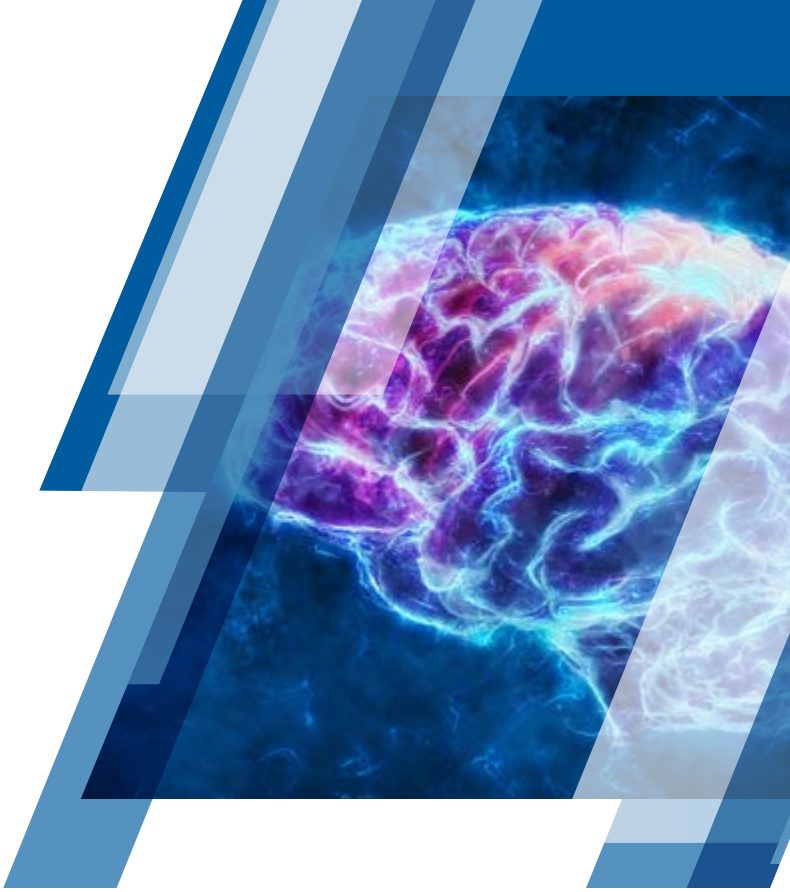
WHAT EDUCATORS NEED TO KNOW

Concussion Safety



What Is a Concussion?

The Consensus Statement on Concussion in Sport, which resulted from the 6th international conference, defines sport-related concussion as follows:

Sport-related concussion is a traumatic brain injury caused by a direct blow to the head, neck or body resulting in an impulsive force being transmitted to the brain that occurs in sports and exercise-related activities. This initiates a neurotransmitter and metabolic cascade, with possible axonal injury, blood flow change and inflammation affecting the brain. Symptoms and signs may present immediately, or evolve over minutes or hours, and commonly resolve within days, but may be prolonged.

No abnormality is seen on standard structural neuroimaging studies (computed tomography or magnetic resonance imaging T1- and T2-weighted images), but in the research setting, abnormalities may be present on functional, blood flow or metabolic imaging studies. Sport-related concussion results in a range of clinical symptoms and signs that may or may not involve loss of consciousness. The clinical symptoms and signs of concussion cannot be explained solely by (but may occur concomitantly with) drug, alcohol, or medication use, other injuries (such as cervical injuries, peripheral vestibular dysfunction) or other comorbidities (such as psychological factors or coexisting medical conditions).

Additional information on concussion diagnosis, management and prevention in collegiate athletes, including a complete definition of concussion, can be found **here**.

What Is Your Role in Concussion Recovery?

- Each athletics department should have a concussion management plan that outlines the steps to be taken by team physicians and athletic trainers following a sport-related concussion diagnosis and during a student-athlete's recovery.
- The concussion management plan should provide for the identification of an academic point person who will navigate return-to-learn activities with a student-athlete who has been diagnosed with a sport-related concussion.
- The return-to-learn pathway is considered part of the suggested medical management plan and, in more complex cases of return-to-learn, the academic point person will be part of a broader multidisciplinary team.
- Return-to-learn should be done in a step-by-step progression that fits the needs of the individual, with adjustments to be made as needed to manage the student-athlete's unique symptoms and recovery response.
- As an academic point person or other member of academic staff, it is beneficial to understand the science underlying concussion management and the rationale behind related return-to-learn considerations.

Specific Return-to-Learn Considerations

Return-to-learn guidelines assume that both physical and cognitive activities require functional brain activity that may be negatively impacted by concussion. The student-athlete may appear physically normal but may be unable to perform as expected due to concussion symptoms.

The unique nature of concussion symptoms and recovery make it difficult to provide prescriptive recommendations for return-to-learn. Importantly, unrestricted return-to-sport should not occur before unrestricted return-to-learn for injuries occurring while the athlete is enrolled in classes. The broad return-to-learn recommendations outlined on the next page are based on available data and related expert consensus, and portions of the content have been previously published by the NCAA as part of its **Concussion Safety Protocol Checklist** and corresponding **Concussion Safety Protocol Template**.

Return-to-Learn Recommendations

Stepwise Progression

The first step of return-to-learn is relative physical and cognitive rest, although complete rest and isolation should be avoided. Relative cognitive rest involves minimizing potential cognitive stressors, such as reading and schoolwork. The necessary period of time that a concussed student-athlete waits before resuming class or homework should be individualized with a return to classroom/studying as tolerated. However, some student-athletes may not require a formal plan or accommodations. Return-to-learn should be gradual with specific attention to any significant worsening of concussion symptoms following cognitive exposure or symptoms lasting longer than two weeks. According to currently available expert consensus:

- If the student-athlete cannot tolerate light cognitive activity, they should remain at home or in the residence hall.
- Once the student-athlete can tolerate light cognitive activity, they should return to the classroom as tolerated, often in graduated increments.
- If the student-athlete experiences prolonged worsening of symptoms with academic challenge (i.e., more symptomatic than baseline), or scores on clinical/cognitive measures decline, the team physician or return-to-learn 'point person' should be notified, and the student-athlete's return-to-learn activity reassessed.

Common Academic Adjustments

For the student-athlete whose academic schedule requires a minor modification in the first one to two weeks following a sport-related concussion, adjustments can often be accomplished through consultation between the student-athlete and the academic point person without material changes to schedules, curriculum or testing environments. Recovery and return-to-learn schedules will vary on a case-by-case basis but the vast majority of young adults have a full return-to-learn with no additional academic support by 10 days post-injury.

Persisting Symptoms

- In the case of persisting symptoms, the extent of necessary academic adjustments/accommodations should be decided in consultation with a broader multi-disciplinary team that may include, among others, the team physician, athletic trainer, faculty athletics representative, coach, teachers, office of disability representatives, neuropsychologist or psychologist/counselor.
- Cases that cannot be managed through schedule or academic accommodations may require the engagement of other campus resources. These resources should be engaged in a manner consistent with the Americans with Disabilities Act Amendments Act and should include learning specialists and/or representatives from the campus office of disability services or ADAAA.

Implementation of Return-to-Learn

The successful implementation of return-to-learn depends on several variables, including the following:

- Recognition that concussion symptoms vary widely among student-athletes, and even within the same individual who may be suffering a repeat concussion.
- Identification of an academic point person who can work with the recovering student-athlete to navigate the challenges that may occur in the academic space.
- Identification of symptoms that may warrant additional medical attention or impair cognitive recovery, such as fatigue, headache, mental health symptoms and disorders, ocular dysfunction, cervical and vestibular dysfunction, cognitive impairment, autonomic dysfunction and pain.
- Identification of additional campus resources that can help assure that the rights of the recovering student-athlete are adequately considered during this transition period.

Available Campus Resources

Campus resources vary, and may include the following:

- Learning specialists. Many college campuses have certified learning specialists who have specialized knowledge of medical conditions such as concussion and post-concussion syndrome.
- Office of disability services. Most campuses have a disability office that is responsible for verifying each student's impairment under the Americans with Disabilities Act Amendments Act and some institutions also offer a separate ADAAA office.