

Return-to-Play Protocol After Concussion/mild TBI

Return to activity and play is a medical decision. The athlete must meet all of the following criteria to progress to activity:

- Asymptomatic at rest and with exertion (including mental exertion in school).
- Written clearance from a licensed healthcare provider.

Once the above criteria are met, the athlete may progress back to full activity following the stepwise process detailed below with careful supervision from a Certified Athletic Trainer or the athlete's physician.

Progression must be determined on a case-by-case basis. Factors that can affect the rate of progression include: previous history of concussion, duration and type of symptoms, age of the athlete and sport/activity in which the athlete participates. An athlete with a prior history of concussion, one who has had an extended duration of symptoms, or one who is participating in a collision or contact sport should be progressed more slowly. If post-concussion symptoms occur at any step, the athlete must stop the activity, and the treating physician must be contacted.

Step 1. Complete Cognitive Rest	<ul style="list-style-type: none">• This might include staying home from school or limiting school hours (and studying) for several days. Activities requiring concentration and attention can worsen symptoms and delay recovery.
Step 2. Return to School Full Time	<ul style="list-style-type: none">• Learning accommodations might be required.
Step 3. Light Exercise	<ul style="list-style-type: none">• This step cannot begin until the athlete is no longer having concussion symptoms and is cleared by a physician for further activity. At this point, the athlete may begin walking or riding an exercise bike. No weight lifting.
Step 4. Running in the gym or on the field.	<ul style="list-style-type: none">• No helmet or other equipment.
Step 5. Non-contact training drills in full equipment.	<ul style="list-style-type: none">• Weight training may begin.
Step 6. Full contact practice or training.	<ul style="list-style-type: none">• Must be cleared by MD before returning to play.
Step 7. Play in game.	

The athlete should spend 1 to 2 days at each step before advancing to the next. If post-concussion symptoms occur at any step, the athlete must stop the activity and the treating physician must be contacted. The athlete will probably be told to rest for 24 hours and then resume activity at a level one step below where he or she was when the symptoms occurred, though longer rest or further treatment might be required depending on the specific type and severity of the symptoms.

Assemble a Concussion Management Team

A Concussion Management Team (CMT) can create and implement a concussion management plan to support an athlete with a concussion. Each organization will have different needs and different resources. A CMT of about 4-5 members usually works best. Here are some suggestions for CMT membership.

Administrator

Administrative support is needed to change the culture around sports concussion, put systems in place to manage concussions effectively, and provide the programs necessary to return students to full activity safely.

Athletic Director (AD)

The Athletic Director's leadership is a crucial component of good concussion management. An AD can support coach, athlete, and parent training, promote a culture of awareness, ensure the teaching of safe techniques, ensure proper and well maintained equipment, monitor appropriate incident protocols, promote good officiating, and encourage effective tracking of injuries.

Certified Athletic Trainer (ATC)

Certified athletic trainers (ATCs) are medical experts in preventing, recognizing, managing, and rehabilitating injuries that result from physical activity. An ATC works under the direction of a licensed physician and in cooperation with other healthcare professionals, athletic administrators, coaches, and parents.

Coach

Coaches play a key role in concussion management. They are responsible for pulling an athlete from competition or practice immediately after a concussion. Securing buy-in from the coaching staff is crucial to the success of the return-to-play protocol. Having a coach serve as the liaison between the CMT and the other coaching staff can help ensure that everyone is on board.

School Counselor

The school counselor is an ideal point-person to inform teachers of needed learning accommodations while a student is symptomatic. S/he can provide information about return to activity or refer a student to more formalized supports, such as a 504 plan or IEP.

School Psychologist or Neuropsychologist

Some schools are fortunate enough to have psychologists on staff. School psychologists can help with assessment and test results interpretation. Neuropsychologists have training to interpret more in-depth neurocognitive test results. If you do not such experts on your staff, consider inviting a community resource to your team.

School Nurse

A school nurse can work in conjunction with an athletic trainer, school faculty, counselors, administrators, and the student-athlete's physician and family to provide the best possible healing environment. In the case of a concussion, school nurses need to be able to recognize signs and symptoms, be aware of risks associated with recurrent injury, and make recommendations to student-athletes, parents, and school officials on proper care and recovery.

Teacher

Teachers are critical to student success post-concussion. Teachers need to have a strong understanding of the potential cognitive, behavioral, emotional, and physical symptoms of a concussion. A CMT representative from the teaching staff can work with affected students' teachers to ensure appropriate classroom accommodations.

Parent/Guardian

Consider inviting a parent leader to your team who could be influential with your booster club or athlete parent group.

Student-Athlete

Empowering student-athletes to self-assess symptoms and report them can be a challenge. Consider inviting an influential student-athlete to your team. Help create an atmosphere of acceptance for concussion and encourage athletes to report their own or a fellow athlete's symptoms.

**Team Medical
Provider**

In many schools, the team medical provider is a volunteer from the community who offers services to the school at minimal or no charge. It's important that the provider your school works with is appropriately trained in current knowledge about concussion and the recommended assessment tools. A team's medical provider might be given the final say for return to play.

**Hospital
Healthcare
Professionals**

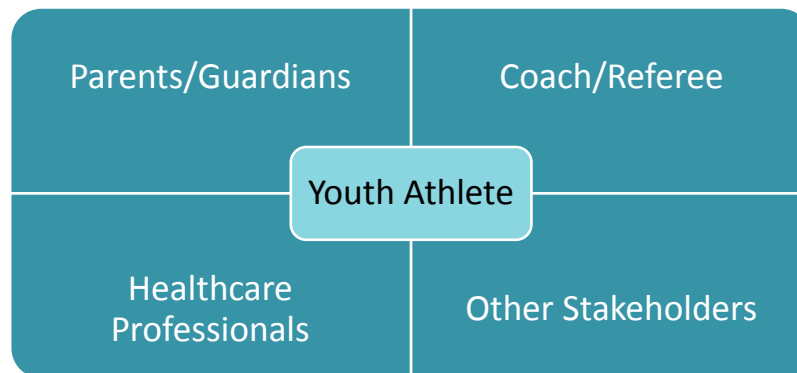
An effective concussion management plan results from a community-wide effort. It is important that schools, sports organizations, and hospital emergency departments build relationships that allow them to share important information about concussions. Local hospitals might be able to help schools with funding for computerized neurocognitive baseline assessment programs, such as ImPACT.

**Community
Healthcare
Professionals**

Pediatricians, family practitioners, and other community healthcare providers need to be included in the conversation about community-wide concussion management. A representative from the local medical community can provide guidance to the CMT on how best to improve knowledge about sports-related concussion among community health care providers

Create a Concussion Management Plan

Youth athletes dealing with the effects of a concussion are best served with a coordinated effort that includes the athlete, parents/guardians, coach/referee, healthcare professional(s), and other appropriate stakeholders. An effective protocol and good communication are two key components to ensure that each athlete in your organization receives optimal support during recovery from a concussion.



Best practice recommends that all youth sports organizations build a protocol and assemble a concussion management team in advance to effectively deal with concussion when it happens. The best protocols are built with all appropriate stakeholders at the table. A protocol can be extensive or simple, but all protocols need to create clear procedures and appoint specific individuals to carry out the protocol plan from the moment a suspected concussion occurs to the day the athlete is safely returned to activity.

Your protocol should ensure the following:

Designated individuals mobilize the plan immediately when concussion is suspected; establish and maintain channels of communication with appropriate stakeholders; and see the plan through until the athlete is safely returned to activity.

Appropriate emergency healthcare professionals are designated and available.

Parents/guardians are notified and given information at the time of suspected concussion and throughout the return-to-academics and return-to-play processes.

Healthcare professionals, parents, coaches, referees, and other stakeholders work together on a return-to-activity plan that includes symptom monitoring and lines of clear, ongoing communication.

Signs and Symptoms of Concussion

These signs and symptoms—following a witnessed or suspected blow to the head or body—are indicative of probable concussion.

Signs (observed by others)	Symptoms (reported by athlete)
<ul style="list-style-type: none">•Appears dazed or stunned•Exhibits confusion•Forgets plays•Unsure about game, score, opponent•Moves clumsily (altered coordination)•Balance problems•Personality change•Responds slowly to questions•Forgets events prior to hit•Forgets events after the hit•Loss of consciousness (any duration)	<ul style="list-style-type: none">•Headache•Fatigue•Nausea or vomiting•Double vision, blurry vision•Sensitivity to light and noise•Feels “sluggish”•Feels “foggy”•Problems concentrating•Problems remembering

Any athlete who exhibits signs, symptoms, or behaviors consistent with a concussion must be removed immediately from the competition or practice and may not be allowed to return to play until cleared by an appropriate healthcare professional.

Post-Concussion Symptom Checklist

Name: _____

Date ____/____/____

Instructions: For each item please indicate how much the symptom has bothered you over the **past 2 days**.

Symptom	None		Mild		Moderate		Severe
Headache	0	1	2	3	4	5	6
Nausea	0	1	2	3	4	5	6
Vomiting	0	1	2	3	4	5	6
Balance problems	0	1	2	3	4	5	6
Dizziness	0	1	2	3	4	5	6
Visual problems	0	1	2	3	4	5	6
Fatigue	0	1	2	3	4	5	6
Sensitivity to light	0	1	2	3	4	5	6
Sensitivity to noise	0	1	2	3	4	5	6
Numbness/tingling	0	1	2	3	4	5	6
Pain other than headache	0	1	2	3	4	5	6
Feeling mentally foggy	0	1	2	3	4	5	6
Feeling slowed down	0	1	2	3	4	5	6
Difficulty concentrating	0	1	2	3	4	5	6
Difficulty remembering	0	1	2	3	4	5	6
Drowsiness	0	1	2	3	4	5	6
Sleeping less than usual	0	1	2	3	4	5	6
Sleeping more than usual	0	1	2	3	4	5	6
Trouble falling asleep	0	1	2	3	4	5	6
Irritability	0	1	2	3	4	5	6
Sadness	0	1	2	3	4	5	6
Nervousness	0	1	2	3	4	5	6
Feeling more emotional	0	1	2	3	4	5	6

Exertion: Do these symptoms worsen with:

Physical Activity	Yes	No	Not applicable
Thinking/Cognitive Activity	Yes	No	Not applicable

Overall Rating: How different are you acting compared to your usual self?

Same as Usual 0 1 2 3 4 5 6 Very Different

Activity Level: Over the past two days, compared to what you would typically do, your level of activity has been _____ % of what it would be normally.

Concussion: Emergency Guidelines

The following situations indicate a medical emergency and require that a student be transported immediately to the nearest emergency room via ambulance (call 911, if available in your area):

Emergency Situations - CALL 911

- An athlete who loses consciousness for any duration
- An athlete who has symptoms of a concussion and is not stable (i.e., condition is changing or deteriorating)
- An athlete who exhibits any of the following symptoms:
 - deterioration of neurological function
 - decreasing level of consciousness
 - decrease or irregularity in respirations
 - any signs or symptoms of associated injuries such as spine or skull fracture or bleeding
 - mental status changes: lethargy, difficulty maintaining arousal, confusion, or agitation
 - seizure activity

Accompany the athlete to the emergency room, if needed, and remain with the athlete until a parent arrives.

The ATC or coach is responsible for informing the parents of the injury and letting them know if the athlete was transported by emergency vehicle or needs to be picked up.

Non-Emergency Guidelines

Never allow an athlete with a suspected concussion to drive home!

- Remove the athlete from play and monitor symptoms.
- Notify the athlete's parents and offer information as mandated by your concussion management plan.
- Notify Concussion Management Team Communication Coordinator.

If parents cannot be reached, and the athlete is able to be sent home:

- Make sure the athlete is with a responsible adult who can monitor the athlete and understand any home care instructions.
- Keep trying to reach a parent.

If parents cannot be reached and there is no responsible adult able to monitor the athlete, the ATC or coach will remain with the athlete until a parent or responsible adult arrives.

- An athlete who is symptomatic but stable may be transported by his or her parents. The parents should be advised to contact the athlete's primary care provider or seek care at the nearest emergency department or urgent care facility on the day of the injury.
- ALWAYS give parents the option of emergency transportation, even if you don't feel it is necessary.

Referring When Away from Home

Athletic trainers and coaches should seek assistance from the host site ATC or team medical provider, if available, at an away contest.