Department of Health

# Ohio Return to Learn and Concussion Team Model

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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 to school.

**This manual is intended to provide Ohio school districts with guidance in implementing a Concussion Team Model and "Return to Learn" strategies to improve concussion recognition and response. It is a print copy of information that was provided in the webinar training. It is recommended that these resources be shared annually at a staff in-service day. The manual provides:**

- Information on how concussions can affect students' learning, health, and social-emotional functioning.
- A suggested concussion team model that involves a designated leader and collaboration among the family, medical personnel, and school team.
- Strategies for return to learn, including tools for assessment, symptom-based adjustments to the learning environment, and progress monitoring.

# Part 1: Concussion Effects

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 = MTBI**
Mild Traumatic Brain Injury

- 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).

## Neurometabolic Changes

- When one sustains a concussion, neurochemical changes take place in the brain.
- Potassium flows out of the brain cells and Calcium flows into the brain cells.
- This leads to an inability to properly deliver much-needed nutrients (especially glucose) to the brain.
- These changes hinder one's ability to engage in many physical and mental activities *(Giza & Hovda, 2001).*

## Concussion Signs (observed by others)

- Appears dazed or confused.
- 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 he or she 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).

*Centers for Disease Control and Prevention. Heads Up to Schools: Know Your Concussion ABCs. Retrieved from http://www.cdc.gov/headsup/schools/index.html.*

# Concussion Symptoms (Reported by the Students)

**After a student has sustained a concussion, he or she may experience one or more of these symptoms from one or more categories:**

## 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.

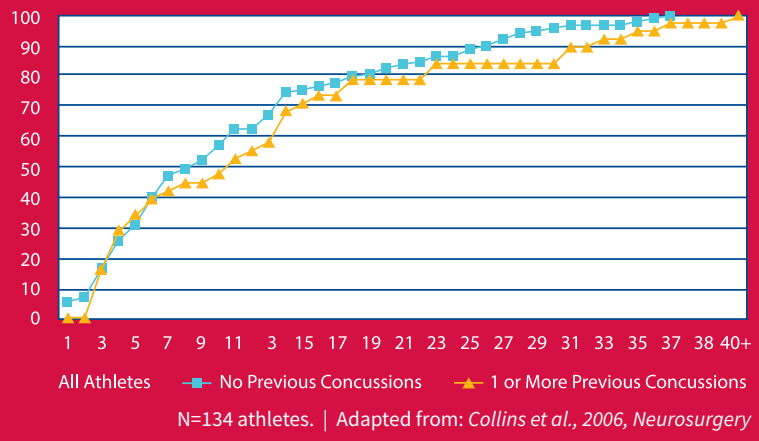
*Centers for Disease Control and Prevention. "Concussion". https://www.cdc.gov/heads-up/signs-symptoms/index.html*

## Symptoms During Recovery

- Symptoms may 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.
  - However, prolonged full cognitive rest may slow recovery; balance is needed.

### Recovery from a Concussion: How Long Does it Take?

- Most recover within 3-4 weeks
  - The graph on the right shows the percentage of students recovering across a given number of days.
- Students should receive adjustments (see Appendix E) until symptoms have resolved.
- There is a need for balance between ***physical and cognitive rest*** and ***keeping up with schoolwork.***




N=134 athletes. | Adapted from: *Collins et al., 2006, Neurosurgery*

## Risk Factors for a Prolonged Recovery Include

**Developmental history:** Learning disabilities, ADHD, developmental disorders

**Medical history:** History of migraines/headaches

**Psychiatric history:** Anxiety, depression, sleep disorders, other psychological disorders

**Concussion history:** Once a student sustains a concussion, he or she may be at 3-6x higher risk for sustaining another concussion, sometimes with less force and often with a more difficult recovery *(Guskiewicz, Weaver, Padua, & Garrett, 2000).*

## Return to Activity Plan

Because every concussion and every student is different, it is important to consider that **symptom clusters** and **recovery rates** will vary. Students receiving academic adjustments do so because symptoms are present. Students who are symptomatic should not engage in physical activity such as sports practice or PE class; however, they can return to school in a modified learning environment. A concussion team can facilitate this process.

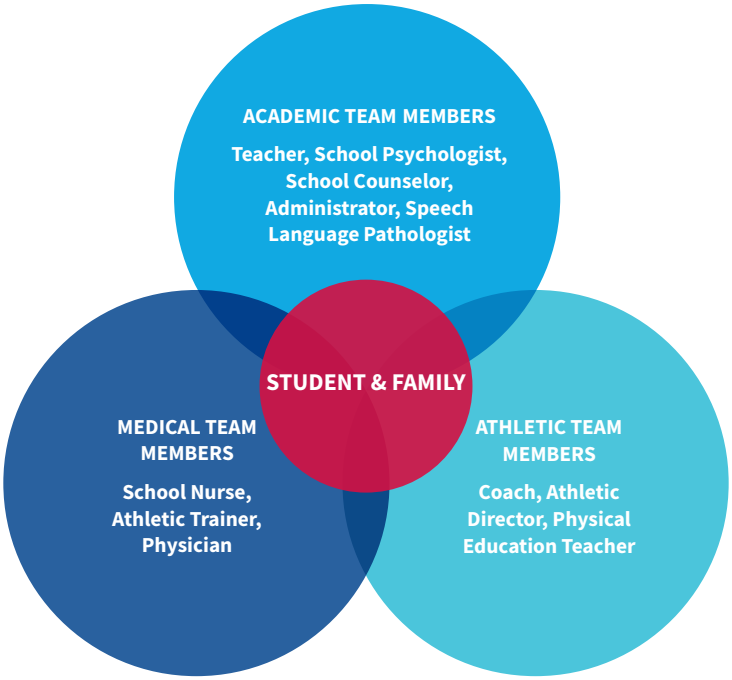
**Return to Learn** **Return to Play**

# Part 2: The Concussion Team Model

## School-Based Concussion Team Members

**The school-based concussion team includes the student and his/her parents, as well as academic, medical, and athletic personnel.**

- This team ensures that 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.
- Team members can listen, recognize fear and frustration, focus on solutions, and work together toward common goals.




## Concussion Team Leader

- The concussion team leader (CTL) is the "central communicator" for all team members.
- Depending on roles and responsibilities, this might be the school nurse, school psychologist, school counselor, administrator, or someone else.
  - Receives injury reports; oversees the return-to-learn process and documentation.
  - Obtains Release of Medical Information (ROI) signed for two-way communication between school and healthcare provider.
  - Must be organized, a good communicator, willing to learn, and in the school building most days.

# Team Member Roles and Responsibilities

## Student / Family

- **Student**
  - Clearly and honestly communicate symptoms, academic difficulties, and feelings.
  - Carry out assigned duties, such as symptom ratings and modified assignments, to the best of their ability.
- **Parent / Guardian**
  - Submit all physician notes and instructions to the school in a timely manner.
  - Help the student maintain compliance with any medical and/or academic recommendations given to promote recovery.

## Academic Team Members

- **Teacher**
  - Help the student get the best education possible given the circumstances and to follow recommended academic adjustments.
- **School Psychologist, School Counselor, and/or Speech Language Pathologist**
  - Help create, disseminate, and explain academic adjustments to the student's teachers.
  - Consult on prolonged or complicated cases where long-term adjustments or more extensive assessment and educational plans may be necessary.
- **Administrator**
  - Direct and oversee the concussion team plan and trouble shoot problems.
  - Help create a change in the culture of the school regarding the implementation of programs and policies.

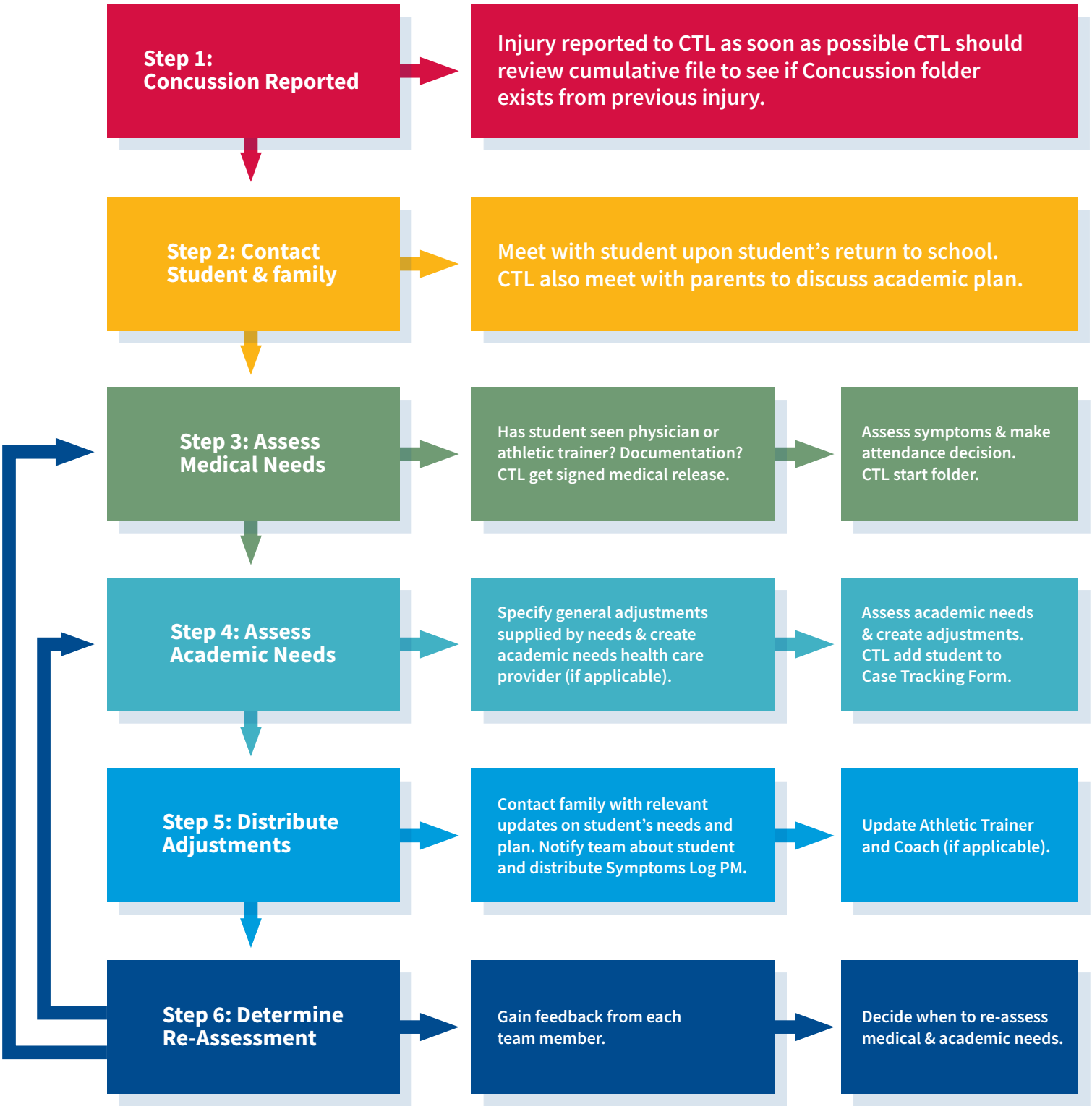
## Medical Team Members

- **Athletic Trainer (Is Also Athletic Team Member)**
  - Evaluate possible injuries and make referrals for student-athletes.
  - Monitor symptoms and help coordinate and supervise a student-athlete's safe return to play.
  - Communicate with the school about the student's progress.
- **Physician**
  - Evaluate, diagnose and manage the student's injury.
  - Direct medical and academic recommendations.
- **School Nurse**
  - Monitor in-school symptoms and health status changes.
  - o Help determine if it is appropriate for the student to be in school or if the student needs any health-related adjustments.

## Athletic Team Members

- **Athletic Director**
  - Oversee the athletic department's concussion team plan, including but not limited to: equipment management, policies, and coach/athlete/parent education.
- **Coach / Physical Education Director**
  - Recognize concussion symptoms and remove a potentially injured player from practice or competition.
  - Receive communication from health care providers, parent/guardian and school about readiness to return to play.
  - Communicate with the school about the student's progress.

# Concussion Team Process




Adapted from: Nationwide Children's Hospital. *A School Administrator's Guide to Academic Concussion Management.*

## STEP 1: Concussion Is Reported to CTL as Soon as Possible.

- At the beginning of school year, the CTL should be identified to teachers, coaches, parents and administrators so the responsible adults know to whom they should report injuries.
- Anyone in the school community who suspects a concussion should contact the CTL immediately so the student can be referred for proper evaluation.
- Suspected concussions sustained at school can be evaluated with the Concussion Signs and Symptoms Checklist (Appendix B), which is designed to be shared with parents and medical providers.
- The CTL documents confirmed concussions using the Case Tracking Form (Appendix C).

## STEP 2: Contact Student and Family and Meet With the Student Upon Return to School.

- The CTL explains his/her role, provides contact information, and describes the steps in the concussion management process.
- The CTL explains the responsibilities of the student and family (e.g.,) honest communication, follow recommendations and requests that they forward physician notes and other relevant documentation.
- This helps ensure good communication with, and compliance from, the student and family.

## STEP 3: Assess Medical Needs.

- Determine if the student has been evaluated by an athletic trainer or physician. Get any documentation from them concerning school/activity restrictions and adjustments.
- If no recommendations are available, the CTL or designee (e.g., school nurse) should assess symptoms to determine if the student will benefit from being in school or if attendance is likely to be counterproductive.
- If symptoms are significant or severe, the student may need to be sent home.
- If symptoms are manageable and not becoming significantly worse by attending school, continue to step 4.

## STEP 4: Assess Academic Needs.

- If there are academic recommendations from the health care provider, the CTL should specify those general recommendations.
- If no recommendations are available, the CTL or designee (e.g., school psychologist or school counselor) should assess the student's academic needs and document as required.

## STEP 5: Distribute Adjustments.

- Give Staff Notification Letter (Appendix A), Symptom Log for progress monitoring (Appendix D) and recommended Academic Adjustments (Appendix E) to teachers in writing, with instructions on how and when to provide data to CTL.
- Contact family (and, if applicable, coach and athletic trainer) with academic/medical updates and plan.

## STEP 6: Identify Appropriate Timeframe for Re-Assessment of Needs.

Re-assess medical and/or academic needs at step 3 or 4 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

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

- Information on a student's health is protected by HIPAA.
  - **http://hhs.gov/ocr/privacy/hipaa/understanding/index.html**
- Information on a student's school records is protected by FERPA.
  - **https://studentprivacy.ed.gov/ferpa**

# Gaining Support from the School Community

- Keep it simple, introducing key concepts first and gaining support from responsive members of the school community.
- Create opportunities for meaningful discussion.
  - Each school district is different; therefore, this model is designed to be flexible. Your district can alter aspects of this plan based on your needs, resources, and experiences.
  - Promote feedback. Discuss how the initiative be improved within your district.
  - Involve all stakeholders in the process, including students, families, staff, and community members.
- Provide training and ongoing professional development in a way that is easily accessible.
- Be patient. A systems change initiative, such as adoption of this model, takes time.

# Part 3: Return to School

## Limitations Following Concussion

**Initially, it is important to rest the brain and 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. Activity can gradually be increased as long as it does not cause symptoms to flare.

## Exertion and Rest Fall Along a Continuum

**No Activity / Full Rest** ⟷ **Full Activity / No Rest**

## Cognitive Rest

- If student stays home, he or she 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

## Phase 1: No School.

- **Symptom Severity:** In this phase, the student may have a high level of symptoms that prevent him or her from benefiting from being in school. Physical symptoms (e.g., headache, fatigue) tend to be the most prominent and interfere with even basic tasks.
- **Treatment:** The student should rest the brain and body as much as possible.
- **Interventions:**
  - No school.
  - No activities that exacerbate symptoms, such as television, video games, computer use, texting or loud music.
  - Note and avoid other "triggers" that worsen symptoms.
  - No physical activity, which includes anything that increases the heart rate, such as (but not limited to) weightlifting, sport practices and games, gym class, running, stationary biking, push-ups, sit-ups, and so forth.

## Phase 2: Half-day Attendance with Adjustments.

- **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 and/or have a long duration.
- **Treatment:** Balance rest with gradual re-introduction to school. Avoid tasks that produce, worsen or increase symptoms. Avoid symptom triggers.
- **Interventions:**
  - Part-day school attendance, with focus on the core subjects; prioritize what classes should be attended and how often.
  - Symptoms reported by student addressed with specific academic adjustments.
  - Eliminate busy work or items not essential to learning priority material.
  - Emphasis on in-school learning; rest is necessary once out of school; homework reduced or eliminated.
  - No physical activity.

## Phase 3: Full-day Attendance with Adjustments.

- **Symptom Severity:** In this phase, the student's symptoms have decreased in both number and severity. Symptoms may still be exacerbated by certain activities, but short time spans with known symptom triggers do not have drastic effects on symptom levels.
- **Treatment:** As the student improves, gradually increase demands on the brain by increasing the amount of work, length of time spent on the work, and the type or difficulty of work. Gradually re-introduce known symptom triggers for short time periods.
- **Interventions:**
  - Continue to prioritize assignments, tests and projects; limit student to one test per day.
  - Continue to prioritize in-class learning material; minimize workload and promote best effort on important tasks.
  - Gradually increase amount of homework.
  - Reported symptoms addressed by specific academic and environmental adjustments; adjustments reduced or eliminated as symptoms wane and resolve (continue to use the Symptom Log, Appendix D, to inform modification of the Academic Adjustments provided, Appendix E).
  - No physical activity

## Phase 4: Full-day Attendance without Adjustments.

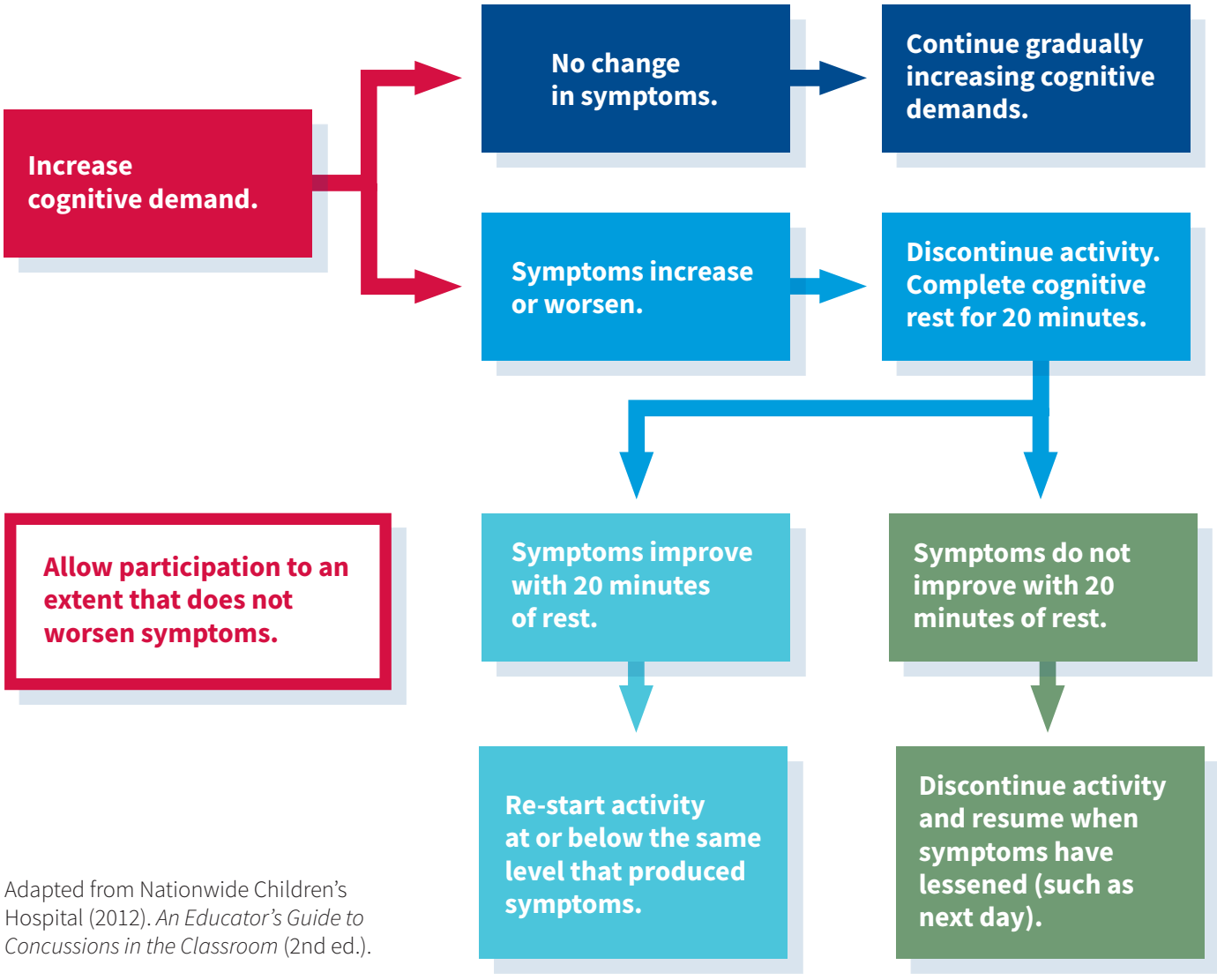
- **Symptom Severity:** In this phase, the student may not have any symptoms or may have mild symptoms that are often intermittent.
- **Treatment:** Adjustments are removed when student can function fully without them.
- **Interventions:**
  - Construct a plan to finish completing missed academic work and keep stress levels low.
  - No physical activity until released by a healthcare professional (such as physician or athletic trainer).

## Phase 5: Full School and Extracurricular Involvement.

- **Symptom Severity:** No symptoms are present.
- **Treatment:** No adjustments or accommodations are needed.
- **Interventions:** Before returning to gym class, weightlifting and/or sports, the student should complete the gradual return-to-play progression as indicated by the healthcare professional.

Adapted from: Nationwide Children's Hospital. *An Educator's Guide to Concussions in the Classroom.* Retrieved August 25, 2015

## Decision-Making Chart




Adapted from Nationwide Children's Hospital (2012). *An Educator's Guide to Concussions in the Classroom* (2nd ed.).

# Academic Adjustments Following Concussion

"Front-load" academic adjustments; they should be ample and generous upon return to school and gradually withdrawn as the student recovers. Some 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)*.

Consult with the student about his or her concussion, create appropriate adjustments that align with the student's symptoms, and create a plan for assignment completion. 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

Map adjustments onto symptoms: general, cognitive/thinking, fatigue, physical, and emotional. Use the form in Appendix E to document recommended strategies.

## General Academic Adjustments:

- Adjust class schedule (alternate days, shortened day, abbreviated class, late start day).
- No PE classes until cleared by a healthcare professional. No physical play at recess.
- Allow students to audit class (i.e., participate without producing or grades).
- Avoid noisy and over-stimulating environments (i.e., band) if symptoms increase.
- 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.
- Alternate periods of mental exertion with periods of mental rest.

## Cognitive/Thinking Academic Adjustments:

- 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.

## Fatigue/Physical Academic Adjustments:

- Allow time to visit school nurse/counselor for headaches and other symptoms.
- Allow strategic rest breaks (e.g., 5-10 minutes every 30-45 minutes) during the day.
- Allow hall passing time before or after crowds have cleared.
- Allow student to wear sunglasses indoors. Control for light sensitivity (e.g., draw blinds, sit away from window, hat with brim).
- 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.
- Provide a quiet environment to take tests.

## Emotional Academic Adjustments:

- 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

Following is information on tools and procedures that can support the concussion team's efforts at documenting concussion cases and monitoring progress:

## Heads Up to Schools: Know Your Concussion ABCs

- A flexible set of materials to further support the team is available from the CDC: Heads Up to Schools: Know Your Concussion ABCs, **http://www.cdc.gov/headsup/index.html**

## Sample Letters to Staff and Parents (Appendix A)

- Editable Microsoft Word versions of these letters are available on the ODH website.
- Sample letters include:
    - A memo of general information on the district's implementation of a return to learn/concussion team model. This notice can be modified and distributed in newsletters, social media pages, and other building-level communication.
    - A form to inform parents of a child's possible head injury sustained at school, which also provides general concussion information.
    - A form to allow the release of medical information to the school from the student's physician.
    - A staff notification letter for confirmed concussion cases.

## Concussion Signs and Symptoms Checklist (Appendix B)

- **https://www.cdc.gov/heads-up/media/pdfs/schools/TBI_schools_checklist_508-a.pdf**
- From the CDC – Used to monitor observed signs (physical, cognitive, emotional).
- Lists danger signs, which indicate the student should be seen in the ER right away.
- Check for signs or symptoms upon arrival, fifteen minutes later, at the end of 30 minutes, and before the student leaves. Send a copy with the parents to give to doctor.
- Useful if a child is injured at school or if they sustain a head injury outside of school (e.g., on a previous school day) and present with signs or symptoms at school.

## Concussion Team Leader's Case Tracking Form (Appendix C)

- An editable versions of this case tracking form is available on the ODH website.

## Concussion Symptom Log (Appendix D)

- Ongoing progress monitoring to help determine necessary adjustments.
- Daily or weekly tracking on 0-6 scale, should come from multiple sources.

## Academic Adjustments (Appendix E)

- Should be based on the type and intensity of symptoms reported on Symptom Log.
- May be class-specific. To clarify specific courses or tasks that present difficulty, the CTL may also periodically interview the student. Asking questions like “how is Spanish class?” can help determine if adjustments need to be used only in certain classes.
- As symptoms improve, gradually increase either the:
    - Amount of work.
    - Length of time spent on work.
    - Type or difficulty of work.

## Sample District Policy (Appendix F)

- It is recommended that school districts adopt a policy statement regarding student concussions. This sample can be modified to meet the needs of your district.

## Sample Concussion Response Protocol (Appendix G)

- Can be modified to meet different district needs and to reflect available personnel.

# If 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 formal health plan, a 504 Plan, or—in very rare cases—an IEP.

In rare situations, 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. It is important to consistently apply activity restrictions. For example, a student who is unable to complete a quiz should not be driving a car. One who cannot use a computer as part of a lesson should not be watching movies.

In prolonged concussion cases, teachers may question whether students have mastered course material sufficiently to pass a class. Assigning grades in such situations can be difficult. In such cases, teachers are advised to reduce or remove nonessential material, focus on essential material, and determine the best way to assess knowledge on essential material for course completion. This can be done in consultation with the concussion team. A good guideline is to consider how they might typically help a student get caught up after a prolonged illness like mononucleosis or a personal crisis, such as a death in the immediate family. In some cases, students may need to retake courses or do credit recovery during the summer.

# Return to Play

**After a student has returned to school fully, they will follow return-to-play guidelines. Following is a brief summary of what this entails. More information can be found at: https://odh.ohio.gov/know-our-programs/child-injury-Prevention/youthconcussions/youthconcussions.**

## Ohio's Return to Play Concussion law went into effect in April 2013. This law 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.

The health care professional should have expertise in concussion evaluation and care.

## Return to Play is typically recommended 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, performed.

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

It is recommended that a student athlete proceed through six steps to return to play. The athlete can proceed to the next level if he or she is asymptomatic at the current level for at least 24 hours:

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

# Next Steps

To begin implementing a return to learn/concussion team model in your school:

- Train core concussion team members using the online webinar for team members.
- Designate a concussion team leader (CTL).
- Train teachers using the online webinar designed for teachers.
- Create a culture within your district that encourages reporting of known and suspected concussions.
- Provide information to all students, parents, and school staff about how concussions can affect learning and effective concussion management.
    - This brief video is recommended: **https://www.orcasinc.com/products/brain-101/index.html.**
- Ensure that all concussion team members understand responsibilities and expectations and have written procedures that are aligned with concussion plan management.
- Encourage the formal adoption of district policy by your school board (see Appendix F for sample wording).
- Create a district-specific concussion response protocol (see Appendix G for sample).

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# Appendix A

## Sample Letters to Staff and Parents

**Provide general information to staff and parents. This notice can be modified and distributed in newsletters, social media pages, and other building-level communication.**

Dear **<<insert school name>>** staff and parents:

Our school is committed to the health and well-being of our student community. We are implementing a Return to Learn/Concussion Team Model to help students who have sustained concussions safely return to school. Team members include **<<insert concussion team members>>**.

If you learn of a student who has a concussion, please contact **<<insert concussion team leader's name>>** immediately. The team can then develop a plan of academic adjustments that can help the student when he or she returns to school.

Any questions about these procedures can be directed to **<<insert concussion team leader's name>>** at **<<insert contact information>>**. Thank you for your support of our students.

**This form informs parents of a possible head injury sustained at school, and provides general information to parents.**

Dear Parent/Guardian:

You are receiving this form because your student may have experienced a head injury at school today. Though most severe head injuries can be identified at the time of the injury, signs and symptoms of a more severe head injury, or concussion, may not develop until as long as 48 hours after the injury.

It is important that a student who has experienced a head injury, even a minor head injury, be observed closely.

If your child is confused, has unusual behavior or responsiveness, loss of consciousness, or if there is concern about serious neck and spine injury, they should be referred at once for emergency care.

Possible signs and symptoms of concussion to watch for over the next 48 hours include:

- Drowsiness and cannot be awakened
- Weakness, numbness, or decreased coordination
- Headache that gets rapidly worse
- Loss of consciousness
- Difficulty breathing
- Repeated nausea or vomiting
- Slurred speech
- Convulsions or seizures
- Difficulty recognizing people or places
- Increasing confusion, restlessness, or agitation
- Unusual behavior

You can check on your child during the night; however, it is not necessary to keep them awake.

If your child is complaining of mild pain (head ache, sore at place of injury) you may give them the recommended dosage of acetaminophen (Tylenol). It is recommended that you consult a health care provider first.

If your child requires medical care due to this injury, please provide the school with a health care providers note stating your child may return to school.

Name: _____ Title: _____ Date: _____

**This form allows the release of medical information to the school from the student's physician/doctor.**

### AUTHORIZATION FOR USE OR DISCLOSURE OF PROTECTED HEALTH INFORMATION

Your healthcare provider will require Parent/Guardian signature on this form to share Protected Medical Information with the school district in relation to the student. Please sign and give the form to your healthcare provider and/or to the school nurse.

Student: _____ DOB: _____ Student ID: _____

Grade:_____ School: _____ Medical Agency: _____

I, _____ (Parent/Guardian) authorize my child's health care provider(s) to release (name of child) _____'s medical records to the school, specifically, the following person, persons, or agencies (school district, school nurse, physical therapist):

_____ _____

_____ _____

_____ _____

The healthcare provider may disclose the following protected health information (check all that apply):

- Health Appraisals
- Immunizations
- Past/Current Medical Condition and Its Impact on Attendance, School Programming, and/or PT, OT, or ST needs
- Other _____

Please select one:

- This authorization is valid for the entire academic school year 20 - 20 .
- This authorization shall expire on _____/_____/_____ (MO/DD/YR)

I understand that I am not required to sign this authorization and can refuse to sign it.

I acknowledge that I have the right to revoke this authorization at any time by sending written notification to the Privacy Officer at my healthcare provider's office and to the District Administration Building.

I understand that my child's treatment is not dependent on my agreement to release or withhold information.

_____ _____ _____

Date Signature of Parent or Guardian, or of Patient (Over 18) Relationship to Patient

# Staff Notification Letter

**For Confirmed Concussion Cases (Send after parents have signed Release of Information):**

Dear **<< staff name or role>>**,

This memo is to notify you that **<<student name>>** sustained a concussion on **<<date>>**. We are requesting that you assist with this student's concussion management and recovery. Some students recovering from a concussion may need a few days of complete rest before returning to school.

Each concussion is unique and can cause different symptoms. Some may appear immediately; some may develop over days or weeks. Most students who have sustained concussions will be better within 3-4 weeks, but some can take months to recover. Managing symptoms appropriately can help to shorten the duration of recovery. Common signs and symptoms of concussion include:

## Signs (Observed by Others):

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

## Symptoms (Reported by the Student):

### 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.

### Cognitive(Thinking)

- Irritability.
- Sadness.
- More emotional.
- Nervousness or anxiety.

### Sleep

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

A student who has sustained a concussion needs to rest his or her brain following injury. This includes avoiding bright lights and loud noises. Students are usually advised to avoid dances, sporting events, TV, video games, and computer use. Cognitive activities such as reading and problem solving may need to be adjusted.

Attached is an **Academic Adjustment Plan** that indicates school-based adjustments selected by the concussion team for optimal healing. Please be flexible with this student and understand healing takes place at different rates. Please monitor this student and report any worsening of symptoms. Contact **<<name and contact info>>** if you have any questions.

Thank you.

**<<name and role>>**
Concussion Team Leader

*Adapted from ORCAS Brain101: The Concussion Playbook*

# Appendix B

## CONCUSSION SIGNS AND SYMPTOMS Checklist

CDC HEADS UP
SAFE BRAIN. STRONGER FUTURE.

Student's Name: _____ Student's Grade: _____ Date/Time of Injury: _____

Where and How Injury Occurred: *(Be sure to include cause and force of the hit or blow to the head.)* _____

_____

Description of Injury: *(Be sure to include information about any loss of consciousness and for how long, memory loss, or seizures following the injury, or previous concussions, if any. See the section on Danger Signs on the back of this form.)* _____

_____

_____

**DIRECTIONS:**

Use this checklist to monitor students who come to your office with a head injury. Students should be monitored for a minimum of 30 minutes. Check for signs or symptoms when the student first arrives at your office, 15 minutes later, and at the end of 30 minutes.

Students who experience one or more of the signs or symptoms of concussion after a bump, blow, or jolt to the head should be referred to a healthcare professional with experience in evaluating for concussion. For those instances when a parent is coming to take the student to a healthcare professional, observe the student for any new or worsening symptoms right before the student leaves. Send a copy of this checklist with the student for the healthcare professional to review.

| OBSERVED SIGNS | 0 MINUTES | 15 MINUTES | 30 MINUTES | ☐ MINUTES JUST PRIOR TO LEAVING |
|---|---|---|---|---|
| Appears dazed or stunned | | | | |
| Is confused about events | | | | |
| Repeats questions | | | | |
| Answers questions slowly | | | | |
| Can't recall events *prior* to the hit, bump, or fall | | | | |
| Can't recall events *after* the hit, bump, or fall | | | | |
| Loses consciousness (even briefly) | | | | |
| Shows behavior or personality changes | | | | |
| Forgets class schedule or assignments | | | | |
| **PHYSICAL SYMPTOMS** | | | | |
| Headache or "pressure" in head | | | | |
| Nausea or vomiting | | | | |
| Balance problems or dizziness | | | | |
| Fatigue or feeling tired | | | | |
| Blurry or double vision | | | | |
| Sensitivity to light | | | | |
| Sensitivity to noise | | | | |
| Numbness or tingling | | | | |
| Does not "feel right" | | | | |
| **COGNITIVE SYMPTOMS** | | | | |
| Difficulty thinking clearly | | | | |
| Difficulty concentrating | | | | |
| Difficulty remembering | | | | |
| Feeling more slowed down than usual | | | | |
| Feeling sluggish, hazy, foggy, or groggy | | | | |
| **EMOTIONAL SYMPTOMS** | | | | |
| Irritable | | | | |
| Sad | | | | |
| More emotional than usual | | | | |
| Nervous | | | | |

To download this checklist in Spanish, please visit cdc.gov/HEADSUP. Para obtener una copia electrónica de esta lista de síntomas en español, por favor visite cdc.gov/HEADSUP.

→ More

## Danger signs:

Be alert for symptoms that worsen over time. The student should be seen in an emergency department right away if she or he has one or more of these danger signs:

- ❑ One pupil (the black part in the middle of the eye) larger than the other
- ❑ Drowsiness or cannot be awakened
- ❑ A headache that gets worse and does not go away
- ❑ 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 a brief loss of consciousness should be taken seriously)

## Additional information about this checklist:

This checklist is also useful if a student appears to have sustained a head injury outside of school or on a previous school day. In such cases, be sure to ask the student about possible sleep symptoms. Drowsiness, sleeping more or less than usual, or difficulty falling asleep may indicate a concussion.

To maintain confidentiality and ensure privacy, this checklist is intended for use only by appropriate school professionals, healthcare professionals, and the student's parent(s) or guardian(s).

## Resolution of injury:

- ❑ Student returned to class
- ❑ Student sent home
- ❑ Student referred to healthcare professional with experience in evaluating for concussion

SIGNATURE OF SCHOOL PROFESSIONAL COMPLETING THIS FORM: _____

TITLE: _____

COMMENTS:

*Revised August 2019*

**To learn more, go to cdc.gov/HEADSUP**

CDC HEADS UP
SAFE BRAIN. STRONGER FUTURE.

# Appendix C

## Concussion Team Leader's Case Tracking Form

| Student Name | Grade | Person Who Notified | Date of Referral | Subsequent Meeting Dates | Concussion Details | Response Notes |
|---|---|---|---|---|---|---|
| 1. | | | | | | |
| 2. | | | | | | |
| 3. | | | | | | |
| 4. | | | | | | |
| 5. | | | | | | |
| 6. | | | | | | |
| 7. | | | | | | |
| 8. | | | | | | |
| 9. | | | | | | |
| 10. | | | | | | |
| 11. | | | | | | |
| 12. | | | | | | |
| 13. | | | | | | |
| 14. | | | | | | |
| 15. | | | | | | |
| 16. | | | | | | |
| 17. | | | | | | |
| 18. | | | | | | |

# Appendix D

## Concussion Symptom Log - Progress Monitoring

**Rate on 0-6 intensity scale | 0 = Not Present, 1 - 2 = Mild, 3 - 4 = Moderate, 6 = Severe**

| | Date | Date | Date | Date | Date | Date | Date | Date | Date |
|---|---|---|---|---|---|---|---|---|---|
| | Day of Injury | | | | | | | | |
| **Cognitive / Thinking Symptoms** | | | | | | | | | |
| Difficulty thinking clearly | | | | | | | | | |
| Difficulty concentrating | | | | | | | | | |
| Difficulty remembering | | | | | | | | | |
| Feeling slowed down | | | | | | | | | |
| Feeling sluggish or hazy | | | | | | | | | |
| **Physical / Fatigue Symptoms** | | | | | | | | | |
| Headache | | | | | | | | | |
| Nausea | | | | | | | | | |
| Vomiting | | | | | | | | | |
| Balance Problems | | | | | | | | | |
| Dizziness | | | | | | | | | |
| Fatigue | | | | | | | | | |
| Vison changes | | | | | | | | | |
| Sensitive to noise | | | | | | | | | |
| Sensitive to light | | | | | | | | | |
| Numbness or tingling | | | | | | | | | |
| Weakness in extremities | | | | | | | | | |
| Neck pain | | | | | | | | | |
| **Emotional Symptoms** | | | | | | | | | |
| Irritability | | | | | | | | | |
| Sadness | | | | | | | | | |
| More emotional than usual | | | | | | | | | |
| Nervous | | | | | | | | | |
| **Sleep Symptoms** | | | | | | | | | |
| Sleeping more than usual | | | | | | | | | |
| Sleeping less than usual | | | | | | | | | |
| Drowsiness | | | | | | | | | |

*Adapted from: Nationwide Children's Hospital. A School Administrator's Guide to Academic Concussion Management*

# Appendix E

## Academic Adjustments: Concussions

Following concussion, students who receive academic adjustments without penalty are more successful and better able to reintegrate into school. **Using the student's reported symptoms,** select appropriate adjustments from the list below and share with teachers

| Student Name_____ Staff Contact:_____ | ☑ | Start Date | End Date |
|---|---|---|---|
| **General** | | | |
| Adjust class schedule (alternate days, shortened day, abbreviated class, late start to the day). | | | |
| No PE classes until cleared by a healthcare professional. No physical play at recess. | | | |
| Avoid noisy and over-stimulating environments (i.e., band). | | | |
| Allow student to drop high level or elective classes without penalty if adjustments go on for a long period of time. | | | |
| Allow student to audit class (i.e., participate without producing or grades). | | | |
| Remove or limit testing and/or high-stakes projects. | | | |
| Alternate periods of mental exertion with periods of mental rest. | | | |
| **Cognitive / Thinking** | | | |
| Reduce class assignments and homework to critical tasks only. Exempt non-essential work. Base grades on adjusted work. | | | |
| Provide extended time to complete assignments/tests. Adjust due dates. | | | |
| Once key learning objective has been presented, reduce repetition to maximize cognitive stamina (i.e. assign fewer problems). | | | |
| Allow student to demonstrate understanding orally instead of in writing. | | | |
| Provide written instructions for work that is deemed essential. | | | |
| Provide class notes by teacher or peer. Allow use of computer, smart phone or tape recorder. | | | |
| Allow use of notes for test taking. | | | |
| **Fatigue / Physical** | | | |
| Allow time to visit school nurse, psychologist, or counselor for headaches or other symptoms. | | | |
| Allow strategic rest breaks (e.g., 5-10 minutes every 30-45 minutes) during the day. | | | |
| Allow hall passing time before or after crowds have cleared. | | | |
| Allow student to wear sunglasses or hat indoors. Control for light sensitivity (draw blinds, sit away from window). | | | |
| Allow student to study or work in a quiet space away from visual and noise stimulation. | | | |
| Allow student to spend lunch/recess in quiet space for rest and control for noise sensitivity. | | | |
| Provide a quiet environment to take tests. | | | |
| **Emotional** | | | |
| Develop plan so student can discreetly leave class as needed for rest. | | | |
| Provide quiet place to allow for de-stimulation. | | | |
| Keep student engaged in extra-curricular activities. Allow student to attend but not fully participate in sports. | | | |
| 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). | | | |

*Adapted from: https://www.orcasinc.com/products/brain-101/index.html and https://www.cdc.gov/heads-up/*

# Appendix F

## Sample District Policy

***Ohio's Return-to-Play Concussion Law went into effect in April 2013. This law describes the education required of those involved with student athletics, processes to follow if a concussion is suspected in a student athlete, and requirements to clear a student athlete for return to play. However, the legislation does not specify procedures for safely returning students to a learning environment. Thus, Ohio school boards are encouraged to adopt a "Student Concussion—Return to School" policy to protect all students who have sustained a concussion. Following is sample language that might be included in such a policy.***

The Board recognizes that concussions and other head injuries may occur in students through sports, recreation, accidents, and altercations. Students may return to school while they are still experiencing concussion symptoms. Such students require temporary supports and adjustments in academic expectations and the school environment. The Board acknowledges that the adoption and implementation of a "return to learn" protocol can have a significant positive impact on the recovery of all students who have sustained a concussion. As such, each school in the district is expected to:

- Provide training and continuing education for teachers and all relevant school personnel on how to recognize signs and symptoms of concussion, as well as how to manage a concussion. For example, immediately following a concussion, students might appear dazed and confused, forgetful, off-balance, nauseous, and slow to respond.
- Alert school personnel to issues students may experience after a concussion. Some students have symptom for days, weeks, or even months. Students may experience:
    - Cognitive symptoms, which can cause difficulty learning, distractibility, and memory impairment.
    - Physical symptoms, such as headaches, light/noise sensitivity, and lethargy.
    - Emotional symptoms, including irritation, anxiety, and feeling overwhelmed.
    - Sleep disturbances, such as drowsiness, insomnia, or difficulty falling asleep.
- Appoint a concussion team, with a designated concussion team leader (CTL), to monitor the student's gradual return to full academics and to collaborate with the family, health care provider, and athletic staff (if applicable).
- Allow students who have been diagnosed with a concussion "cognitive rest" initially and the opportunity to progress through a gradual return to full cognitive and academic activities.
- Provide and monitor an individualized "return to learn" plan approved by the student's health care provider. Short-term academic and environmental adjustments in such a plan might include shortened days, modified curriculum, excusals from nonessential assignments, postponed testing, and decreased exposure to bright lights and loud noises.
- Secure a written release from the student's health care provider before allowing a return to full physical activities, including physical education class.
- Have on file for each student an emergency medical authorization form, completed annually, that indicates whether the student has a history of concussion. Repeat concussions can slow recovery or increase the likelihood of long-term problems.

*CROSS REFS: Ohio Return to Learn Concussion Team Model Handbook—Ohio Department of Health (Davies, 2016)*

# Appendix G

# Sample Concussion Response Protocol

## Protocol for Concussion Sustained During a School Sponsored Athletic Practice or Competition

Student athlete exhibiting signs, symptoms, or behaviors consistent with having sustained a concussion or head injury from practice or competition.

The coach, athletic trainer (AT) or referee should:

- Immediately remove the student from practice or competition.
- Call 911 if needed and notify the parent/guardian.
- Refer the student to be examined by a physician.
- Prohibit the athlete to return to play on the same day as he/she is removed.

Athletic Trainer (AT) notifies the CTL of the concussion the next school day. The CTL informs relevant team members.

### ATHLETIC TRAINER (AT) RESPONSIBILITIES:

- Student is given Concussion Symptom Log to complete daily.
- Starts documentation including date and detail of injury, notes of immediate care, parent contact, follow-up with athlete, post-concussion symptom scales, medical advice.
- Forwards any doctor's orders to the school nurse.
- Checks as often as possible with student, coach, and/or school nurse regarding symptoms.
- Athletic Trainer follows up with doctor on return to play and other recommendations.

### ATHLETIC DIRECTOR RESPONSIBILITIES:

Maintains an ongoing database of all athletes that have sustained a concussion to address crossover between sports.

### SCHOOL PSYCHOLOGIST RESPONSIBILITIES:

- Contacts parents and sends home concussion handout and copy of academic adjustment plan.
- Sends school nurse copy of adjustment plan.
- Consults with AT and school nurse on symptoms & recovery.

### SCHOOL NURSE RESPONSIBILITIES:

- Distributes adjustment plan to student's teachers.
- Checks with student regularly regarding symptoms, work load, school performance.
- Checks with teachers weekly regarding adjustment plan.

### TEACHERS RESPONSIBILITIES:

Follows the adjustment plan.

Monitor student and document what symptoms/ problems they observe – report those concerns to school nurse.

**School must have *written clearance* from licensed physician in order to begin return to play protocol.**

If student continues to be **symptomatic,** the school schedules IAT meeting. A 504 Plan may be requested by the parents at any time or considered by the IAT; or a referral for suspected disability (TBI) may occur.

If, **asymptomatic**, reduce adjustments slowly until none are needed

# Sample Concussion Response Protocol - Part 2

## Protocol for a Concussion That is NOT Sustained During a School Sponsored Athletic Practice Or Competition

Student sustains a head injury at school or on the bus, and is exhibiting signs, symptoms, or behaviors consistent with having sustained a concussion or head injury **OR** the student, parent/guardian or physician report a concussion or head injury to school personnel that was sustained by a student outside of the school.

**If occurs at school immediately follow First Aid Guidelines for Head Injury:**

- Call 911 if the student develops symptoms of concussion, loss consciousness, seizures.
- Notify the school nurse.
- Notify parent/guardian.
- Refer the student to be examined by a physician if not transported by squad.

The School Nurse will notify the Principal and CTL. If the Student is a school athlete the CTL will notify the Athletic Trainer and/or the Athletic Director.

**SCHOOL NURSE RESPONSIBILITIES:**

- Obtains physician orders and collaborates with TBI-SP to develop adjustment plan.
- Distributes adjustment plan to student's teachers.
- Checks with student regularly regarding symptoms, work load, and school performance.
- Checks with teachers weekly regarding adjustment plan.
- Documents occurrence and progress.

**SCHOOL PSYCHOLOGIST RESPONSIBILITIES:**

- Contacts parents and sends home concussion handout and copy of academic adjustment plan.
- Sends School Nurse copy of adjustment plan.
- Consults with School Nurse on symptoms & recovery.

**TEACHERS RESPONSIBILITIES:**

Follows the adjustment plan.

Monitor student and document what symptoms/ problems they observe – report those concerns to school nurse.

**IF STUDENT IS AN ATHLETE THE AT AND AD RESPONSIBILITIES:**

- Student is given Concussion Symptom Log to complete daily.
- Communicates frequently with student, coach, and/or school nurse regarding symptoms.
- Athletic Trainer follows up with doctor on return to play and other recommendations.
- Enter student into concussion database.

**School must have *written clearance* from licensed physician in order to begin return to play protocol.**

If student continues to be **symptomatic,** the school schedules IAT meeting. A 504 Plan may be requested by the parents at any time or considered by the IAT; or a referral for suspected disability (TBI) may occur.

If, **asymptomatic**, reduce adjustments slowly until none are needed

*Modified from Columbus City Schools Concussion Management Program*