Developing a Return to Learn Policy

Return-to-learn (RTL) polices are centered on scientific evidence-based practices consistent with the Centers for Disease Control and Prevention (CDC) guidelines. Although school environments differ, RTL policies should be evaluated and reviewed prior to and after a concussion incident to provide consistent delivery of learning. Each student will recover differently after a concussion; therefore, the RTL plan should be adjusted to meet the needs of the student.

A few facts:

- Schools can lack RTL policies, proper communication channels, and have barriers to provide accommodations.
- Large classrooms are challenging to provide accommodations for an individual student.
- Excessive academic expectations when returning to school provide a barrier to learning.
- Lack of professional development contributes to poor academic outcomes for postconcussion students.
- Students with difficulty remembering are 1.8 times more likely to have academic problems.
- Student who report vision issues are 2.5 times more likely to have academic problems.
- Student enrolled in more intense courses (AP, Honors) have longer symptom recovery periods.
- Teachers have reported a lack of training on academic accommodations and needing more information on concussions.
- Teachers have reported not having a copy of the school or district RTL plan.

Return-to-School vs Return-to-Learn:

Return-to-school (RTS) and RTL are two individual components viewed within the RTL plan.

- RTS focuses on the student readjusting to the school environment. Classroom setting, noise, lighting, passing periods, and daily school activities are all aspects of RTS.
- RTL is the restoration of learning through course material and cognitive activity. Reading, studying, course projects, taking notes, performing tasks/computer work are components involved in active learning.
- Cognitive functions of concentration, focusing and memory are also part of active learning.
- RTL focuses on comprehension of course content and restoring academic performance to pre-injury levels.
- RTL is not a checks and balance system used to complete missed assignments and homework.

Concussion Management Team:

The Concussion Management Team (CMT) are selected individuals responsible for the well-being, both academically and physically, of the student.

• CMT members shall include, but not limited to: school administrator, athletic director, designated teacher, licensed school counselor, licensed athletic trainer (if the licensed athletic trainer is employed by the school or assigned to the school by an employing entity), and nurse (if the school employs a nurse).

- The CMT plays a vital role in establishing effective lines of communication within the school.
- Schools shall appoint a CMT designee to supervise the person responsible for compliance with the return-to-play (RTP) protocol and shall supervise the person responsible for compliance with the RTL plan. The person who has supervisory responsibilities under the CMT may not be a coach of an interscholastic team.
- The designee is the primary contact person to disseminate information, recommendations, provide medical updates, information for accommodations, relay issues or concerns between CMT members.
- Overall, the CMT continually works with school personnel to provide appropriate academic support for the student.

Concussion Education:

Concussion education for school personnel is an important platform to further knowledge, understanding educational roles within the school, and serves as a means to implement effective concussion management strategies in the classroom.

- Regular, continuing education and professional development has been shown to lessen the chance of poor outcomes for post-concussion students.
- Concussion education can help reduce excessive academic expectations that often become a barrier to an effective RTL plan.
- The focus of the RTL plan is on comprehension of the material, not making up assignments.
- Developing concussion education programs focusing on RTS and RTL may help relieve many apprehensions that school personnel have with post-concussion students.

School Triggers:

School-related triggers are those activities which produce concussion symptoms. Typical symptoms center around four areas: cognitive, physical, emotional, and sleep.

- Cognitive issues reflect concentration, focusing, and memory problems that last from a few days to several weeks. Students have more challenges with difficulty remembering than other cognitive abilities.
- Physical symptoms refer to headache, dizziness, nausea, balance, sensitivity to light/noise, and can also include vision. Headaches and sensitivity issues are quite common after a concussion; however, there has been more research studies linking learning challenges and vision problems for students.
- Vision problems like blurred vision, double vision, and or loss of place when reading (eye tracking) are all typical vision symptoms and can more than triple after a concussion.
- Emotional reactions like irritability or sadness which can change in short periods of time.
- Sleep patterns can also be deviated away from normal sleep cycles contributing to daytime drowsiness and fatigue. Reduction of school-related triggers can often be improved through proper academic and classroom accommodations, providing a better opportunity for learning.

Accommodations:

Special accommodations are necessary in some cases in order to successfully reintegrate back into the classroom setting. Accommodations are divided into both academic and classroom, which is similar to RTL and RTS.

- Academic accommodations focus on modifying course or learning objectives such as reduced course workload, shorten assignments, lessen remedial course work, and divide larger projects into smaller units.
- Classroom accommodations center on removing the student from sensitive areas of light and noise, allowing the student to wear sunglasses to shield bright light, move the student away from non-shaded windows, draw shades or dim room lights in the classroom and allow front row seating to see clearly.
- Additional accommodations consist of prioritizing the student's class schedule by having them first return to classes that limit school-related triggers. Students should first return to classes low in cognitive functions (e.g. art courses, family consumer sciences, etc.).
- Classes posing greater challenges like Mathematics, Sciences (e.g. Chemistry, Biology), Social Studies, English and Foreign Language have higher cognitive functions and could take longer to recover.
- Developing a RTL plan with specific accommodations can provide the student with less challenges as they work back into full academic activities without accommodations.

Communication:

Communication between school personnel, parents and the student is a key component to student learning success. The CMT designee should actively communicate with all parties to ensure accurate information is being provided.

- Dissemination of RTL and RTS information from medical personnel to the teachers.
- Teachers should communicate any possible school triggers produced in their class.
- Successful and unsuccessful accommodations should be communicated.
- Some classes will not be attended at first (e.g. math, science, PE, etc.).
- RTL is about comprehension of material, not make-up work.

Cognitive Rest:

Recent research has changed perspectives involving cognitive rest.

- Students experiencing concussion symptoms may need to stay home for a few days.
- Student not experiencing concussion symptoms may return to school either in a modified format or regular school.
- Concussion symptoms guide restrictions on reading, computers, texting, and learning activities.
- Non-sport/athletics limited sub-symptom threshold supervised physical activity can aid in reducing extended concussion symptoms.
- Gradual return to normal learning activities as guided by concussion symptoms.
- Challenging post-concussion classes:
 - o Mathematics
 - o Science (Biology and Chemistry)
 - o English (Language Arts)
 - Social Studies

o Foreign Language

Return to Learn Strategies:

There are different RTL plans which focus on similar objectives, most of all, returning the student in a progressive or graduated plan to not reproduce school triggers. Concussion plans should be individualized to meet specific learning objectives and have in place academic accommodations to support the student's learning plan.

Sample 1. Gradated Return-to-Learn Strategy

Stage	Aim	Activity	Goal of Each Step
1	Daily activities at	Typical activities of the child	Gradual return to typical
	home that do not	during the day as long as they do	activities
	give the child	not increase symptoms (e.g.	
	symptoms	reading, texting, screen time).	
		Start with 5-15 minutes at a time	
		and gradually build up	
2	School activities	Homework, reading or other	Increase tolerance to
		cognitive activities outside of the	cognitive work
		classroom	
3	Return to school part	Gradual introduction of	Increase academic
	time	schoolwork. May need to start	activities
		with a partial school day or with	
		increased breaks during the day	
4	Return to school full	Gradually progress school	Return to full academic
	time	activities until a full day can be	activities and catch up on
		tolerated	missed work

McCrory et al. (2017) Consensus statement on concussion in sport-the 5th international conference on concussion in sport held in Berlin, October 2016. *British Journal of Sports Medicine*, 51(11), p. 1-10.

Sample Regular Class Schedule

Days/Times	Monday	Tuesday	Wednesday	Thursday	Friday
8:00am	English	English	English	English	English
9:05am	Math	Math	Math	Math	Math
10:10am	History	History	History	History	History
11:15am	Art	Art	Art	Art	Art
12:20pm	Lunch	Lunch	Lunch	Lunch	Lunch
1:25pm	Biology	Biology	Biology	Biology	Biology
2:30pm	Foreign	Foreign	Foreign	Foreign	Foreign
_	Language	Language	Language	Language	Language
3:35pm	Sports	Sports	Sports	Sports	Sports

Sample Post-Concussion Revised Class Schedule

Days/Times	Monday	Tuesday	Wednesday	Thursday	Friday
8:00am	No Class	No Class or	English	English	English
		return to			
		English			
9:05am	No Class	No Class	No Class or	Math	Math
			return to Math		
10:10am	History	History	History	History	History
11:15am	Art	Art	Art	Art	Art
12:20pm	Lunch	Lunch	Lunch	Lunch	Lunch
1:25pm	Tutor	Tutor	Tutor	Biology	Biology
	(Library)	(Library)	(Library)		
	Session	Session	Session		
2:30pm	Tutor	Tutor	Tutor	Foreign	Foreign
	(Library)	(Library)	(Library)	Language	Language
	Session or	Session or	Session or		
	return home	return home	return to		
			Foreign		
			Language		
3:35pm	Sports-No	Sports-No	Sports-No	Sports-No	Sports-No
	Activity	Activity	Activity	Activity or	Activity or
				begin active	begin active
				recovery	recovery
				program	program

References:

- Baker, J. G., Leddy, J. J., Darling, S. R., Rieger, B. P., Mashtare, T. L., Sharma, T. & Willer, B. S. (2015). Factors associated with problems for adolescents returning to the classroom after sport-related concussion. *Clinical Pediatrics*, *54*(10), 961-968.
- Carson, J. D., Lawrence, D. W., Kraft, S. A., Garel, A., Snow, C. L., Chatterjee, A.,...Frémont, P. (2014). Premature return to play and return to learn after a sport-related concussion. *Canadian Family Physician*, 60, e310-e315.
- Centers for Disease Control and Prevention (2017). Returning to School After a Concussion: A Fact Sheet for School Professionals. Retrieved from https://www.cdc.gov/headsup/pdfs/schools/tbi_returning_to_school-a.pdf
- Dettmer, J., Ettel. D., Glang, A. & McAvoy, K. (2014). Building statewide infrastructure for effective educational services for students with TBI: Promising practices and recommendations. *Journal of Head Trauma Rehabilitation*, 29(1), 224-232.

- Heyer, G. L., Weber, K. D., Rose, S. C, Perkins, S. Q. & Schmittauer, C. E. (2015). High school principals' resources, knowledge, and practices regarding the returning student with concussion. *The Journal of Pediatrics*, 166(3), 594-599.
- Lumba-Brown, A., et al., (2018). Centers for disease control and prevention guideline on the diagnosis and management of mild traumatic brain injury among children. *JAMA Pediatrics*, e1-e13.
- Lyons, V. H., et al. (2017). Strategies to address unmet needs and facilitate return to learn guideline adoption following concussion. *Journal of School Health*, 87(6), 416-426.
- Master, C. L., et al. (2015). Vision diagnosis are common after concussion in adolescents. *Clinical Pediatrics*, 55(3), 260-267.
- Master C., Gioia G., Leddy J., Grady M. (2012). Importance of 'return-to-learn' in pediatric and adolescent concussion. *Pediatric Annals*, 41(9), e180-e185.
- McAvoy, K., Eagan-Johnson, B., & Halstead, M. (2018). Return to learn: Transitioning to school and through ascending levels of academic support for students following a concussion. *NeuroRehabilitation*, 42(3), p. 325-330.
- McCrory, P., et al. (2017) Consensus statement on concussion in sport-the 5th international conference on concussion in sport held in Berlin, October 2016. *British Journal of Sports Medicine*, 51(11), p. 1-10.
- Nationwide Children's Hospital: An educator's guide to concussions in the classroom. 3rd ed. (2012).
- Ransom, D. M., Vaughn C. G., Pratson, L., Sady, M. D., McGill, C. A. & Gioia, G. A. (2015). Academic effects of concussion in children and adolescents. *Pediatrics*, 135(6), 1043-1050.
- Romm, K. E., et al. (2018) Schoolteachers' and administrators' perceptions of concussion management and implementation of return-to-learn guideline. *Journal of School Health*, 83(11), 813-820.
- Swanson, M. W., et al. (2017). Academic difficulty and vision symptoms in children with concussion. *Optometry and Vision Science*, 94(1), 60-67.