RETURN TO LEARN

A Guide for School Professionals



Institute for Sports Medicine

Return to Learn

With the increasing prevalence of concussions, specific protocols for returning a student to learning after concussions occur are essential.

Because students typically appear well physically after a concussion, educators, school administrators, and peers may not fully appreciate the extent of symptoms and deficits experienced by a student with a concussion.

The lack of outward physical symptoms of illness may make it difficult for school officials to recognize the need for accommodations for a student with a concussion.

What is a concussion?

A concussion is a type of brain injury resulting from a bump, blow, or jolt to the head that causes the head and brain to move rapidly back and forth.

A direct blow to the head is not required to cause a concussion; this type of injury can result from a hit to the body that transmits force to the head.

The sudden, forceful movement can cause the brain to bounce around or twist in the skull, stretching or damaging the brain cells and causing chemical changes in the brain.

What is a concussion?

Concussions affect people differently. Most students experience symptoms lasting for a few days or weeks. With a more serious concussion, symptoms may last months or even longer.

Additionally, research has suggested age plays a role in recovery. Younger students tend to experience more prolonged symptoms than older students. Thus, it is important not just for high schools but for elementary and middle schools to have return-to-learn protocols that provide academic staff with guidance about how to provide appropriate classroom and learning plan accommodations for students with concussions.

Though a concussion may seem to be an 'invisible injury', a concussion can affect a student in many different ways: physically, cognitively, emotionally and with sleep.

Physical Symptoms

Physical	Cognitive	Emotional	Sleep
Headache	Feeling mentally foggy	Irritability	Trouble falling asleep
Dizziness	Feeling slowed down	Sadness	Sleeping more than usual
Balance difficulties	Difficulty concentrating	Nervousness	Sleeping less than usual
Nausea/Vomiting	Difficulty remembering	More emotional than usual	Drowsy
Fatigue	Difficulty focusing		Altered sleep schedule
Sensitivity to light			
Sensitivity to noise			

Concussion symptoms can significantly impact both learning and schoolwork.

Physical symptoms such as headache, dizziness, and visual changes, may interfere with the student's ability to focus and concentrate.

Cognitive symptoms may impact the ability of the student to learn, memorize and process information as well as keep track of assignments and tests.

Struggling with schoolwork may actually cause symptoms to increase. Students may experience feelings of frustration, nervousness and/or irritability both as a direct result of concussion and due to resulting academic difficulties.

Disturbances in sleep patterns often result in fatigue and drowsiness during the day. Inadequate sleep can increase the magnitude of symptoms the student may experience

Knowledge about the potential effects of concussions on learning, and appropriate management of the return-to-learn process, is critical for helping students recover from a concussion.

Assessing problems with learning and school performance, and then making appropriate and necessary changes to a student's learning plan is a collaborative effort between the student's physician and the academic leaders at his/her school.

Therefore, it is appropriate for the school to address learning difficulties caused by a concussion.

Concussions are both a medical and educational concern.

It is important to note, recovery from a concussion is an individualized process. Caution must be taken not to compare students suffering from concussions.

Because every brain and every student are different, every concussion is different. Some students may not miss any school and may need few accommodations, similar to someone suffering from a minor illness. Others may endure months of symptoms that can significantly impact academic performance and require extensive accommodations at school.

The severity of a concussion is measured by how long the symptoms last. Thus, it is not possible to know how severe a concussion is until the student is fully recovered.

A student's best chance for a full recovery from a concussion depends on timely implementation of two critical components: cognitive and physical rest.

There is increasing evidence that using a concussed brain to learn may worsen concussion symptoms and prolong recovery.

The goal during concussion recovery is to avoid overexerting the brain to the level of triggering or worsening symptoms. Determining the appropriate balance between the amount of cognitive exertion and rest is the hallmark of the management plan and crucial for facilitating recovery.

This balance is different for each concussion. Therefore, an individualized plan for accommodations is required, and should be frequently monitored and updated to allow for the student to progress academically as concussion symptoms improve.

Slower processing speed

Lapses in short term memory

Reduced/impaired concentration

Slower to learn new concepts

Shorter attention span

More difficulty planning, organizing and completing assignments

Slower reading

Difficulty with reading comprehension

Elementary School

Compared to older students, elementary aged children are more likely to complain of physical problems or misbehave in response to cognitive overload, fatigue and other concussion symptoms

Middle School

Peer relations are very important to middle school students. They can be extremely sensitive to being different. Middle school students may try to minimize symptoms so as not to stand out.

At this level, executive functioning such as goal setting and planning ahead is in greater demand. Therefore, organizational problems may have a greater impact on academic performance.

High School

High school students are often very busy.

Many students are enrolled in advanced classes and have one or more extra-curricular activities.

Therefore, prioritizing activities and reducing overall demands becomes especially important with the high school student in order to reduce concussion symptoms.

When is a student ready to return to school after a concussion?

A student with a concussion should be evaluated by a licensed healthcare professional who has experience managing concussions for guidance about when it's safe to return to school as well as recommended appropriate levels of cognitive and physical activity throughout the recovery process.

Providing appropriate support for a student returning to school after a concussion requires a collaborative team approach:

Examples of a Multidisciplinary Team to Facilitate "Return to Learning"

School Academic Team

Teacher School Counselor School Psychologist Social Worker School Nurse School Administrator Emergency Department
Primary Care Provider
Concussion Specialist
Clinical Psychologist
Neuropsychologist
Athletic Trainer Team
School Physician
School nurse

Medical Team

amily Tean

Student
Parents
Guardians
Grandparents
Peers
Teammates
Family & Friends

School Nurse Athletic Trainer Coach Physical Education Teacher Playground/Recess Supervisor

School Physical Activity Team

Return to Learn Team

It is important for the school leaders to identify a school staff member on the concussion management team who will function as a case manager or concussion management leader, such as a school nurse, athletic trainer, school counselor or other identified school professional.

This person will have the role of advocating for the student's needs and serve as the primary point of contact with the student, family, and all members of the concussion management team.

The case manager is responsible for ensuring all are informed and understand how to implement the student's accommodations.

Return-to-Learn Framework

The student should report to the case manager daily in order to monitor symptoms and assess how the student is tolerating the accommodations (a symptom checklist is recommended), as well as assess how staff are implementing the modified learning plan.

As the student's recovery progresses through the outlined phases, teachers should be prepared to apply "mastery learning" criteria within their subject matter.

By identifying essential academic work, teachers can facilitate recovery by reducing the student's anxiety levels related to perceived volume of work that will be required once he/she is medically cleared to resume a full academic load.

Phases of the Return to Learn Protocol

Phase 1: No School/ Complete Cognitive Rest

Symptom Severity: In this phase, the student may experience high levels of symptoms that at best prohibit the student to benefit from school attendance and may cause symptoms to increase in intensity. During this stage, physical symptoms tend to be the most prominent and may interfere with even basic tasks. Many students are unable to tolerate being in the school environment due to severe headache, dizziness or sensitivity to light and noise.

Treatment: Emphasis on cognitive and physical rest to allow the brain and body to rest as much as possible.

Phase 1: No School/ Complete Cognitive Rest

Intervention Examples:

- No School
- Avoid activities that exacerbate symptoms. Activities that commonly trigger symp toms include reading, video games, computer use, texting, television and/or loud music
- Other symptom "triggers" that worsen symptoms should be noted and avoided in the effort to promote healing
- No physical activity- this includes anything that increases the heart rate as this may worsen symptoms
- No tests, quizzes or homework
- Provide students with copies of class notes (teacher or student generated)

Phase 2: Part-Time School Attendance with Accommodations:

Symptom Severity: In this phase, the student's symptoms have decreased to manageable levels. Symptoms may be exacerbated by certain mental activities that are complex, difficult or of long duration. Often students can do cognitive activities but only for very short periods of time (5-15 minutes) so they will need frequent breaks to rest and "recharge their batteries."

Treatment: Re-introduction to school. Avoid settings and tasks that trigger or worsen symptoms. In the first few days of returning to school the goal is not to immediately start catching up on the missed work or learn new material. Rather the initial goal is simply to make sure the student can tolerate the school environment without worsening symptoms. This means the first few days often include just sitting in class and listening (no note taking or reading). Once the student can tolerate this, he/she can try short intervals (5-15 minutes) of cognitive work per class.

Phase 2: Part-Time School Attendance with Accommodations:

Intervention Examples:

Part-time school attendance, with focus on the core/essential subjects and/or those which do not trigger symptoms; prioritize what classes should be attended and how often. Examples: (1) half-days, alternating morning and afternoon classes every other day; or (2) attending every other class with rest in the nurse's office, library or quiet location in between.

- Symptoms reported by student should be addressed with specific accommodations
- Eliminate busy work or non-essential assignments or classes
- Limit or eliminate "screen time" (computers, phones, tablets, smart boards), reading and other visual stimuli, based on the student's symptoms
- Provide student with copies of class notes (teacher or student generated)
- No tests or quizzes.
- Homework load based on symptoms. There should be no due dates on homework assignments. This allows students to work at a pace that does not exacerbate symptoms and reduces their anxiety about completing assignments. Many students have heightened anxiety during concussion recovery and due dates exacerbate this.
- Allow to leave class 5 minutes early to avoid noisy, crowded hallways between class changes.
- No physical activity including gym/recess or participation in athletics
- If this phase becomes prolonged and/or the student is unable to tolerate the school environment or do any work for even short periods of time, a tutor can be helpful (either in school or at home) to implement oral learning at a pace that does not worsen symptoms. A tutor can also help students organize their work and plan how they will spend their limited time studying (i.e. which assignments should I do first, second, third, etc), as many students are unable to do this basic "executive function" task during concussion recovery.

Phase 3: Full-Day Attendance with Accommodations:

Symptom Severity: In this phase, the student's symptoms are decreased in both number and severity. They may have intervals during the day when they are symptom-free. Symptoms may still be exacerbated by certain activities.

Treatment: As the student improves, gradually increase demands on the brain by increasing the amount, length of time, and difficulty of academic requirements, as long as this does not worsen symptoms.

Phase 3: Full-Day Attendance with Accommodations:

Intervention Examples:

- Continue to prioritize assignments, tests and projects; limit students to one test per day with extra time to complete test and allow for breaks as needed based on symptom severity
- Continue to prioritize in-class learning; minimize overall workload
- Gradually increase amount of homework
- Reported symptoms should be addressed by specific accommodations; Accommodations are reduced or eliminated as symptoms resolve
- No physical activity unless specifically prescribed by the student's physician or health care provider. If the student has not resolved their symptoms after 4-6 weeks, health care providers will often pre scribe light aerobic activity at a pace and duration below that which triggers symptoms. This "subsymptom threshold exercise training" has been shown to facilitate concussion recovery. The student can do this at school in place of their regular PE class, by walking, riding a stationary bike, swimming, or jogging. No contact sports are allowed until the student is completely symptom-free with full days at school with no accommodations, and has received written clearance from a licensed health care professional.

Phase 4: Full-Day Attendance without Accommodations:

Symptom Severity: In this phase, the student may report no symptoms or may experience mild symptoms that are intermittent.

Treatment: Accommodations are removed when the student can participate fully in academic work at school and at home without triggering symptoms.

Phase 4: Full-Day Attendance without Accommodations:

Intervention Examples:

- Construct a reasonable step-wise plan to complete missed academic work; an extended period of time is recommended in order to minimize stress
- Physical activities as specified by the student's physician (same as Phase 3)

Phase 5: Full School and Extracurricular Involvement:

Symptom Severity: No symptoms are present. The student is consistently tolerating full school days and typical academic load without triggering symptoms.

Treatment: No accommodations are needed

Phase 5: Full School and Extracurricular Involvement:

Interventions:

Before returning to physical education and/or sports, the student should receive written clearance and complete a step-wise return-to-play progression as indicated by their licensed healthcare professional.

Class/Subject Accommodation Examples:

History:

Books on Audiotape

Provide detailed class notes to allow student to listen and not be consumed with note-taking during class Oral discussion for learning and oral test-taking preferred to written work

Language Arts, English & Writing:

Books on Audiotape

Reduce overall amount of written and typed assignments as screens and annotating may be bothersome to the concussed student. Speech-to-text software programs can be helpful for writing papers and annotating Oral discussion for learning and oral test-taking is preferred to written work

Math:

Reduce homework assignments to the least amount possible to demonstrate mastery learning concept Provide outline of necessary steps to complete problem (concussed students often experience difficulty remembering and may leave out pertinent steps)

Student should be given extra time to complete in-class assignments and homework Oral discussion for learning and oral test-taking preferred to written work

Science:

Books on Audiotape

Detailed class notes to allow student to listen and not be consumed with note-taking during class Hands-on learning may be helpful

Oral discussion for learning and oral test-taking preferred to written work Speech-to-text software programs can be helpful for writing lab reports and assignments

Additional Specific Accommodation Examples:

Extending time on testing and assignments to allow for slower processing speed especially if there is a significant reading demand.

Students recovering from concussion have limited endurance and therefore can only attend to a task for short intervals (5-15 minutes) before triggering symptoms. Symptoms are not just limited to physical symptoms. If there is a lack of comprehension despite 2 or 3 attempts, even without a headache, the student should take a break.

Providing a quiet room for testing to minimize distraction.

Offering preferential seating (usually in the front of class or away from windows) to minimize distraction and allow better monitoring of the student.

Class information and corresponding assignments should divided into manageable chunks to minimize cognitive load.

Additional Specific Accommodation Examples:

Reduce light sensitivity by allowing the student to wear sunglasses in class

Allow breaks every 15 minutes for prolonged reading or screen time

Allow the student to eat lunch in a quiet location

Avoid assemblies, pep rallies, athletic events and other events with loud noise and/or bright lights

If concussion symptoms increase, it usually means the student is reaching a point of overexertion and needs a break.

Some students may only need periodic breaks throughout the school day while others may need more frequent breaks depending on the severity of symptoms.

Follow-Up Interview:

Students are encouraged to meet with their case manager regularly to discuss progress, grades and status of make-up work.

Additionally, the student's case manager or concussion management leader should conduct an exit interview with the student no earlier than one week after he/she returns to full academic activity.

Ensuring a Student's Return to Learning is Successful:

Education of all school staff about the goals of academic concussion management is essential to reduce the likelihood of a child suffering permanent damage to his/her academic record due to a concussion.

Educate school staff about how concussions affect academic learning. Schools should take steps to ensure their staff understands the institutional or district procedures regarding return-to-learn policy.

Distribute written responsibilities and expectations to each member of the concussion management team. Taking the time to explain the process to each team member prior to initiating a student's management plan will likely lead to better compliance.

Emphasize that each team member has an important role and responsibility.

Inadequate participation from one member can derail the whole return-to-learn plan.

Privacy:

The return-to-learn team should recognize that communication is essential for the success of the management plan. However, they should be aware that a student's medical and academic information is considered private and is protected by the Health Insurance Portability and Accountability Act (HIPAA) and the Family Educational Rights and Privacy Act (FERPA).

The team should have a clear understanding of who is allowed to receive information regarding a student's medical and academic status. Team members should only discuss what is absolutely necessary to manage a student's return-to-learn plan.

The student's parent or guardian must complete a Release of Medical Information (ROMI) if they would like the physician to speak with school staff about the student's medical care and provide guidance about how to implement the recommended accommodations. This release can be signed at the physician's office.

Documentation:

The case manager should take care to document the specifics of the learning plan, noting the dates when changes are made and the student's response in terms of symptoms. He/she should also record any instances where the student, parent, or school staff do not follow the recommended accommodations. This documentation should be kept in a secure file as directed by school policy.

Concussion symptoms are unfortunately subjective in nature, and therefore, it can be difficult to know when a student is reporting symptoms accurately.

Communication among team members will help identify students who may be exaggerating symptoms. If a concern about the legitimacy of the student's complaints arises, a meeting with all involved parties should be held to discuss the situation and determine the appropriate course of action. In these instances, direct communication between the return-to-learn team and physician is very useful.

Formal Support Services:

For students with prolonged symptoms who will require accommodations for several months, a formalized program may be implemented to ensure that a student's specific educational needs are being met by the school. Parents can work with school leaders to develop a 504 Plan or Individualized Education Program (IEP).

The process is time intensive and requires extensive documentation, but does provide a legal document that describes the specific educational goals for the student and the accommodations necessary to achieve them. Private schools that do not receive state funding are not legally obligated to abide by these plans.

The majority of students with a concussion will not require a 504 or IEP; however, a small percentage of students with chronic cognitive or emotional deficits may require this level of support.

504 Plan:

Students with persistent symptoms and who require assistance to participate fully in school may be candidates for a 504 plan.

A 504 plan will describe modifications and/or accommodations necessary to assist a student return to pre-concussion performance levels.

For example, it may specify that the student receive environmental adaptations, temporary curriculum modifications and/or behavioral strategies.

Individualized Education Plan:

Students with certain classifications of disability that adversely impact educational performance may be eligible for an IEP.

These students generally require significant help to access the curriculum.

This help may include reducing the student's workload, changing the learning method (e.g. working with a tutor), slowing the pace of instruction, or allowing the student to work in an environment other than the inclusive classroom

Example of School Accommodation form provided by a Licensed Healthcare Professional: (IEP):

SCHOOL RECOMMENDATIONS

Date of Eval	uation:						
Provider's Si	gnature:						
school today	due to a medical appoint		at the	under our care. Please excuse the patient from following recommendations be implemented t			
	lowing academic recomi			thru			
<u>Attendance</u>			Breal	<u>u</u>			
No school for	No school forschool day(s)			Allow student to go to the nurse's office if			
	ance for scl		sy	mptoms increase			
Full school days	Full school days as tolerated			llow student to go home if symptoms do not			
Tutoring homebo	ound/in school as tolerat	ed	su	bside			
No school until so in symptoms	mptom free or significa	nt decrease					
Visual Stimulus			<u>Audil</u>	ole Stimulus			
Allow student to	wear sunglasses in scho	ol	Allow student to leave class 5 minutes early to				
Pre-printed note	s for class material or no	te taker	avoid noisy hallway				
No smart boards	No smart boards, projectors, computers, TV screens			Lunch in a quiet place			
or other bright screen			Audible learning (discussions, reading out loud,				
Enlarged font when possible			if possible text to speech programs or Kindle)				
Workload/Multi-Tas	king		Testi	ng			
_	mount of make-up work	, class work	☐ No testing				
and homework when possible			Extra time to complete tests				
No homework			No more than one test a day				
Limit homework to minutes a night			Oral testing				
Prorate workload	d when possible		<u></u> 0	pen book testing			
Physical Exertion			_	tional Recommendations			
No physical exer				ther:			
Begin return to p to gym or athleti	lay protocol prior to reto cs	urning					
Current Symptom Li	st (the patient is complaining	today of)					
Headache	Difficulty concentrating	Sensitivity to light		☐ Trouble falling asleep			
	Difficulty remembering	Sensitivity to noise		☐ Drowsiness			
	Feeling slowed down	Feeling more emotion	al	Sleeping less than usual			
	Feeling mental foggy	Irritability		Sleeping more than usual			
	Balance Problems						

Example of School Accommodation form provided by a Licensed Healthcare Professional:

SCHOOL RECOMMENDATIONS

The academic accommodations may help in reducing the cognitive (thinking) load, thereby minimizing post-concussion symptoms and allowing the student to better participate in the academic process during the injury period. Needed accommodations may vary by course. The student and parent are encouraged to discuss and establish accommodations with the school on a class-by-class basis. The student and parent may wish to formalize accommodations through an IEP or 504 Plan if symptoms persist following treatment and less formalized accommodations.

Testing: Students with a concussion have increased memory and attention problems. They will not be able to learn as effectively or as quickly as before. High demanding activities like testing can significantly increase symptoms (e.g., headache, fatique, fogqiness, dizziness) which in turn can make testing more difficult.

Note Taking: Note taking may be difficult due to impaired multi-tasking abilities and increased symptoms.

Work Load Reduction: It takes a concussed student much longer to complete assignments due to increased memory problems and decreased speed of learning. Recovery can be delayed when a student pushes through's symptoms. Therefore, it is recommended that "thinking" or cognitive load be reduced, just as physical exertion is reduced. Examples of how to shorten work might be to reduce the length of essays, have the student do every other problem in a homework assignment, or highlight key concept areas for testing while eliminating testing on less important topics. Doing school work in 15 minute intervals, followed by a rest break, is often needed.

Breaks: Take breaks as needed to control symptom levels. For example, if the headache worsens during class, the student should put his or her head on the desk to rest. For worse symptoms, he/she may need to go to the nurse's office to rest prior to returning to class.

Extra Time: Students may experience severe symptoms some days or nights and not others. With increased symptoms, students are advised to rest, and therefore may need to turn assignments in late on occasion.

School Environment: The school setting has a variety of constant visual and audible stimulus. Loud and noisy classrooms, hallways, auditoriums and cafeterias can provoke symptoms in concussed students. Bright halogen lights, smart boards and projectors are visual stimulus that often exacerbates symptoms. Modifications of this stimulus may be needed during the student's school day. Allowing students to leave class five minutes early to avoid loud hallways or eat in a quiet place during lunch, allowing pre-printed notes or use of soundlasses are options.

Physical Exertion: At no point shall a student return to contact or collision activities while currently experiencing symptoms. Return to play protocols must be completed with a certified athletic trainer or other medical provider experienced with return to play protocols. Non-contact aerobic activities will be prescribed by the medical provider as tolerated.

Example of Symptom Score Checklist:

Ann & Robert H. Lurie Children's Hospital of Chicago Chicago, IL 60611 Head Injury Symptom Scale



Medical Record No.
Patient Name
Birthdate
Physician
Please align patient label to the right

Please rate your symptoms based on how much you have felt in the last 24 hours.

	Non	•		Mod	lerate		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
Drowsiness	0	1	2	3	4	5	6
Numbness or tingling	0	1	2	3	4	5	6
Dizziness	0	1	2	3	4	5	6
Balance problems	0	1	2	3	4	5	6
Sleeping more than usual	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
Feeling slowed down	0	1	2	3	4	5	6
Feeling as if "in a fog"	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
Trouble falling asleep	0	1	2	3	4	5	6
More emotional than usual	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
Fatigue	0	1	2	3	4	5	6
Sleeping less than usual	0	1	2	3	4	5	6
Visual problems	0	1	2	3	4	5	6

form Completed By:	Signature:
Parent/Guardian Signature:	Relationship to patient:
Date/Time:	Interpreter (as applicable):

Form #3041P, Revised 10/12, Approved HIM 12/04

Additional Resources:

Ann & Robert H. Lurie Children's Hospital of Chicago

Centers for Disease Control (CDC)

American Academy of Pediatrics (AAP)

www.luriechildrens.org/sports

www.cdc.gov/concussion

www.aap.org

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Nationwide Children's. A School Administrator's Guide to Academic Concussion Management. www.nationwidechildrens.org/academic-concussion-management

Nationwide Children's. An Educator's Guide to Concussion in the Classroom, 2nd Edition. www.nationwidechildrens.org/concussions-in-the-classroom

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FERPA www.ed.gov/policy/gen/guid/fpco/ferpa/index.html

www.connecticutconcussiontaskforce.org

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