

OHIO Return to Learn/ Concussion Team Model TRAINING



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Introduction



Many students who have sustained concussions return to school requiring academic and environmental adjustments while the brain heals.

School personnel are often not trained on the effects of concussions or ways to help these students transition back into learning.

The Plan



Implement *Return to Learn* strategies and a *Concussion Team Model* for Ohio schools to improve concussion recognition and response

Objectives of the Training



TO PROVIDE...



Part 1

Information on how concussions can affect students' learning, health, and social-emotional functioning

Part 2

A suggested concussion team model that involves a designated leader, as well as collaboration among the family, medical personnel, and school team

Part 3

Strategies for “return to learn,” including tools for assessment, symptom-based adjustments to the learning environment, and progress-monitoring

PART I: Concussion Effects



CONCUSSION=MTBI

MILD TRAUMATIC BRAIN INJURY

A concussion is caused by a direct blow or jolt to the head, face, or neck, or a blow to the body that causes the head and brain to shift rapidly back and forth.



it results in a short-term
impairment of neurological
function and a constellation
of symptoms.



Concussion Facts

Accurate prevalence estimates are difficult because many **do not seek medical attention**

Concussions are not visible on standard CT scans or MRIs

Nearly 33% of concussions in athletes still go unreported

(Meehan, Mannix, O'Brien, & Collins, 2013)

Concussions are not only experienced by athletes. Youth **ages 5-18** are at **increased risk** of experiencing a TBI and prolonged recovery

(Gilchrist, Thomas, Xu, McGuire, & Corondo)

Neurometabolic Changes

When one sustains a concussion, neurochemical changes take place in the brain

Potassium flows out of the brain cells

Calcium flows into the brain cells

This results in inefficiency of brain cells to properly deliver much-needed nutrients (especially **glucose**) to the brain.

These molecular changes hinder a person's ability to engage in many physical or mental activities.

Effects of a Concussion: Signs

- Appears dazed or stunned
- Is confused about events
- Answers questions slowly
- Repeats questions
- Can't recall events prior to and/or after the hit, bump, or fall
- May or may not lose consciousness (briefly)
- Shows behavior or personality changes
- Forgets class schedule or assignments



Danger Signs

The student
should be seen
in an
emergency
department
right away
if s/he has:

- > One pupil larger than the other
- > Drowsiness and cannot be awakened
- > A headache that gets rapidly worse
- > Weakness, numbness, or decreased coordination
- > Repeated vomiting or nausea
- > Slurred speech
- > Convulsions or seizures
- > Difficulty recognizing people or places
- > Increasing confusion, restlessness, or agitation
- > Unusual behavior
- > Loss of consciousness (even briefly)

Effects of a Concussion: Symptoms

Cognitive (thinking)

- Feeling slowed down
- Difficulty concentrating
- Difficulty remembering new information

Physical

- Headache
- Fuzzy or blurry vision
- Nausea or vomiting (early on)
- Sensitivity to noise or light
- Balance problems
- Feeling tired/having no energy

Emotional/Mood

- Irritability
- Sadness
- More emotional
- Nervousness or anxiety

Sleep

- Sleeping more than usual
- Sleeping less than usual
- Trouble falling asleep

Effects of a Concussion

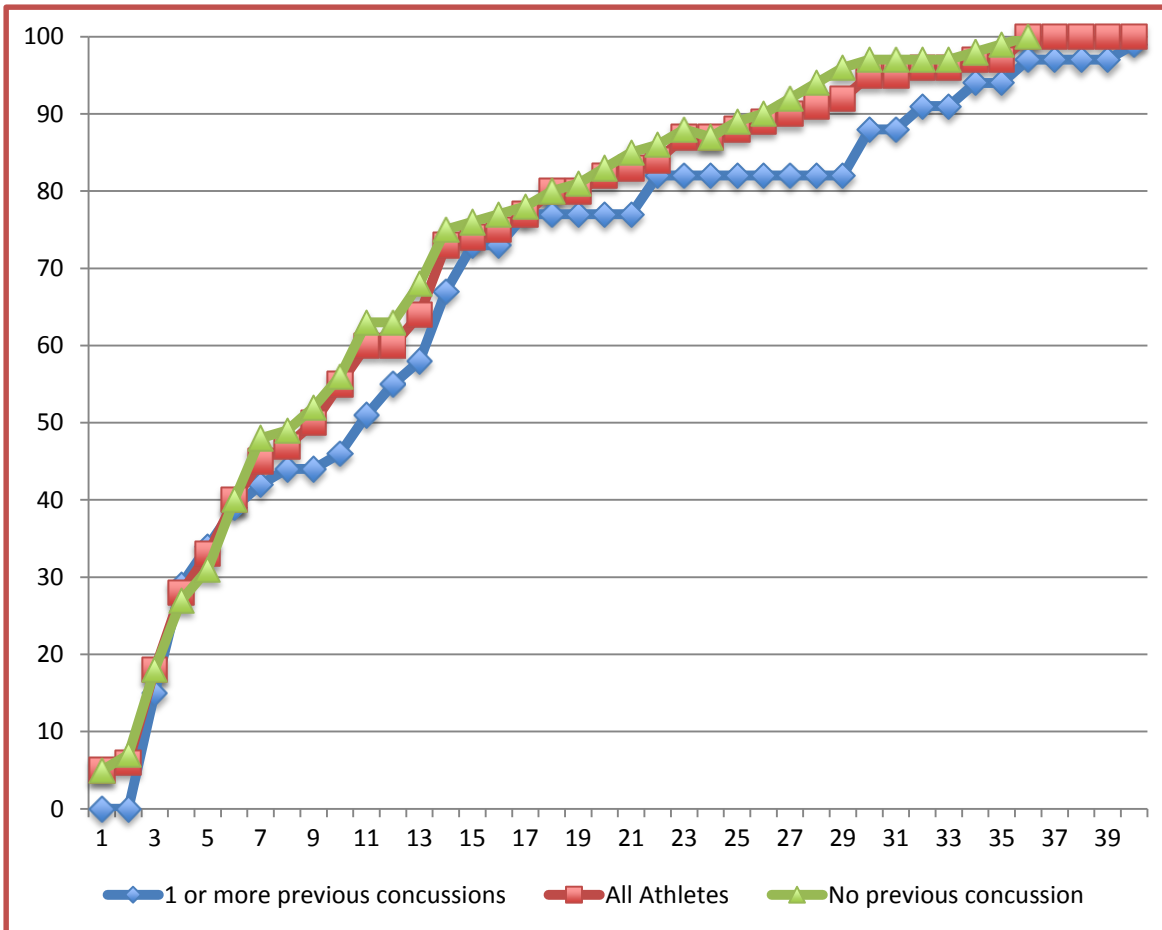


Symptoms flare when the brain is asked to do more than it can tolerate (trying to “tough it out” can make symptoms worse)

“Treatment” is physical and cognitive rest

More on how to achieve this after we discuss how to structure your School-Based Concussion Management Team...

Recovery from Concussion: How Long Does it Take?



Most recover in 3-4 weeks

Student should receive adjustments until symptoms have resolved

There is a need for balance between the need for physical and cognitive rest and keeping up with schoolwork

Risk Factors for Prolonged Recovery

Constellations of **symptoms** and **recovery** speeds are **unique**.

Some factors affecting recovery include:

History of
migraines/headaches

Psychiatric history

Anxiety, depression, sleep disorders,
other psychological disorders..

Developmental history

Learning disabilities, ADHD, developmental disorders...

Concussion history

Once a student sustains a concussion, s/he may be at 3-6x higher risk for sustaining another concussion, sometimes with less force and often with more difficult recovery

(Guskiewicz, Weaver, Padua, & Garrett, 2000)

Return to Activity Plan

Because every concussion and every student is different, symptom clusters and recovery rates will vary.

Return to Learn



Return to Play

Students receiving academic adjustments do so because symptoms are present. Students who are symptomatic should not be resuming physical activity

PART 2:

Concussion Team Model



School-based Concussion Team

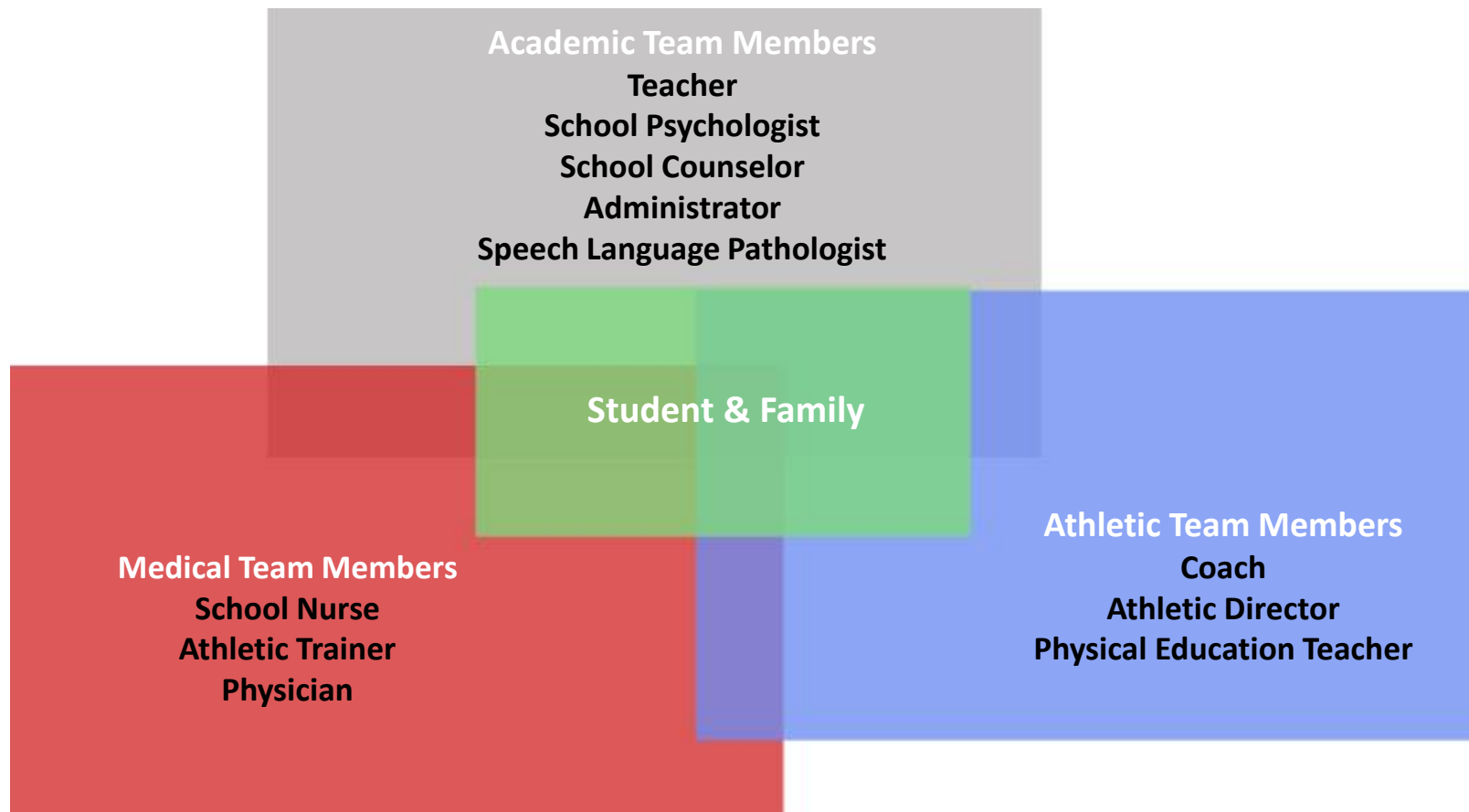
A **concussion team** ensures every student who sustains a concussion is monitored for return to activity



When a health issue affects a student's learning, school teams must **communicate** effectively with one another, with medical personnel, and with the family.

Listen, validate parents' feelings, avoid defensiveness, **recognize** fear and frustration, focus on solutions, **work together** toward common goals

School-based Concussion Team



Adapted from Nationwide Children's Hospital. *A School Administrator's Guide to Academic Concussion Management*. Retrieved August 25, 2015

Roles and Responsibilities: Family

TEAM MEMBER

Student



RESPONSIBILITIES

To clearly and honestly communicate their symptoms, academic difficulties and feelings

To carry out any assigned duties by other team members to the best of their ability

Parent/
Guardian



To submit all physician notes and instructions to the school in a timely manner

To help the student maintain compliance with any medical and/or academic recommendations given to promote recovery

Roles and Responsibilities: Academic Team Members

TEAM MEMBER

RESPONSIBILITIES

Teacher



To help the student get the best education possible given the circumstances and to follow recommended academic adjustments



School Counselor



To help create (as needed) and disseminate academic adjustments to the student's teachers

School Psychologist



To be the consultant for prolonged or complicated cases where long-term adjustments or more extensive assessment and educational plans may be necessary



Administrator



To direct and oversee the concussion team plan and trouble shoot problems

To help create a change in the culture of the school regarding the implementation of programs and policies

Roles and Responsibilities: Medical Team Members

TEAM MEMBER

RESPONSIBILITIES

Athletic Trainer
(also athletic team member)



To evaluate possible injuries and make referrals for student-athletes



To monitor symptoms and help coordinate and supervise a student-athlete's safe return to play

To communicate with the school about the student's progress

Physician



To evaluate, diagnose and manage the student's injury, and to direct medical and academic recommendations



School Nurse



To monitor in-school symptoms and health status changes



To help determine if it is appropriate for the student to be in school or if the student needs any health-related adjustments

Roles and Responsibilities: Athletic Team Members

TEAM MEMBER

RESPONSIBILITIES

Athletic Director



To oversee the athletic department's concussion team plan, including but not limited to: equipment management, policies, coach/athlete/parent education, etc.

Coach/Physical
Education Director



To recognize concussion symptoms and remove a potentially injured player from practice or competition

To receive communication from health care providers, parent/guardian and school about readiness to return to play

To communicate with the school about the student's progress

Concussion Team Leader

The concussion team leader (CTL) is the “central communicator” for all team members

Depending on roles and responsibilities, it might be the school psychologist, school counselor, school nurse, administrator, or someone else.

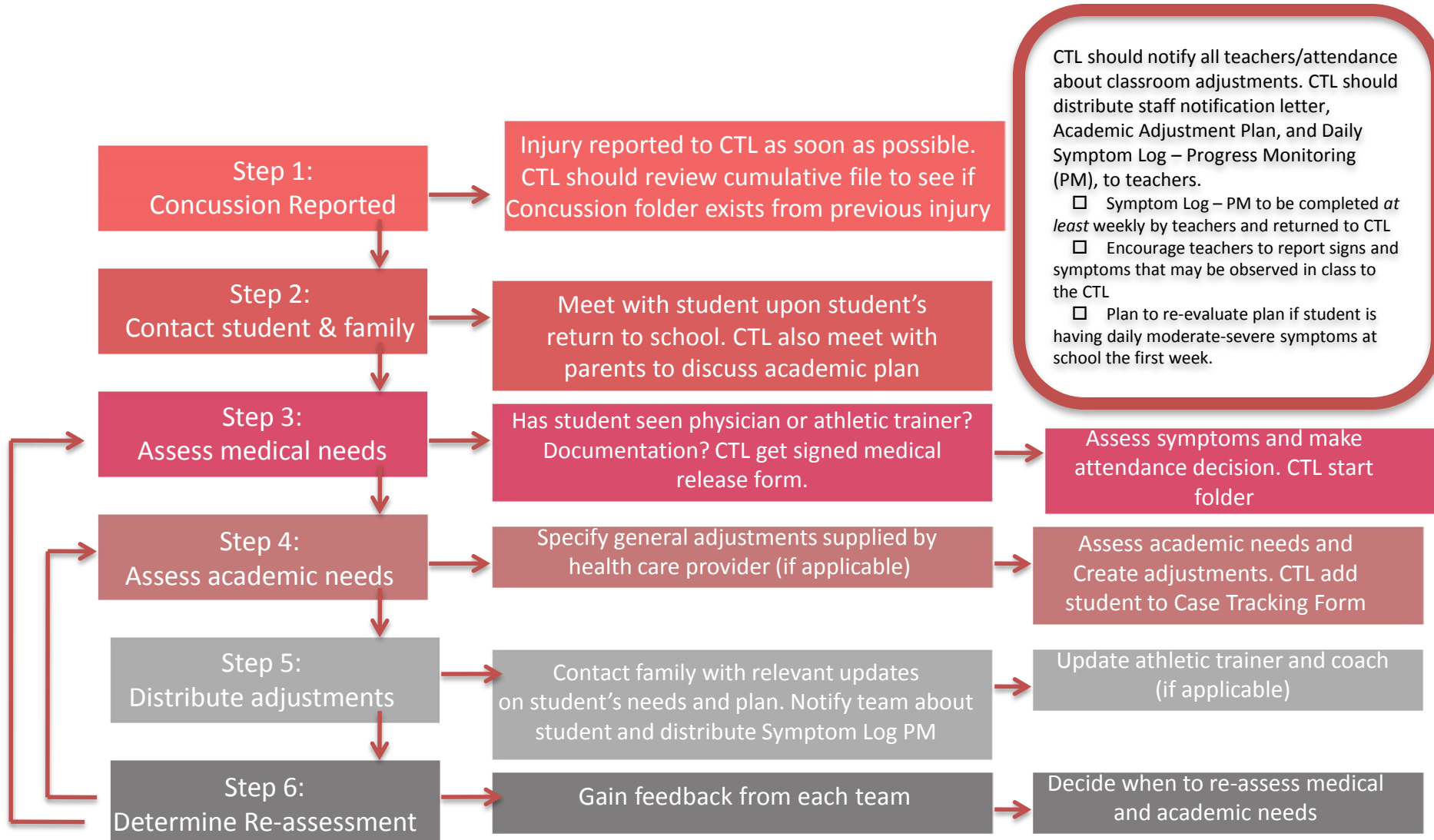
Oversees the return-to-learn process

Get Release of Medical Information (ROI) signed for two-way communication between the school and healthcare provider

Must be organized, a good communicator, willing to learn, and in the school building most days

Suggestion: same person as the 504 or IAT coordinator

Concussion Team Process



Concussion Team Process

STEP 1: Concussion is reported to CTL as soon as possible.

- At the beginning of school year, CTL should be identified to teachers, coaches, parents and administrators so the responsible adults know who to report injuries to.
- Anyone in the school community who suspects a concussion should contact the CTL right away so the student can be referred for proper evaluation.
- CTL should review cumulative student file to see if concussion file exists from previous injury

STEP 2: Contact student and family and meet with the student upon return to school.

- CTL explains his/her role & provides contact information
- CTL explains the steps in the management process
- CTL explains the responsibilities of the student & family
 - Honest communication
 - Follow recommendations
 - Forward physician notes & other relevant documentation
- Explaining responsibilities helps to ensure good communication with, and compliance from, the student and family

STEP 3: Assess medical needs

- The CTL or another designated concussion team member will determine if the student has been evaluated by an athletic trainer or physician, and if the student has documentation from the provider concerning school/activity restrictions and adjustments.
- If no recommendations are available, the CTL or team member should assess symptoms to determine if the student will benefit from being in school or if attendance is likely to be counterproductive.

See Symptom Log

- i. If symptoms are significant or severe, the student may need to be sent home.
 - ii. If symptoms are manageable and not becoming significantly worse by attending school, the student may continue to step 4.
- Document as required. CTL get signed Medical Release form from Parent/Guardian for communication between school and physician, if needed. CTL start folder for student.

STEP 4: Assess academic needs

- If there are academic recommendations from the health care provider, the CTL or designated team member should specify those general recommendations.
- If no recommendations are available, the CTL or designated team member should assess the student's academic needs.

See form titled **Academic Adjustments: Concussion**

- Document as required. CTL add student to Case Tracking Form.

**STEP 5: Distribute adjustments to teachers in writing.
Contact family (and if applicable, coach and athletic
trainer) with relevant academic/medical updates and plan,
as needed. Document as required.**

- Notify team about student and distribute Symptom Log – Progress Monitoring.

STEP 6: Identify appropriate timeframe for re-assessment of needs, and using feedback from teams, re-start process at step 3 or 4.

Re-assess medical and/or academic needs when...

- New physician documentation arrives dictating a new course of action
- Symptoms have changed (and therefore the prior assessment needs to be altered)
- Symptoms have resolved and are no longer a barrier to school participation or attendance
- Teachers or parents identify problems in current plan that are not being adequately addressed
- Once the re-assessment is complete, document as required, and return to step 5 (notify relevant parties of any changes to the plan), then continue to step 6 (identify appropriate timeframe for re-assessment).

A Note on Student Privacy

Information on a student's health is protected by HIPAA

(hhs.gov/ocr/privacy/hipaa/understanding/index.html)

Information on a student's school records is protected by

FERPA (www2.ed.gov/policy/gen/guid/fpco/ferpa/index.html)

Remind staff members to only discuss **what is necessary** to manage the situation and that they understand how to **appropriately communicate** what is involved in this plan in a way that maintains student privacy

Gaining support from the school community

Keep it simple, introducing the key concepts first and gaining support from responsive faculty members.

Create opportunities for meaningful discussion

Promote feedback. How can the initiative be improved?

Provide training and ongoing professional development in a way that is easily accessible.

Be patient: Systems change takes time.

PART 3:

Return to School



Return to School Progression

Initially, it is important to rest the brain & get good sleep

Limit physical, emotional, or cognitive activities to a level that is tolerable and does not exacerbate or cause re-emergence of symptoms

Exertion (and rest) falls along a continuum

No activity/full rest

Full activity/no rest



Cognitive Rest

If student stays home, s/he must avoid extensive computer/tablet use, texting, video games, television, music, loud music, and music via headphones

These activities make the brain work harder to process information and can exacerbate symptoms, thereby slowing recovery

Physical Rest

No participation in any physical activity until cleared by a physician, including physical education and sport activities

Physical activity after a concussion often magnifies already existing symptoms and puts the child at risk for a second, potentially more serious, concussion.



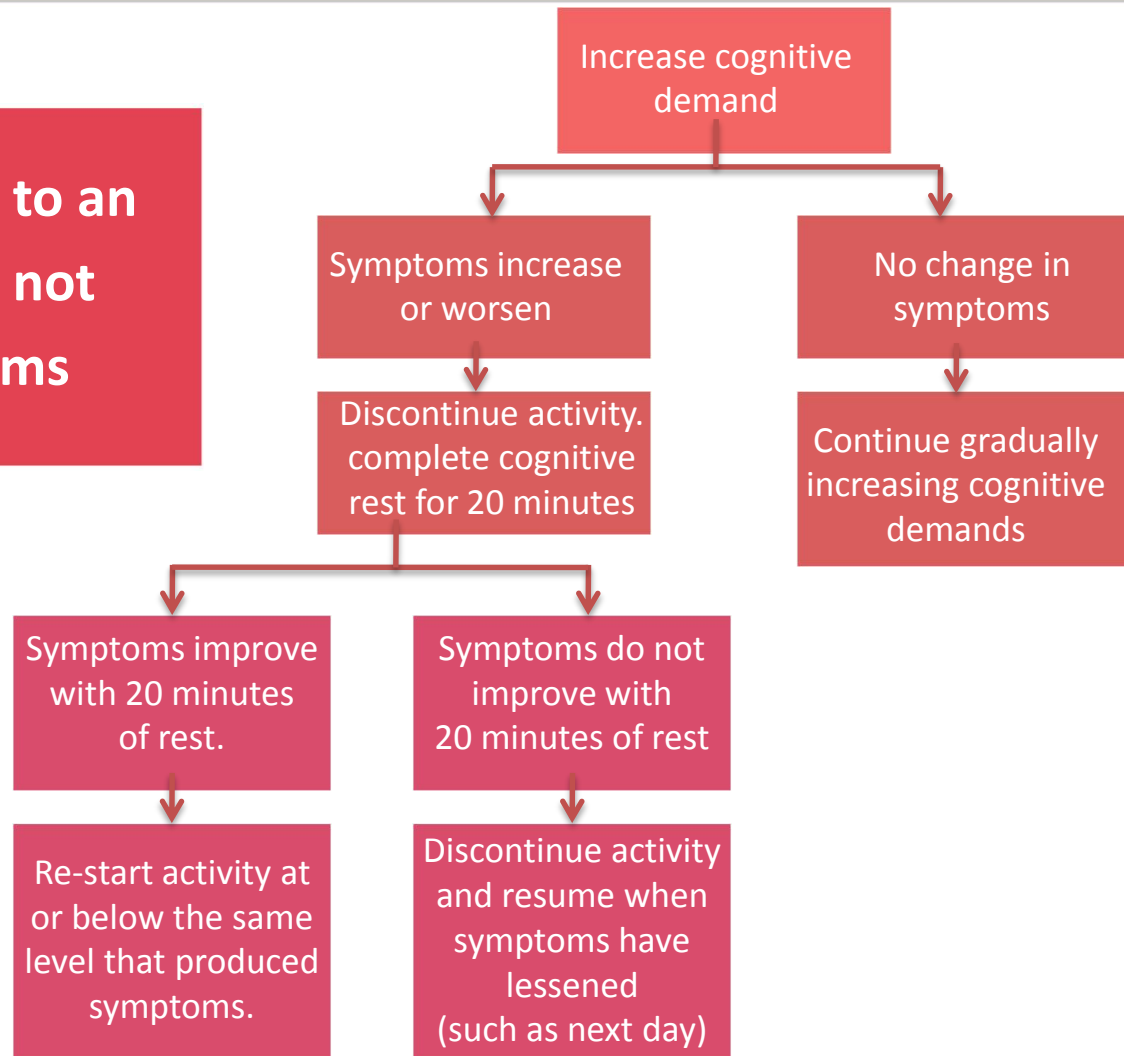
Return to Academics Progression

(SEE HANDOUT FOR DESCRIPTIONS)

Steps	Progression
1	No School—Cognitive and Physical Rest Family should receive guidance from health care professional regarding student's readiness to return to school (based on number, type, and severity of symptoms)
2	Partial Day Attendance with Adjustments Maximum accommodations Shortened day/schedule; breaks
3	School—Full day with adjustments
4	School—Full day without adjustments No physical activity until released by a healthcare professional
5	School—Full day with extracurricular involvement

Decision-Making Chart

Allow participation to an extent that does not worsen symptoms



Academic Adjustments Following Concussion

Front-load academic adjustments

Note: Students may be reluctant to accept adjustments and instead push through symptoms to complete work because of the anxiety associated with work piling up (Halstead et al., 2013; Sady, Vaughan, & Gioia, 2011)



Map adjustments onto symptoms

see following slides for details...

General

Cognitive/Thinking

Fatigue/Physical

Emotional

Determine how to modify work load

(Heintz, 2012)

Excused assignments

-not to be made up-

Accountable assignments

-responsible for content, not process-

Responsible assignments

-must be completed by student and will be graded-

Academic Adjustments: General

Adjust class schedule (alternate days, shortened day, abbreviated class, late start day).

Avoid noisy and over-stimulating environments (i.e., band) if symptoms increase.

No PE classes until cleared by a healthcare professional. No physical play at recess.

Allow students to drop high level or elective classes without penalty if adjustments go on for a long period of time.

Remove or limit testing and/or high-stakes projects.

Allow students to audit class (i.e., participate without producing or grades).

Alternate periods of mental exertion with periods of mental rest.

Academic Adjustments: Cognitive/Thinking

Reduce class assignments and homework to critical tasks only. Exempt non-essential written class work or homework. Base grades on adjusted homework.

Provide extended time to complete assignments/tests. Adjust due dates.

Once key learning objective has been presented, reduce repetition to maximize cognitive stamina (e.g., assign 5 of 30 math problems).

Allow student to demonstrate understanding orally instead of writing.

Provide written instructions for work that is deemed essential.

Provide class notes by teacher or peer. Allow use of computer, smart phone, tape recorder.

Allow use of notes for test taking..

Academic Adjustments: Fatigue/Physical

Allow time to visit school nurse/counselor for headaches and other symptoms

Allow student to wear sunglasses indoors. Control for light sensitivity (e.g., draw blinds, sit away from window, hat with brim).

Allow strategic rest breaks (e.g., 5-10 minutes every 30-45 minutes) during the day.

Allow student to study or work in a quiet space away from visual and noise stimulation.

Allow student to spend lunch/recess in a quiet space for rest and control for noise sensitivity.

Allow hall passing time before or after crowds have cleared.

Provide a quiet environment to take tests.

Academic Adjustments: Emotional

Develop a plan so student can discreetly leave class as needed for rest.

Keep student engaged in extra-curricular activities. Allow student to attend but not fully participate in sports practice.

Provide quiet place to allow for de-stimulation.

Encourage student to explore alternative activities of non-physical nature.

Develop an emotional support plan for the student (e.g., identify adult to talk with if feeling overwhelmed).

Tools for the Team

(see handouts or links)

A flexible set of materials is available from the Heads Up to Schools: Know Your Concussion ABCs

<http://www.cdc.gov/headsup/index.html>

Assessment of concussion

Concussion Signs and Symptoms Checklist

http://www.cdc.gov/headsup/pdfs/schools/tbi_schools_checklist_508-a.pdf

Return to Academics Progression

Progress Monitoring

Concussion symptom log

Monitoring of academic adjustments

Symptom-Specific Adjustments

Academic Adjustments Following Concussion



When Symptoms Do Not Resolve

If managed appropriately, symptoms should resolve in a few weeks.

If problems persist, academic accommodations and student support may be provided through a health plan, a 504 plan, or –in very rare cases– an IEP.

A student may exaggerate or feign symptoms in order to escape work, continue receiving academic adjustments, or avoid resuming sports. In such cases, the concussion team should meet to collaboratively determine next steps.

Progress Monitoring

Concussion Symptom Log

Daily or weekly tracking on 0-6 scale.

Classroom Concussion Assessment Form

The CTL might also ask open-ended questions (e.g., “How is Spanish class?”) to clarify specific courses or tasks that present difficulty.

As symptoms improve, gradually increase *either* the:

Amount of work

Length of time spent on work

Type or difficulty of work

After Return to School, Follow Return to Play Guidelines

Obtain a health care professional's clearance for a student to return to play after sustaining a concussion.

- Professional with expertise in concussion evaluation and care
- Failure to do so can increase the risk of subtle neuroinflammation, which may become chronic

Return to play when the student is:

- Symptom-free both at rest and with exertion
 - Symptom-free with no medication
- Back to baseline on academics (and neurocognitive tests, such as ImPACT, if available) <https://www.impacttest.com/>

Ohio's Return-to-Play/ Concussion Law

**Went into effect April 2013
Contains three tenets of model legislation**

Education: Coaches,
officials, parents,
student athletes

Removal from play if a
concussion is
reasonably suspected

Clearance by a licensed
health care professional
for return to play

More information available at: <http://www.healthy.ohio.gov/vipp/concussion>

Return to Play (Cont.)

The Third International Conference on Concussion in Sport, held in Zurich in 2008, resulted in a Consensus Statement on Concussion in Sport (McCrory et al., 2008).

Recommended that a student athlete proceed through six steps to return to play (*the athlete proceeds to the next level if asymptomatic at the current level for at least 24 hours*):

1. No activity, complete physical and cognitive rest
2. Light aerobic activity
3. Sport-specific activities and training
4. Noncontact drills
5. Full-contact practice training after medical clearance
6. Game Play

What Do I Do Now?

Designate a concussion team leader (CTL)

Create a culture that encourages reporting of known and suspected concussions

Provide information to all students, parents, and school staff about:

- how concussions can affect learning
- how effective concussion management can decrease likelihood of student experiencing health or academic problems as a result of the concussion
- <http://brain101.orcasinc.com/5000/>

Ensure school procedures are aligned with concussion plan management

Ensure that all team members have a written guide of responsibilities and expectations

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