



Return to the classroom following concussion

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Collaboration in Concussion Management

The interdisciplinary team

- Physician
- Nurse Practitioner
- Athletic trainer
- Teachers
- Counselors
- Psychologists
- Coaches

McGrath, N., J Athl Train. 2010



"Is this a foreleg? Back leg? Antenna? It's hopeless! We'll never ... Oh, thank God. Here comes an athletic trainer!"

Significance of Return to Classroom Following Concussion

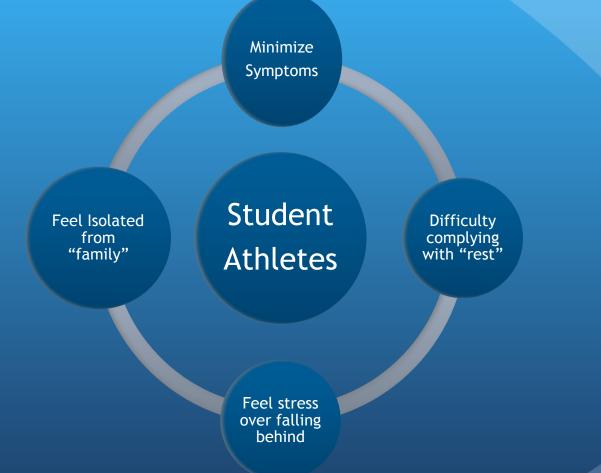
Symptoms interfere with learning

Symptoms may not emerge for 2-3 days

Increased cognitive exertion can increase symptoms

Sady MD, Vaughan CG, Gioia GA. Phys Med Rehabil Clin N Am 2011. Carson J, Lawrence D, Frémont P, et al. Canadian Family Physician 2014.

Common responses to injury

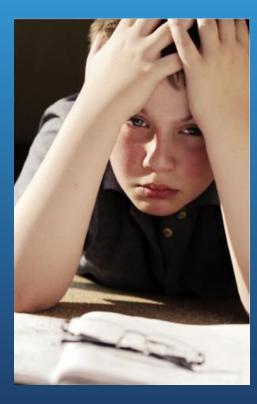


Etzel, E. F., Ferrante, A. P., & Pinkney, J. W. (Eds.). (1996). Counseling college student-athletes: Issues and interventions.



Minimizing Symptoms

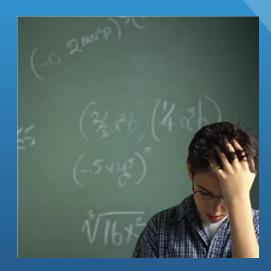
Usually not on purpose Automatic reply to "How are you?" Gauge injuries by an athlete's standard When activities requiring cognitive exertion are resumed too soon following concussion symptoms may be exacerbated and ultimately recovery can be prolonged.



Carson J, Lawrence D, Frémont P, et al. Canadian Family Physician June 2014.

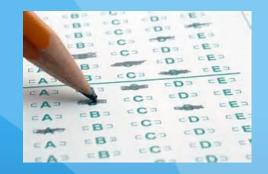
Common Concussion Symptoms

- Impaired concentration/memory
- Headaches
- Nausea
- Sensitivity to light/sound
- Slowed information processing
- Irritability
- Anxiety



McCrory P, Meeuwisse WH, Aubry M, Cantu B, Dvorak J, Echemendia RJ, et al. 2012. Br J Sports Med 2013.

Demands of Academics



- May have exams/papers due in coming days.
- Student-athletes are often high achieving academically and have high standards for themselves.
- Concerned about further missing class and perceptions of instructors.
- Used to "doing what it takes."
- Stress can exacerbate concussion symptoms and can prolong recovery.

Waldron-Perrine B, Hennrick H, Spencer R, Pangilinan P, Bieliauskas L. Military Medicine 2014.

Feelings of Isolation from Team/ "Family"

- Letting team down.
- Loss of role/identity.
- Can result in feelings of sadness and anxiety that impact academics.



Difficulty Complying with Rest

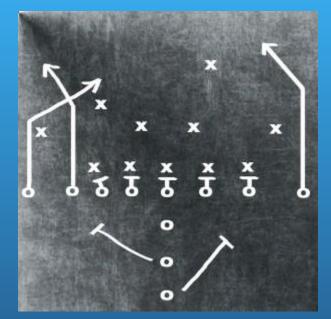
• "From 100 mph" to complete



May try to exercise/do homework to mitigate falling behind.

 Loss of coping mechanism of staying busy = emergence of previously ignored emotional issues.

What's our strategy?





Addressing Minimizing of Symptoms

- Acknowledge the *mind-set* of the student-athlete and explain the *mental shift* that must occur to maximize recovery from concussion.
- Discuss impairments that may not be considered symptoms by the studentathlete.
- Provide opportunity for follow-up once academics are resumed.



TO DOLLST. Follow Up

Identification of Academic Accommodations

"Stay below symptom threshold."

- Consideration for absences
- Shorter school day/focus on core classes
- Deferral of exams
- Extensions on assignment due dates
- Note taker
- Sunglasses in class
- Extra time for exams

Baker J, Rieger B, Willer B, et al. International Journal Of Clinical Practice. 2014.





"Teachers need clear guidelines/timelines related to classwork/homework expectations.

Written guidelines are imperative - parents sometimes misinterpret physician's recommendations. Written guidelines can then be disseminated to teachers accordingly."

Rand Van Dyke, Santa Rosa City Schools

	to School

To Whom It May Concern:

INJURY STATUS

Patient Name: _____

_____ DOB: _____

Date of Concussion Diagnosis by MD/DO:

Date:

Has been diagnosed by a MD/DO with a concussion and is currently under our care.

Medical follow-up evaluation is scheduled for (date): ____

Was evaluated and did not have a concussion injury. There are no limitations on school and physical activity.

ACADEMIC A	ACTIVITY STATUS	(Please mark all that apply)
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This student is not to return to school.

This student may begin a return to school based on successful progression through the CIF Concussion Return to Learn Protocol. This student requires the necessary school accommodations set forth on the Physician (MD/DO) Recommended School Accommodations Following Concussion form.

_ This student is no longer experiencing any signs or symptoms of concussion and may be released to full academic participation.

Comments: ____

PHYSICAL ACTIVITY STATUS (Please mark all that apply)

- This student is not to participate in physical activity of any kind.

_ This student is not to participate in recess or other physical activities except for untimed, voluntary walking.

____ This student may begin a graduated return to play progression (see CIF Concussion RTP Protocol form).

This student has medical clearance for unrestricted athletic participation (Has completed the CIF Concussion RTP Protocol).

Comments:

Physician (MD/DO) Signature: ______ Exam Date: _____

Physician Stamp and Contact Info:

Parent/Guardian Acknowledgement Signature:

CIFSTATE.ORG

atient Name:			Date:
	, give permission for my physician to share the following information with my child's school and fo		
mmunication to occur betwee	n the school and my physician for changes to	this plan. Parent Signature:	

This patient has been diagnosed with a concussion (a brain injury) and is currently under our care. Please excuse the patient from school loday due to the medical appointment. Flexibility and additional supports are needed during recovery. The following are suggestions for academic adjustments to be individualized for the student as deemed appropriate in the school setting. Adjustments can be modified as the student's symptoms improve/worsen. Please see the CIF Return to Learn Protocol for more information (cistate.org).

Area	Requested Modifications	Comments/ Clarifications
Attendance	No School No School Parial School day as tolerated by student – emphasis on core subject work Enouraced Classes: Discouraced Classes: Full School day as tolerated by student Water bottle in class/snack every 3-4 hours	
Breaks	If symptoms appear/ worsen during class, allow student to go to quiet area or nurse's office; if no improvement after 30 minutes allow dismissal to home <u>Mandatory Breaks:</u> Allow treaks during day as deemed necessary by student or teachers/school personnel	
Visual Stimulus	Enlarged print (18 font) copies of textbook material / assignments Pre-printed notes (18 font) or note taker for class material Limited computer, TV screen, bright screen use Allow thandwritten assignments (as opposed to typed on a computer) Allow student to wear sunglasses/mat in school; seat student away from windows and bright lights Reduce brightness on monitors/screens Change classroom sealing to from of room as necessary	
Auditory Stimulus	Avoid loud classroom activities Lunch in a quiet place with a triend Avoid loud classes/places (i.e. music, band, choir, shop class, gym and cafeteria) Allow student to wear earplugs as needed Allow dass transitions before the bell	
School Work	Simplify tasks (i.e. 3 step instructions) Short breaks (5 minutes) between tasks Reduce overal amount of nichcass work Prorate workload (only core or important tasks) /eliminate non-essential work No homework Reduce amount of nightly homeworkminutes per class;minutes maximum per night; take a break everyminutes Will attempt homework, but will stop if symptoms occur Extra tutoing/assistance requested May begin make-up of essential work	
Testing	No Testing Additional time for testing/ untimed testing Additional time for testing/ untimed testing Atternative Testing methods: oral delivery of questions, oral response or scribe No more than one test a day No Standardized Testing	
Educational Plan	Student is in need of a 504 Plan and/or IEP (if prolonged symptoms are interfering with academic performance)	
Physical Activity	No physical exertion/athletics/gym/tecess Walking in PE class/recess only May begin graduated return to play protocol; see CIF Return to Play (RTP) protocol (citistate.org)	

California Interscholastic Federation (CIF)

Revised, 03/2016 CIF

CIF Concussion Return to Learn (RTL) Protocol

Instructions:

- Keep brain activity below the level that causes worsening of symptoms (e.g., headache, tiredness, irritability).
- If symptoms worsen at any stage, stop activity and rest.
- Seek further medical attention if your child continues with symptoms beyond 7 days.
- If appropriate time is allowed to ensure complete brain recovery before returning to mental activity, your child may have a better outcome than if he or she tries to rush through these guidelines.
- · Please give this form to teachers/school administrators to help them understand your child's recovery.

Stage	Home Activity	School Activity	Physical Activity		
Brain Rest	Rest quietly, nap and sleep as much as needed. Avoid bright light if bothersome. Drink plenty of fluids and eat healthy foods every 3-4 hours. Avoid "screen time" (text, computer, cell phone, TV, video games). Progress to the next is	No school. No homework or take-home tests. Avoid reading and studying. This step usually ends 3-5 days after injury. stage when your child starts to improve, but she may still h	Walking short distances to get around is okay. No exercise of any kind. No driving.		
Restful Home Activity	 Set a regular bedfime/wake up schedule. Allow at least 8-10 hours of sleep and naps if needed. Drink lots of fluids and eat healthy foods every 3-4 hours. Limit "screen time" to less than 30 minutes a day. 	 No school. May begin easy tasks at home (drawing, baking, cooking). Soft music and 'books on tape' ok. Once your child can complete 60-90 minutes of light mental activity without a worsening of symptoms he/she may go to the next step. 	Light physical activity, like walking. No strenuous physical activity or contact sports. No driving.		
	Progress to the next stage when your child starts to improve and s/he has fewer symptoms.				
Return to School - PARTIAL DAY	 Allow 8-10 hours of sleep per night. Avoid napping. Drink lots of fluids and eat healthy foods every 3-4 hours. "Screen time" less than 1 hour a day. Spend limited social time with thends outside of school. 	Gradually return to school. Start with a few hours/half-day. Take breaks in the nurse's office or a quiet room every 2 hours or as needed. Avoid loud areas (music, band, choir, shop class, locker room, cafeteria, loud hallway and gym). Use sunglasses/ earplugs as needed. Sit in front of class. Use preprinted large tont (18) class notes. Complete necessary assignments only. No tests or quizzes. Limit homework time. Multiple choice or verbal assignments better than lots of long writing. Tutoring or help as needed. Stop work if symptoms increase.	Light physical activity, like walking, and as instructed by physician. No strenuous physical activity or contact sports. No driving.		
	Progress to the ne	xt stage when your child can complete the above activities	without symptoms.		
Return to School - FULL DAY	Allow 8-10 hours of sleep per night. Avoid napping. Drink lots of fluids and eat healthy foods every 3-4 hours. "Screen time" less than 1 hour a day. Spend limited social time with thiends outside of school. Progress to the next stage when your	Progress to attending core classes for full days of school. Add in electives when tolerated. No more than 1 test or quiz per day. Give exits time or untimed homework/tests. Tutoring or help as needed. Stop work if symptoms increase. child has returned to full school and is able to complete all	Light physical activity, like walking, and as instructed by physician. No strenuous physical activity or contact sports. No driving. assignments/tests without symptoms. Must complete Graduated Return to		
Full Recovery	 Return to normal home and social activities. 	Return to normal school schedule and course load.	 Wast compare Graduated return to Play (RTP) Protocol before returning to strenuous physical activity or contact sports. 		

California Interscholastic Federation (CIF)

Addressing Difficulty with Compliance with Rest

- Suggest concrete ways to participate in their medical care/recovery.
 - Maintaining good nutrition.
 - Symptom selfassessment/monitoring.
 - Participation in ADL's that do not increase symptoms.
- Provide guidance on when cognitive/physical activities can be resumed as they recover.







"I couldn't remember how I got home after practice, or what had just happened in class. I felt like I was going crazy."

"Why was I yelling at my teammates? That just wasn't like me."



Recommendations for emotional support should concussion symptoms persist and impact studentathlete's mood/daily activities.







Summary

> Incorporate team approach.

- Promote rest, especially during initial days following injury.
- > Consider culture of sport.
- > Advise to stay below symptoms threshold.
- > Encourage academic accommodations.
- \succ Be alert for emotional issues that can arise.
- > Provide opportunities for follow-up.

Thank you!

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