

Post-Concussion and Recovery



Every concussion should be treated individually in accordance with the symptoms an athlete is experiencing and their evaluation results. The following recommendations are made to improve concussion management and safely accelerate the recovery process.

Return to Play

- No athlete with a concussion should continue to play or return to contact play after sustaining a concussion without evaluation to ensure they are symptom free, both at rest and with exercise, and have a normal evaluation.
- Athletes continuing to play, or receiving multiple blows to the head after suffering a concussion, may take longer to recover from a concussion. To avoid repeat injury, it's crucial to manage concussions until complete recovery.
- Research has suggested that light activity in the first week can aid in recovery, with increased exertion as symptoms decrease. Once the athlete is symptom-free with heavy exercise for 2-3 days and their evaluation data has returned to normal, they may be ready to return to play. Prior to return to contact sports, a written release must be obtained from a healthcare provider who is trained to evaluate concussions.
- Safety in Youth Sports Act: UPMC Sports Medicine Concussion Program experts worked with state officials to develop the Pennsylvania Safety in Youth Sports Act. Enacted in 2012, it sets uniform standards for managing concussions and traumatic brain injuries in student athletes. In part, it states that only a licensed physician (MD or DO), licensed neuropsychologist, or other licensed medical professional trained in the diagnosis and management of concussions can treat and release a student athlete to return to play.
 - > To learn more about this act, please visit UPMCSportsMedicine.com/PACConcussionLaw.

Education

- While athletes may notice an increase in their symptoms upon returning to academic work, athletes should return to school fairly quickly following a concussion to avoid undue stress around keeping up with class work.
- Some may require academic accommodations and/or modifications depending on the nature of their symptoms including, but not limited to, extra time on testing, permission to have snacks and drinks in the classroom, ability to take breaks throughout the day, and reduction of overall classwork.
- All sports and health education programs should teach students the specific signs and symptoms of concussions.

Neurocognitive Testing

- This is an important component of concussion management. The use of neurocognitive testing is one piece of the puzzle in assessing recovery from concussions and determining return to play. It should be used as a tool by trained professionals and should not be the only deciding factor in returning a concussed athlete to play. It provides objective data and prevents athletes who hide their symptoms from returning to play before they are fully recovered.
 - > While there are several available tests to help accomplish this, the one with the widest acceptance and largest database is the ImPACT® test. The ImPACT® test is used by the NFL, NHL, and other professional sports organizations.
 - > There are two parts of the test: the post-concussion symptom scale component and the six-part neurocognitive test component. Both components should return to baseline or “normal” before an athlete is allowed to resume playing a contact sport.
 - > Generally, the symptoms of a concussion disappear before the neurocognitive findings return to normal; although, occasionally, this isn’t the case. For example, a patient may have zero symptoms following a concussion but their ImPACT® test takes two weeks to return to normal. It is for these reasons that symptom evaluations cannot be used as the sole criterion for return to play.

Treatment

- Concussion is a treatable injury. With the right team, an individualized treatment plan can be established that actively targets problem areas of the concussion the athlete is experiencing. A concussion assessment includes a symptom scale, neurocognitive testing, and vestibular-ocular screening.
- There are different patterns of symptoms and problems that can arise after concussion. The clinical outcome of a concussion can be greatly improved by being correctly diagnosed and having a treatment plan individually designed for the patient and type of concussion.

Timing and Specialty Care

- These components matter. Recent research shows that athletes who receive specialty care for their concussion earlier recover faster than those who wait, regardless of injury severity. Always seek specialty care as soon as possible after a concussion to help the recovery process.

For more information about the UPMC Sports Medicine Concussion Program’s approach to concussion treatment and recovery, please visit [ReThinkConcussions.com](https://www.rethinkconcussions.com). If you have sustained a concussion and need to seek medical treatment, call 412-432-3681 to schedule an appointment. To learn more about HeadsUP Pittsburgh, visit [PittsburghPenguinsFoundation.org](https://www.PittsburghPenguinsFoundation.org).