional athletes. Unlike their NFL counterparts, however, these young athletes face many

however, these young athletes face many unique challenges, including the cognitive demands of school, which should however, traditional concussion management often neglects the student-athlete's role as a student. It is now well-accepted that excessive neurometabolic activity can interfere with recovery from a concussion and that physical rest is needed. Athletes are typically withheld from physical activities until they become

greatly improved management of concussive injuries;

from physical activities until they become asymptomatic and then are progressed through a graded physical exertion

## Student's Role After Suffering Concussion

- **REPORT** HEAD INJURY
- **REST** TURN OFF ELECTRONICS, CLOSE YOUR BOOKS
- **LISTEN** TO YOUR BODY
- **FOLLOW** THE PROTOCOL & ACCOMMODATIONS use your folder and assignment sheets

NOT A FREE PASS...

ATTEND STUDY HALL

#### Parent's Role

- Report all suspected head injuries
- Take away the electronics
- Make your student REST
- Support your student- good & bad days
- Monitor their symptoms
- Communicate any issues
- Trust your instinct!

#### Teacher's Role

- Provide Support
- Be Flexible and Realistic
- Assist with transition process and making accommodations
- Communicate and Collaborate with rest of team

## District Coordinator for Concussion Management

- ◆Primary point of contact- advocate for student
- Evaluating and Monitoring Symptoms
- Providing Accommodations and follow up
- ◆Facilitate and review 504's when necessary
- ◆Educate –Educate –Educate

#### Returning to Play

- 1. Symptom Free
- 2. Back to Baseline ImPACT test scores
- 3. Balance is restored
- 4. Back to 100% academic work
- 5. Caught up on missed work
- 6. Completed 6 phases of Progression of Activity
- 7. Cleared by Doctor and ATC

#### <u>Summary</u>

- Concussions are serious injuries that evolve!
- SYMPTOMS may NOT show for 24-36 hrs.
- Report all suspected concussions Early recognition is crucial!
- Follow the protocol
- Communication is key!!!
- Take care of your body

#### THANK YOU

