

Maclay School

Athletic Concussion Management Protocol

At Maclay, student athletes are our main priority. When one of them receives a blow to the head or body that causes signs and symptoms of a concussion it is the duty of the coach, teacher, nurse, or athletic trainer to refer the student-athlete to a Medical Doctor (MD) or Doctor of Osteopathic Medicine (DO) for treatment and clearance.

What is a Concussion?

A concussion is a form of traumatic brain injury (TBI). This injury can occur as a result of a blow to or around the head that causes acceleration forces to the brain. This movement of the brain within the skull causes a functional disturbance in how the brain works or processes information—also known as a transient alteration in cognitive functioning.

Recognizing the signs and symptoms of a concussion

A concussion can be diagnosed by various signs and symptoms that are observed in the injured athlete. The actual injury may not have been directly witnessed, so any athlete who is suspected of suffering a blow to the head, has fallen from a height, or collides with another person or object may have sustained a concussion.

Signs and Symptoms include, but are not limited to, the following:

- Headache
- Loss of balance
- Disorientation
- Eye Rubbing/Squinting
- Nausea/Vomiting
- Sensitivity to Light/Sound
- Dizziness
- Irritability
- Confusion
- Feeling “Foggy”
- Difficulty Focusing
- Double Vision
- Emotional Sadness
- Difficulty with Memory

At the start of each athletic season, student athletes are required to complete a baseline ImpACT test, a 25-minute computerized test taken to determine an athlete's neurocognitive function before a concussion has been sustained. Maclay utilizes this FDA-cleared testing program as part of the post-injury evaluation to determine neurocognitive deficits when compared to the athlete's baseline test. The baseline and post-injury evaluations will be administered and supervised by the athletic trainer at Maclay.

By law, when a concussion is suspected the steps to return to athletics are as follows:

1. The student athlete is immediately held from practice, competition, weightlifting, and physical education class. The student-athlete's parent or guardian is informed and referred to a Medical Doctor (MD) or Doctor of Osteopathic Medicine (DO) for proper concussion management in compliance with Florida state statutes. (*Maclay School utilizes and recommends Tallahassee Orthopedic Clinic for concussion care*).
2. The athletic trainer will administer a concussion evaluation including the ImpACT post-injury test. The athletic trainer will inform coaches, weightlifting coaches, and the school nurse of the athlete's injury and any activity/academic modifications.
3. The treating physician will fill out a FHSAA - AT18 Form which includes a five-stage return to play protocol (*see below*). The form and any associated notes must be given to the Maclay athletic trainer. The treating physician can also provide written academic accommodations for the classroom, which the athletic trainer will share with the Student Support Team. The graded return to play protocol will be performed under the direct supervision of the athletic trainer or coach.
4. The days following a concussion, student athletes are required to see the athletic trainer each day to complete a symptom evaluation and functional activities per physician's orders.
5. Once the student athlete has completed the five-stage return to play protocol, Florida statutes state that only an MD or DO can provide clearance of a concussed athlete.
6. Once cleared by a MD or DO, the parent must provide the athletic trainer with documentation to fully participate in any practice, competition, weightlifting, or physical education at Maclay.

Academic/ Athletic Roles

Certified Athletic Trainer

The certified athletic trainer (ATC) is often the only healthcare provider present at games and practices so he or she must be comfortable with the acute recognition and early management of concussions. ATCs receive training in concussion recognition and management during their education and certification process.

The ATC should:

- Oversee athletes taking a baseline neurocognitive test if directed by local policy.
- Educate student-athletes on the importance of recognizing and reporting signs and symptoms of concussion.
- Evaluate athletes on the field or in the training room who are suspected of having sustained a concussion and observe and refer to an MD or DO.
- Evaluate athletes and be able to determine if signs and symptoms warrant emergency referral to a medical facility.
- Provide parents and guardians with verbal and written instructions on observing the athlete for complications that warrant emergency care.
- Play a role in assisting the team or private physician request for accommodations.
- Monitor, with the school nurse, the student's return-to-school and physical activities, communicating each step with other members of the concussion management team.

School Nurse

The school nurse is a team member who communicates with the physician, athletic trainer, parents and school staff. He or she will collect documentation and orders from the medical provider and see that orders are implemented. The school nurse will also be an integral part of ongoing assessments during the academic recovery period.

The school nurse should:

- Assess students who suffered an injury at school for signs and symptoms of a concussion. He or she must provide an area of observation and refer as appropriate.
- Communicate with parents regarding their child's status and recommend referral to physician.
- Provide parents of students believed to have sustained a concussion with written and oral instructions for observation and criteria for seeking immediate emergency care.
- Assist in the implementation of medical providers' instructions for academic accommodations.
- Monitor the student's return-to-school activities, provide feedback to the medical provider and implement changes as necessary.
- Maintain records of school assessments and all written communication from the medical provider.
- Participate in the education of staff members in concussion recognition and management.

Teachers

Teachers can assist concussed students by creating an environment and developing modified curricula that allows students to return to the classroom and minimize aggravating stimuli.

Teachers should:

- Be aware of the emotional and academic issues students with concussions face.
- Report academic issues to other members of the academic recovery team.
- Encourage students to report their classroom symptoms.
- Provide classroom academic support with assignment modification.
- Create a classroom environment free of distractions.

For any questions, please email cassandrabryant@maclay.org if you feel that your child has sustained a concussion, or if you have any questions regarding Maclay's Concussion Management Protocol.

ImPACT INFORMATION SHEET:



What is ImPACT?

INFORMATION FOR TEST TAKERS, PARENTS AND GUARDIANS

1. What does ImPACT mean?

ImPACT® stands for **Immediate Post-Concussion Assessment and Cognitive Testing**.

2. What is ImPACT?

ImPACT is an **objective tool to support trained healthcare providers in making sound return to activity decisions following concussions**. It's a computerized test that **measures memory, attention span, visual and verbal problem solving**. ImPACT has two primary uses: before the onset of an activity, a **baseline test** is conducted to measure the athlete's performance baseline. In the event of an injury, a **post-injury test** is administered and compared to the baseline and/or normative data scores.

3. Why use ImPACT?

Neurocognitive testing is the **"cornerstone" of modern concussion management**. It gives healthcare providers **objective data** to evaluate a patient's post-injury condition and aids in tracking recovery for **safe return to activity**.

4. Who is currently using ImPACT?

Thousands of **high schools, colleges, and universities**, thousands of **clinical centers**, hundreds of **Credentialed ImPACT Consultants**, hundreds of **professional teams**, and select **military units** choose ImPACT to assist in the management of concussion. Since 2002, ImPACT has served tens of millions of individual test takers.

5. ImPACT is NOT:

- **A diagnostic test.** ImPACT is one tool that can be used by medical professionals to help measure an individual's recovery from a concussion.
- **A one step solution to concussions.**
- **A preventative tool.** Nothing can truly prevent concussions.
- **A substitute for medical treatment or management.**
- **A replacement for a cat scan, MRI or other medical technology.**

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<https://impacttest.com/wp-content/uploads/What-is-ImPACT.pdf>

<https://impactconcussion.com/new-to-impact/>



Florida High School Athletic Association

Post Head Injury/Concussion Initial Return to Participation
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This form is to be completed by an appropriate health care provider (AHCP-MD/DO) trained in the latest concussion evaluation and management protocols as defined in FHSAA policy 40.2 for any student-athlete that has sustained a concussion and must be kept on file at the student-athlete's school. The choice of AHCP remains the decision of the parent/guardian or responsible party of the student-athlete.

Athlete Name: _____ DOB: ____/____/____ Injury Date: ____/____/____
Sport: _____ School: _____ Level (Varsity, JV, etc.): _____

I (treating physician) certify that the above listed athlete has been evaluated for a concussive head injury, and currently is/has:
(All Boxes MUST be checked before proceeding)

Asymptomatic Normal neurological exam

Off medications related to this concussion Returned to normal classroom activity

.....
 Yes *or* N/A Neuropsychological testing (as available) has returned to baseline

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

By signing below, I certify that I am a medical doctor (MD/DO) familiar with the most current 2016 Consensus Statement on Concussion in Sport and the tools used for evaluation (ex. SCATS). This information will be used to guide return to play progression (page 1) and final clearance to return to competition.

Physician Name: _____ Signature/Degree: _____ MD/DO
Phone: _____ Fax: _____ Today's Date: _____

Graded Return to Play Protocol

After a brief period of initial rest (24-48 hr), symptom-limited activity can begin while staying below a cognitive and physical exacerbation threshold.

Once concussion-related symptoms have resolved, the athlete should continue to proceed to the next level if he/she meets all criteria without recurrence of symptoms. Generally each step should take at least 24 hrs, however, this time frame may vary with player age, history, level of sport, etc., and management must be individualized.

Rehabilitation stage	Functional exercise at each stage	Objective	Date completed	Initials
1. Symptom limited activity	Daily activities that do not provoke symptoms	Gradual reintroduction of work/school activities	Noted above	Signed above
2. Light aerobic exercise	Walking, swimming, stationary bike, HR<70% maximum; no weight training	Increased heart rate		
3. Sport-specific exercise	Non-contact drills, running drills: no impact	Add movement		
4. Non-contact training	Complex (non-contact) drills/practice	Exercise, coordination and cognitive load		
5. Full contact practice	Full contact practice, normal activities	Restore confidence and simulate game situations		
6. Return to full activity	Return to competition	After completion of the steps above; Form AT18, Page 2 must be completed by physician		

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

Athletic Trainer / Coach Name: _____ AT License Number: _____ Phone: _____

Athletic Trainer / Coach Signature: _____ Date: ____/____/____

Physician Reviewed:



Florida High School Athletic Association

Post Head Injury/Concussion Initial Return to Participation

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Return to Competition Affidavit

Student-Athlete's Name: _____

Date of Birth: ____/____/____ Injury Date: ____/____/____

Formal Diagnosis: _____

School: _____

Sport: _____

I certify that I have reviewed the signed graded return to activity protocol provided to me on behalf of the athlete named above.

This athlete is cleared for a complete return to full-contact physical activity as of ____/____/____.

This student-athlete is instructed to stop play immediately and notify a parent, licensed athletic trainer or coach and to refrain from activity should his/her symptoms return.

Physician Name: _____

Physician Signature: _____ MD/DO License No.: _____

Phone: (____) _____ Fax: (____) _____ E-mail: _____

Date: ____/____/____

By signing above, I certify that I am a medical doctor (MD/DO) familiar with the most current 2016 Consensus Statement on Concussion in Sport and the tools used for evaluation (ex: SCAT5). This information will be used to guide return to play progression (page 1) and final clearance to return to competition.

TOC 5 - STAGE RETURN TO PLAY PROTOCOL:

Return to Play Stage	Target Heart Rate:	Exercise Examples:	Date Completed/Supervisor Signature
Stage 1 <u>Recommendations:</u> Exercise in a quiet environment, non-contact, limit head/neck movement and position change, limit cognitive demand.	<u>Target HR:</u> 30-40% of maximum exertion (Max HR-Rest. HR x.30) + Rest. HR	Stationary bike (15-20 min.) Stationary balance activities. Weight machines, squats, & lunges. Core exercises, no head/neck movement.	
Stage 2 <u>Recommendations:</u> Exercise in normal gym environment, allow for minor positional changes and head/neck movements, minor cognitive demand (counting exertion reps).	<u>Target HR:</u> 40-60% of maximum exertion (Max HR-Rest. HR x.40) + Rest. HR	Elliptical, treadmill walking/jogging. Stationary balance with head movements. Resistance with head movements (lateral squats with head movement). Low level sports specific activity. Core exercises with head movements (side planks, bicycles, twists.)	
Stage 3 <u>Recommendations:</u> Indoor/Outdoor training, initiate strength/conditioning, and dynamic balance exercises. Increased cognitive demand (visual demand.)	<u>Target HR:</u> 60-80% of maximum exertion (Max HR-Rest. HR x.60) + Rest. HR	Moderate aerobic exercise, (intervals, stairs). Dynamic movements/positional changes. Impact activities (running, plyometrics). Increased sport specific activity.	
Stage 4 <u>Recommendations:</u> Return to sport specific practice/training, non-contact	<u>Target HR:</u> 80% of maximum exertion (Max HR-Rest. HR x.80) + Rest. HR	Full practice/training activity with contact.	
Stage 5 <u>Recommendations:</u> Simulated contact in practice training settings with full activity.	<u>Target HR:</u> 100% of maximum exertion with contact (Max HR-Rest. HR x 1) + Rest HR	Full practice/training activity with contact.	

Reference Page

<https://www.choa.org/~media/files/Childrens/medical-services/concussion/concussion-tookit.pdf?la=en>

<https://impacttest.com/wp-content/uploads/What-is-ImPACT.pdf>

<https://impactconcussion.com/new-to-impact/>