



RETURN TO LEARN

What is a concussion?

A concussion is a *type of traumatic brain injury* that is the result of a biomechanical force, such as a bump, blow or jolt to the head or elsewhere on the body that transmits forces to the head and neck. These forces cause the brain to move rapidly inside the skull which can lead to functional disturbances of the brain. Chemical changes and damage to brain cells may occur in a concussion, but it is important to understand that *a concussion affects the function of the brain, not the brain's structure.*

Nobody can see a concussion injury. Tests such as MRIs and CT scans will **NOT** show a concussion. Concussions are diagnosed by a physician through a comprehensive exam which includes an understanding and observation of the student's signs and symptoms and administering a series of neuro-cognitive tests which indicate the level and quality of brain function at the time of the exam.

On July 1, 2011 the Kansas Legislature's School Sports Head Injury Prevention Act went into effect. This law can be summarized as follows:

- A school athlete may not participate in any sport competition or practice session until both the participating student and the student's parent/guardian has signed and returned to the school, a concussion and head injury information release form. This form is an annual requirement.
- If a school athlete suffers, or is suspected of having suffered, concussion or head injury during a sport competition or practice session, the student shall be immediately removed from the sport competition or practice.
- Any school athlete who has been removed from a sport competition or practice session shall not return to competition or practice until the athlete is evaluated by a health care provider and the health care provider provides such athlete a written clearance to return to play or practice.

For the full language of the Kansas law and KSHSAA concussion management guidelines, click [HERE](#).

Based on a survey of over 1250 Kansas high school educators, did you know

- 34% of Kansas high school teachers report seeing decreases in academic performance in students after a concussion.
- 45% of Kansas high school teachers report observing students return to the classroom with learning difficulty after a concussion.
- 42% of Kansas high school teachers who don't coach have received any type of concussion training from their district.
- 36% of Kansas high school teachers report that their school district has a Return to Learn plan in place for their students. Out of this 36%, 23% have been provided a copy of the plan.
- Less than 19% of Kansas high school teachers report that their school or district provides any type of training to review academic accommodations for concussed students.
- 35% of Kansas high school teachers who don't coach are aware of the KSHSAA concussion guidelines.
- 44% of Kansas high school teachers report that their school has a staff member assigned to authorize academic accommodations for students recovering from a concussion.

I'm a classroom teacher, why do I need to understand sports related concussions?

Every concussion is different and can affect students in many different ways. Concussion recovery is dependent upon both mental and physical rest. Academic demands such as concentration, information processing, memory and focus require the brain to be working at optimal levels. A concussion is a functional injury to the brain and for the brain to heal and recover back to a normal level some amount of rest is needed, including rest from academic demands. Forcing the brain to handle academic stresses too early after a concussion will slow down and interfere with the brain's healing and recovery. Research has shown post-concussion students with difficulty in memory and vision issues are more likely to have school-related problems. Excessive academic expectations to make-up school work quickly can create a learning barrier for the student. By coordinating the amount of homework, this can lessen the burden and potential concussion symptoms.



How does a concussion affect learning?

A concussed brain is not working at a normal functional level. The brain must work harder and longer to process information which can adversely affect the student's academic achievement. By forcing the injured brain to process information rather than rest, symptoms may be prolonged or exacerbated. Other things such as screen time on computers and tablets and projector/whiteboard viewing can also increase symptoms and may need to be minimized or eliminated early in the recovery process.

What should we consider as our school develops a return to learn plan for students recovering from a concussion?

Create a team

A school administrator, possibly the athletic director should take the lead in creating a Concussion Management Team in the school. Depending on the size of school and what personnel are available, this team may consist of the athletic director, teachers, school nurse, school counselor, athletic trainer, physician, coaches and obviously the concussed student and his/her parents.

The goal of the concussion management team is to create an organized and collaborative approach to help the student safely and comfortably reintegrate back into the classroom setting. Effective communication is the key as everyone involved in the student's education must be aware of the student's status at that moment and what school and classroom triggers need to be avoided. Ideally one person on the management team will serve as the point person, monitoring the student multiple times throughout the day and coordinating the flow of information between all other members of the team.

It is important that any communications and instructions from medical providers outside of the school setting are being shared with school personnel. The student's parents can play a key role in this process of keeping the lines of communication open between the student's physician and the school.

Train the team

School personnel who may be involved as members of the concussion management team need to be trained annually. Some items that should be part of the training are understanding the signs and symptoms of concussions, recognizing triggers that negatively impact students recovering from a concussion, understanding appropriate and effective accommodations, a review of everyone's role on the concussion management team and a review of the different phases of the return to learn progression.

At times student-athletes may try to hide a concussion from their teachers, coaches, parents, or athletic trainer. At other times they may not even realize they sustained a concussion. Therefore, it is important for everyone involved in the education of the student to know the signs and symptoms of a concussion.

Concussion Signs & Symptoms

Physical

Headache
Feeling of pressure in the head
Neck pain
Nausea or vomiting
Light sensitivity
Noise sensitivity
Balance problems
Dizziness
Blurry vision

Cognitive

Confusion
Feeling "in a fog"
Concentration difficulties
Memory difficulties
Feeling "slowed down"

Emotional

Irritability
Sadness
Nervous/anxiousness

Sleep

Drowsiness
Fatigue/low energy
Trouble falling asleep



Understanding accommodations

As already mentioned every student reacts differently to a concussion. The key is to understand what triggers lead to an increase in the student's concussion symptoms and to avoid or minimize those triggers. Communication is key between the members of the concussion management team to ensure everyone understands what triggers to avoid. Certain classes such as math that requires a lot of cognitive processing or classes that require a lot of reading may initially be hard for a concussed student to tolerate. Therefore, accommodations in these courses may differ from lesser cognitive courses. Other courses demonstrating more challenges are Science (e.g. Biology & Chemistry), English, Social Studies, and Foreign Language. Also, students attending higher levels of cognitive courses (e.g. Honors, AP) may experience longer recovery periods. Obviously, students should not participate in any type of physical education class until they are fully participating in cognitive learning and cleared by a physician to begin physical activity. Under physician direction some students may begin a light exercise program before symptoms totally resolve, provided there is no exacerbation of problems. This light exercise could potentially take place in PE if indicated by the physician.

Education accommodations that may need to be considered during the student's recovery:

- No school or a limited school schedule for the first few days post-injury.
- Excused from certain classes that trigger symptoms (e.g., noise in shop class).
- No homework while the student is still recovering.
- Minimize or eliminate catch-up work requirements. Ensure any catch-up work is reasonable and doesn't create more stress for the student.
- Allowing the student to work in an isolated/quiet environment while at school.
- Limiting reading requirements.
- Allowing the student to do light academic work in the library during a more difficult class.
- Sitting further away from a bright window.
- Avoiding computer screens
- Providing assistance with note taking.
- Postponing exams until the student has recovered.

Students suffering from long-term concussion symptoms can be considered for an IEP or 504 plan.

These are suggestions of accommodations to be considered by the concussion management team. Other accommodations may also be appropriate and not all of the accommodations listed may be necessary.

Design a progression that can be followed which gradually reintegrates the student to the classroom. (See a sample Return to Learn plan template at the end of this document.)

Potential phases for reintegration to the classroom:

Phase 1: No school, limited daily activities at home

Phase 2: No school, introduction of school work at home with increasing home daily activities

Phase 3: Return to school part-time with necessary accommodations

Phase 4: Return to school full-time with necessary accommodations

Phase 5: Full-time school attendance with no accommodations*

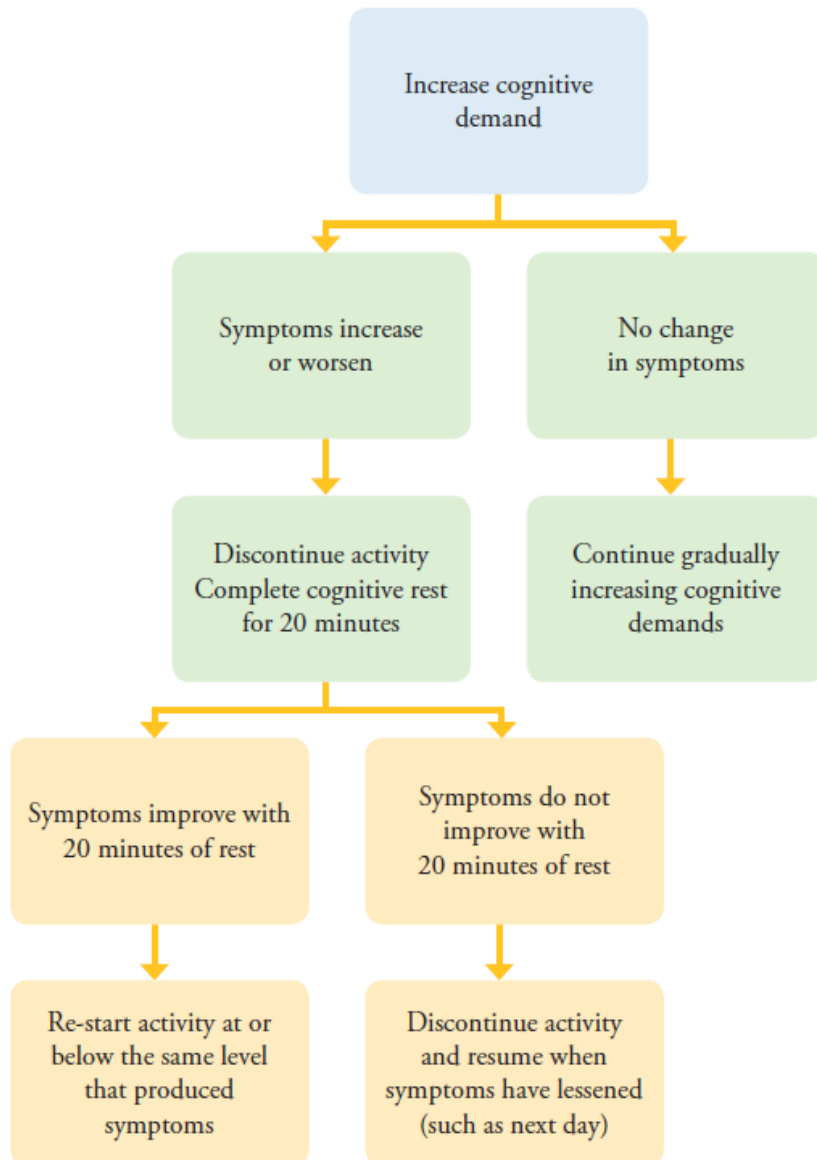
If a student does fine in one phase with no setbacks, they can advance to the next phase the following day.

Not all students recovering from a concussion will need to go through all of these phases or require academic accommodations. In fact, many students recovering from a concussion will not need to miss any school at all. The phases above represent a general progression for a student with lingering concussion signs and symptoms, but who may still be able to handle some level of cognitive demand.

* A student SHOULD NOT begin the return to play progression for sports or PE until he/she is meeting all academic demands on a full-time basis with no accommodations and no relapse in concussion symptoms. Under physician direction, some students may begin a light exercise program before symptoms totally resolve, provided there is no exacerbation of problems.



Within each phase of a return to learn progression, you may notice a student struggling or doing very well. Following is a chart that can assist you in managing the student's progression throughout the day.





Name _____ M F Birthdate _____ Date of Injury _____

Sport/Team/School _____ Phone _____

Primary Care Physician _____ Phone _____

Concussion Management Team Leader _____ Phone _____



When can the student-athlete return to school? It will depend on the individual. Every student's injury and recovery are unique and require careful observation from parents and doctors. Promote recovery and prevent ongoing symptoms by following a Return to Learn plan like the one below. *The physician will customize a plan to allow recovery at student's own pace.*

Schools should identify a team leader to work with each student-athlete who sustained a concussion to facilitate a safe return to learn. This identified team leader should establish a communication system between the physician, athletic trainer, school administrators, teachers, coaches, school nurse, school counselor, parent/guardian and any other members.

STUDENT MAY NOT ATTEND SCHOOL. Student may participate in daily activities at home as long as they do not increase symptoms (e.g., reading, texting screen time). Start with 5 to 15 minutes at a time and gradually build up. *Goal: Gradually return to typical activities.*

SCHOOL ACTIVITIES AT HOME. Start homework, reading or other cognitive activities outside of the classroom. Continue to limit at-home activities that can worsen symptoms, such as loud music, television, computer screen time, texting, etc. *Goal: Increase tolerance to cognitive work.*

RETURN TO SCHOOL PART-TIME. Gradual introduction of schoolwork, but will require accommodations depending on their current symptoms. Continue to work with the student to identify any specific classroom subjects (e.g. math, science, foreign languages) and activities and that could be worsening symptoms. *Goal: Increase academic activities.*

RETURN TO SCHOOL FULL-TIME. Gradually progress school activities until a full day can be tolerated. Work with the student to ensure a classroom "catch-up" plan is in place. Student may fully participate in normal classroom activities — except with restrictions as noted below. *Goal: Return to full academic activities.*

NORMAL CLASSROOM. Student may fully participate in normal classroom activities without accommodations.

Do NOT participate in:

- PE class
- Weightlifting
- Band or Music
- Wood or Metal shop
- Debate/Forensics
- Other Subjects: _____
- Homework
- Exams or Quizzes
- Research Papers
- Computer/Tablet Use
- Video Games or Movies
- Drive/operate heavy equipment
- Activities involving heights
- Other: _____

Classroom Accommodations:

Breaks:

- Allow student to go to nurse's office if symptoms increase.
- Allow student to go home if symptoms do not subside.
- Allow other breaks during school day as necessary and appropriate.

Visual Stimulus:

- Allow student to wear sunglasses/hat in school.
- Limit bright screen use of computer or television.
- Provide note taker.
- Reduce monitor brightness.
- Change classroom seating.

Audible Stimulus:

- Lunch in a quiet place with a friend.
- Avoid music, band or wood/metal shop class.
- Allow to wear earplugs as needed.
- Allow class transitions before bell.

Workload/Multi-Tasking:

- Reduce overall amount of homework, make-up work and class work.
- Prorate workload when possible.
- Reduce amount of homework.
- Allow for scribe, oral responses, and oral questions.

Physical Exertion:

- Walking in gym class only.
- Other: _____

Testing:

- Additional time to complete tests.
- No more than one test a day.
- No standardized testing until: _____ (date).

Specialized Instruction:

- Request extended learning plan be developed (could include IEP, 504, etc.)

Other Accommodations:

The student-athlete should not go back to sports until they are able to fully participate in normal classroom activities without accommodations. To start the process for returning athlete to their sport, use the **Warm-up to Play Release Form 3**.

Concussion symptoms may develop within days after a head injury. The patient should continue to be observed for any new symptoms.

Medical Professional Signature: _____ Date _____

Additional Instructions: _____



REFERENCES

A school administrator's guide to academic concussion management. Accessed March 2019 at <https://www.nationwidechildrens.org/specialties/concussion-clinic/concussion-toolkit/a-school-administrators-guide-to-academic-concussion-management>.

An educator's guide to concussions in the classroom. Accessed March 2019 at <https://www.nationwidechildrens.org/specialties/concussion-clinic/concussion-toolkit/an-educators-guide-to-concussions-in-the-classroom>.

Bomgardner, R. K. (2019). High school faculty awareness of post-concussion return-to-learn policies. Unpublished manuscript.

McCroly P, Meeuwisse WH, Dvorak J, et al. Consensus statement on concussion in sport: the 5th international conference on concussion in sport held in Berlin, October 2016. Br J Sports Med 2017;51(11):838-847.

Return to learn classroom rx. Accessed March 2019 at <http://www.kansasconcussion.org/pdf/KSCP%20SCORE%20Card%202.pdf>

Returning to school after a concussion: A fact sheet for school professionals. Accessed March 2019 at https://www.cdc.gov/headsup/pdfs/schools/TBI_Returning_to_School-a.pdf.

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