Over the past few years, sports-related concussions in youth have become a very prominent topic in the lay media and in the medical literature. Education and awareness efforts have helped athletes, parents, coaches and health care providers recognize concussions more frequently. While these efforts have improved diagnosis and led to safer return to play (RTP), there has been little attention given to how a young athlete returns to academics. With a lack of evidence-based data on the best way to help a young athlete return to learn (RTL), recommendations are based on expert opinion.

While concussions require an individual approach to management, it is generally accepted that some degree of cognitive rest is important.1-3 Cognitive rest involves avoiding or limiting potential cognitive stressors, such as school and screen time.

It is frequently reported that 80 to 90 percent of concussions resolve within seven to 10 days.4 However, there is literature stating that 20 to 36 percent of young patients will have symptoms 28 days after injury, and 7 to 17 percent will have symptoms three months after injury.4 This highlights...
the opinion that pediatric and adolescent patients with a concussion take longer to recover than adults. Regardless of whether a student-athlete recovers in seven days or six weeks, there needs to be an academic plan to assist with RTL.

There are many aspects of a concussion that can negatively impact a student in the academic setting. Teachers may not understand how these symptoms can affect a student, and teachers may be unaware that their students have had a concussion. In fact, fewer than half of teachers were aware that a student in their class had a mild traumatic brain injury, and even if a teacher knew, academic accommodations were not routinely made.7

If students with a concussion attempt to push through their academic work, there is evidence that this may worsen symptoms and prolong recovery.8,9 The goal of concussion management is to allow the brain to “rest” in order to promote recovery. The degree of cognitive rest needed varies per individual, which does not allow schools to create a one-size-fits-all policy for RTL. Each patient deserves a plan based on guidelines that is then individually tailored to the situation.

The remainder of this article reviews how RTL is managed through the Concussion Clinic at Children’s Hospital of Wisconsin, a program based on expert opinion, experience and the REAP (Reduce, Educate, Accommodate, Pace) Guidelines developed in Colorado.10

I encourage each school to have a handful of teachers and administrators who can help coordinate the academic care plan for concussed students. Ideally, this school team will receive regular education on concussions and RTL concepts. The school team can then use their experience and familiarity with the school rules and teachers to create a unique RTL plan for each injured student. They would be in communication with the medical team to provide feedback on performance and symptoms while in school, which can improve medical decision-making and management. The school team also would communicate with the family to ensure that there are no concerns from the student or parents about academics.

Unfortunately, most schools do not have a school team in place; many have not even considered it. In those situations, health care providers are encouraged to partner with the school to develop this program. In the meantime, detailed notes should be given to parents at each visit with RTL recommendations and activity limitations. Parents should be encouraged to contact a school guidance counselor, principal or academic liaison to help implement an appropriate RTL plan. Regardless of how the RTL plan is implemented, each school should regularly monitor the effectiveness and adjust the plan as the student improves or if the student needs more assistance.

Health care providers are encouraged to use the term “academic adjustments” to refer to voluntary adjustments that the school can make to help a concussed student RTL. Patients who require assistance for more than a month are said to require “academic accommodations.” While prolonged or more permanent changes are termed “academic modifications,” such as an IEP or 504 Plan.

Some students may need to be kept out of school immediately following a concussion in order to help them rest and begin recovering. However, prolonged absence can lead to serious repercussions, such as reduced social acceptance, changes in peer relationships, academic difficulty and development of anxiety and depression.11 I recommend that concussed students do not miss more than five days of classes.
It is important to remember that concussed students often appear physically normal, as opposed to a student in a cast. When concussed students return to school, teachers and school personnel often assume those students are no longer symptomatic because of their normal appearance. Unlike RTP, an injured student does not need to be 100 percent to RTL.

If an injured student cannot concentrate (reading or academic work) for more than 10 minutes without symptoms, he or she should rest at home with no screen time. If symptoms arise after 20 minutes, the student can do light mental activity from home if it does not provoke symptoms. If an injured student can concentrate for 30 minutes before symptoms arise, then it is time to consider RTL with academic adjustments.

Recovering students may need to return at partial days and gradually increase back to full school days as allowed by symptom improvement. Scheduled 10 to 15 minute breaks every hour or so can give some downtime to decrease symptoms and keep a student at school for more time.

Academic adjustments should include removal from physical education class and recess until completely recovered. Other classes that may exacerbate symptoms should be limited or restricted. For students with photosensitivity, computer classes should be limited. For phonophobia, choir or band classes should be avoided, and consideration also should be given to removal from the noisy lunchroom. Driver’s education and technical education (shop) classes should be avoided until fully recovered.

Injured students will need academic adjustments that decrease the workload in class. The focus for learning should be the key concepts or most important parts of a lesson. Reducing and eliminating homework is helpful, increasing as the student improves. Eliminating large projects and group projects can be helpful. For instance, instead of a 30-minute presentation on the Civil War, a timeline of Civil War events is more reasonable. Tests and quizzes also should be eliminated or postponed. Some students may benefit from take-home tests, open-book tests or oral testing. Standardized testing should be eliminated or postponed until fully recovered. Preprinted notes, easy access to tutoring and extra time to complete any assignments are helpful RTL adjustments.

I discourage athletes from attending practices or social gatherings at school unless they can attend school for a full day and attendance does not negatively impact academics. Concussed students should be allowed to consider a return to physical education class, recess and athletics only when symptom-free, off medications, back to normal classwork and medically cleared.

Most concussed students are unable to maintain their academic performance while injured. Without a solid and organized plan of academic adjustments for RTL, concussed students are more likely to have emotional distress regarding academic performance. Stress is felt to be a cognitive stimulus that will negatively impact recovery from concussion. Stress alone can lead to further academic dysfunction (poor concentration and focus), which may lead to worse academic performance, compounding stress and prolonging recovery. High school students will begin to worry about college standards and may begin to become anxious or depressed over performance. The goal of a good RTL plan is to allow injured students to recover with as little emotional and academic harm as possible.
For more information, visit chw.org/sportsmedicine

REFERENCES