

D127 Concussion Protocol Return to Learn and Return to Play

Submitted: April 1, 2015 Adopted: August 1, 2015

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I. PURPOSE

The following policy and procedures on education, baseline testing, and subsequent assessment and management of concussions, as well as return to learn and return to play guidelines, have been developed in accordance with the Youth Sports Concussion Act (Public Act 099-0245) and the Illinois High School Association to provide quality healthcare services to each student of Grayslake District 127.

A. THE CONCUSSION OVERSIGHT TEAM

In accordance with the Youth Sports Concussion Act, the Grayslake School District has established a Concussion Oversight Team (COT). The COT's primary function is to develop return-to-play and return-to-learn protocols for students believed to have experienced a concussion. The protocols are based on peer-reviewed scientific evidence consistent with guidelines from the Center for Disease Control and Prevention. The COT consists of a physician licensed to practice medicine in all of its branches, certified athletic trainers, and district employees, including athletic directors, school nurses, school counselors, and administrators.

B. EDUCATION

All interscholastic coaches will need to complete a training program of at least two hours on concussions. Coaches and nurses must provide the school or district with proof of successful completion of the training. Training must be completed every two years. Head coaches and assistant coaches must complete the required training as well as all members of the Concussion Oversight Team. This training is in-line with IHSA policy and may include classroom teaching, website information, collateral materials and other forms of teaching.

II. INTRODUCTION TO CONCUSSION

A concussion is a complex pathophysiological process affecting the brain caused by a traumatic physical force or impact to the head or body, which may include temporary or prolonged altered brain function resulting in physical, cognitive, or emotional symptoms or altered sleep patterns and which may or may not involve a loss of consciousness.

Students who show or report one or more of the signs and symptoms listed below, or simply say they just "don't feel right" after a bump, blow, or jolt to the head or body, may have a concussion or more serious brain injury. While loss of consciousness is a symptom of concussion, the majority of concussions in sport occur without loss of consciousness.²

Signs and symptoms of concussion include:1,5

Physical	Cognitive	Emotional	Sleep
 Headache Dizziness Nausea Vomiting Sensitivity to noise or light Balance problems Blurry vision Any loss of consciousness 	 Confusion Difficulty concentrating Difficulty thinking clearly Difficulty remembering new information Taking longer to figure things out Amnesia 	 Irritability Sadness Mood swings Feeling nervous or anxious Crying more 	 Sleeping more than usual Sleeping less than usual Trouble falling or staying asleep Feeling tired

Concussion typically results in the rapid onset of short-lived impairment of neurologic function that resolves spontaneously. However, in some cases, symptoms and signs may evolve over a number of minutes to hours. In some cases, problems can arise over the first 24-48 hours. The student should not be left alone and must immediately seek emergency care if they:²

- Have a headache that gets worse or does not improve
- Lose consciousness
- Are very drowsy or can't be awakened
- Have repeated vomiting
- Behave unusually or seem confused; are very irritable
- Have seizures (arms and legs jerk uncontrollably)
- Have weak or numb legs
- Have difficulty balancing
- Have slurred speech
- Have any symptoms that worsen

It is important to note that the recovery from a concussion is a very individualized process. Caution must be taken not to compare students with concussions as they progress through the recovery process.

Points of Emphasis:

- For the concussion management plan to be initiated, injury documentation must be provided to a D127 Nurse or Certified Athletic Trainer following evaluation by one of the following health care professionals:
 - Physicians licensed to practice medicine in all its branches (MD/DO)
 - Certified Athletic Trainers (ATC)
 - Advanced Practice Nurses (APN)
 - Physician Assistants (PA)
- Written clearance for return to physical and full cognitive/academic activities is required from one of the above designated health care providers.
- If a student-athlete is seen by an Emergency Room/Acute Care Center Licensed Physician, the student-athlete may be required to see their Primary Care Physician or concussion specialist prior to receiving full clearance.
- FOR THE STUDENT-ATHLETE: Upon return to school, it is important that the student-athlete report to a School Nurse AND Certified Athletic Trainer daily to monitor symptoms and determine progression to the next stage within this concussion management plan.
- FOR THE STUDENT-ATHLETE: Low intensity, cardiovascular activity may be introduced prior to starting a formal Return to Play under the supervision of a certified athletic trainer.
- FOR THE NON-ATHLETE STUDENT: Report daily to a School Nurse ONLY.

III. CONCUSSION MANAGEMENT PLAN

A. Concussion Assessment Tools

FOR THE STUDENT-ATHLETE:

The Sport Concussion Assessment Tool (SCAT5) is a standardized tool that may be used to evaluate a suspected head injury. It is a screening tool designed for use only by qualified healthcare providers.

ImPACT (Immediate Post-Concussion Assessment and Cognitive Testing) is a neurocognitive assessment used by District 127 for all of its student-athletes. ImPACT is a computer based test administered online in a controlled environment. ImPACT has two components: baseline testing and post injury testing which are used in conjunction to determine if a patient can safely return to activity. Baseline testing is used to establish the student-athlete's "normal" pre-injury performance level and to provide the most reliable benchmark against which to measure post-injury recovery. This information will be used to assess any changes in brain function in the event a student experiences a concussion. The Baseline evaluation is valid for two years, however, students may be asked to perform another evaluation prior to the expiration of their previous baseline. Results of the testing will be made available to the parent upon request.⁴

FOR THE NON-ATHLETE STUDENT:

The ACE (Acute Concussion Evaluation) assessment tool from the CDC (Center for Disease Control and Prevention) will be used when evaluating the non-athlete student for a possible concussion. The ACE is intended to provide an evidence-based clinical protocol to conduct an initial evaluation and diagnosis of patients (both children and adults) with known or suspected head injury. ⁶

B. Concussion Evaluation - Certified Athletic Trainer/School Nurse

A head injury evaluation may be warranted if a student has any observed or reported symptoms, sustained a significant blow to the head or body, or disclosure of a head injury (by student or other person). If a student is suspected to have a head injury, he/she will be removed from activity until they are evaluated and cleared to return to activity by a qualified healthcare provider (physician, APN, PA, school nurse, certified athletic trainer). Any students with a suspected head injury during school hours should be evaluated by the school nurse. It is the responsibility of the supervising adult to ensure that the school nurse is summoned or the student is accompanied to the nurse for evaluation. The school nurse will follow the concussion management plan and will notify parents/guardians and provide them with care instructions.

FOR THE STUDENT-ATHLETE:

If a student-athlete sustains a possible head injury outside of school hours, the coach, certified athletic trainer or supervising adult will remove the student from the activity and notify the student's parents/guardians. The supervising adult will notify the school nurse/certified athletic trainer on the next school day and complete the accident report. If a certified athletic trainer is present, he/she will conduct an evaluation, notify parents/guardians if a concussion is suspected, provide home care instructions, and will also notify the school nurse.

FOR THE NON-ATHLETE STUDENT:

If the student sustains a head injury in an activity not affiliated with the school, the parents/guardians should notify the school nurse. Any student deemed to have a concussion by the school nurse must be evaluated by a qualified healthcare provider (physician, APN, PA, school nurse, certified athletic trainer). Any student diagnosed with a concussion will begin the concussion management plan supervised by the school nurse and school counselor.

C. Return to Learn (RTL)

The school nurse along with the student's counselor will supervise students in the RTL program. Students with a concussion will progress through stages of recovery at their own pace. Initially, both cognitive and physical rest have been shown to be important factors in the quick resolution of concussion symptoms.² Based on a student's individual progress, the RTL plans can be modified as appropriate. If a student is not progressing, or there is an indication of a more serious head injury, the school nurse will notify the student's parents/guardians.

The student may be required to see their primary care physician prior to continuing his or her RTL program.

The student is encouraged to meet with the school counselor regularly to discuss progress, grades, and status of make-up work.

Academic Stage	Examples of Appropriate Academic Activity	Objective
1. No Activity	- Cognitive Rest - no school work, computer usage, reading, or physical activity	- To allow most severe physical and cognitive symptoms to decrease to manageable levels so that a student can begin to function in a school environment
2. School Re-entry	- Part-time school attendance - Limit computer usage - Breaks during school day for cognitive rest - Short periods of cognitive work	- Return to school avoiding environments and tasks that worsen symptoms Begin to re-integrate student into and discover tolerance for various school activities - Provide accommodations to address specific symptoms
3. Full-day Attendance with Accommodations	- Gradually increase cognitive work as tolerated by student: completing additional class assignments, homework, and assessments - Continue to provide breaks during the school day as needed by student	- Increase participation in all academic activities as symptoms decrease - Continue to provide accommodations to address specific symptoms - Reduce level of accommodations required
4. Full-day Attendance without Accommodations	- Follow through on a plan to make-up missed academic work and assessments - Gradual return to physical education and extracurricular athletics per Return to Learn PE & Return to Play protocols	- Return to full academic functioning when symptoms are very mild or absent

When beginning Stage 2 of RTL, each student will have an individualized Concussion Accommodation Plan. The concussion plan will be developed by the school counselor and student with input from the school nurse, teachers, and other school staff based on a student's symptoms and academic needs. Student's parents/guardians will also be invited to be participants in development of the Concussion Accommodation Plan. Additionally, recommendations from the student's medical providers will be considered. The Concussion Accommodation Plan will be reviewed regularly to assess student progress and the appropriateness of the current accommodations. A sample Concussion Accommodation Plan with possible accommodations are included in the appendix.

If a student's symptoms persist over an extended period of time and to a degree that learning or another major life function may be affected, then the student may be assessed to determine eligibility for a Section 504 Plan. Other possible interventions for symptoms persisting over an extended period of time may include possible class withdrawal, modification of class levels, and/or provision of incomplete grades at the conclusion of a semester.

D. Return to Learn - Life Fitness (RTL-PE)

The Life Fitness staff will supervise students in the RTL-PE protocol. The Life Fitness staff will work daily with the school nurse to ensure the student progresses safely through the RTL-PE protocol. The following criteria must be met before a non-athlete student diagnosed with a concussion is allowed to return to full Life Fitness participation:

- be symptom free for a minimum of 24 hours prior to beginning RTL-PE protocol
- obtain written clearance from a physician licensed to practice medicine in all its branches (MD/DO), an Advanced Practice Nurse (APN) or a Physician Assistant (PA). (must be signed and dated)
- Must work daily with both his/her Life Fitness instructor and a School Nurse to progress through the RTL-PE protocol stages indicated below

A School Nurse will be monitoring the non-student athlete stage progression with supervision provided by a Life Fitness Instructor. In some cases due to availability, there may be situations where there are days between stages (i.e. no cardiovascular room supervision available). The non-athlete student and a School Nurse will be completing the Concussion Symptom Checklist daily to monitor any returning symptoms and determine the appropriate stage of progression. In most cases, there should be approximately 24 hours (or longer) rest period between each stage. If any post-concussion symptoms occur while in the stepwise program, then the non-athlete student should drop back to the previous asymptomatic level and try to progress again after an additional 24-hour period of rest has passed. If the non-athlete student is not progressing or this is any indication of a more serious head injury, the School Nurse will notify the non-athlete student's parents/guardians. The non-athlete student may be required to see a concussion specialist prior to continuing any stage of Return to Learn Protocol.

Rehabilitation Stage	Examples of Functional Exercise at Each Stage of Rehabilitation	Success Goal of Each Stage					
1. No activity	Complete physical and mental rest	Recovery (symptom free at rest)					
2. Low-impact, light activity	Stationary cycling keeping intensity <70%maximum predicted HR (20 minutes)	Increase heart rate without symptoms					
3. Increased light activity	Cardiovascular activity (cycling, elliptical, running) while keeping intensity <70% maximum predicted HR (at least 20 minutes)	Increase duration of activity without symptoms					
4. Moderate activity, resistance training	No head-impact activity; may start progressive resistance training and plyometric exercises (at least 20 minutes)	Add coordination and cognition without symptoms. Increase exercise, coordination, and cognitive load without symptoms					
5. Return to Physical Education	Return to all sections of Physical Education with	Return to all sections of Physical Education without restrictions					

E. Return to Play (RTP)

The following criteria must be met before a student diagnosed with concussion is allowed to return to athletic participation:

- symptom free for a minimum of 24 hours
- ImPACT Post Injury test scores may be used as a tool in the evaluation of the student-athlete
- a written clearance to return to activity from a healthcare provider listed below (must be signed and dated) is provided to the school nurse/certified athletic trainer
 - Physicians licensed to practice medicine in all its branches (MD/DO)
 - o Advanced Practice Nurses (APN)
 - Physician Assistants (PA)
- a signed parental consent form
- completion of the gradual Return to Play protocol

Certified athletic trainers and administration reserve the right to exclude any student-athlete from participation in sport in any capacity based on student-athlete safety considerations.

The certified athletic trainer will supervise student athletes in the return to play protocol. In most cases, there should be approximately 24 hours (or longer) of rest between each stage. If any post-concussion symptoms occur while in the stepwise program, then the student should drop back to the previous asymptomatic level and try to progress again after an additional 24-hour period of rest has passed. If a student is not progressing or there is any indication of a more serious head injury, the certified athletic trainer will notify the school nurse and the student's parents/guardians. The student may be required to see a concussion specialist prior to continuing the Return to Play Protocol.

Rehabilitation Stage	Examples of Functional Exercise at Each Stage of Rehabilitation	Success Goal of Each Stage				
1. No activity	Complete physical and mental rest	Recovery (symptom free at rest)				
2. Low impact, light activity	Stationary cycling keeping intensity <70% maximum predicted heart rate (30 min. max)	Increase heart rate without symptoms				
3. Sport specific exercise	Running while keeping intensity <70% maximum predicted heart rate (30 min. max)	Add movement without symptoms				
4. Non-contact training drills	Sport-specific exercises/full practice without contact. No head- impact activities. May start progressive resistance training.	Add coordination and cognition without symptoms Increase exercise, coordination, and cognitive load without symptoms				
5. Unrestricted training	Full contact training drills and intense aerobic activity	Restore confidence and assess functional skills by coaching staff without symptoms				
6. Return to play	Normal game play without restrictions					

Adapted from Consensus Statement on Concussion in Sport—the 4th International Conference on Concussion in Sport Held in Zurich. Nov.2012.

District 127 Concussion Oversight Team

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References

- National Athletic Trainers' Association Position Statement: Management of Sport Concussion. Broglio, S. P., Cantu, R. C., Gioia, G. A., Guskiewicz, K. M., Kutcher, J., Palm, M., & Mcleod, T. C. 2014, Journal of Athletic Training, pp. 245-265.
- Consensus Statement on Concussion in Sport—the 4th International Conference on Concussion in Sport Held in Zurich, November 2012. Mccrory, P., Meeuwisse, W., Aubry, M., Cantu, B., Dvorak, J., Echemendia, R. J., . . . Sills, A. 2013, Clinical Journal of Sport Medicine, pp. 89-117.
- 3. "Illinois General Assembly Illinois Compiled Statutes." Illinois General Assembly Illinois Compiled Statutes. (105ILCS 5/22) Web. 04 Apr. 2016.
- 4. ImPACT Test. ImPACT Applications. [Online] March 20, 2016. www.impacttest.com/test.
- 5. What is a Concussion? CDC Heads Up Concussion. [Online] February 16, 2015.

What is a concussion?

6. Acute Concussion Evaluation (ACE) CDC [Online] February 25, 2019.

Acute Concussion Evaluation (ACE) CDC

GRAYSLAKE COMMUNITY HIGH SCHOOL – DISTRICT 127 Return to Learn CONCUSSION ACCOMMODATION PLAN

In the early stages of recovery after a concussion, increased cognitive demands, such as academic coursework, as well as physical demands may worsen symptoms and prolong recovery. Accordingly, a comprehensive concussion management plan will provide appropriate provisions for adjustment of academic coursework on a case-by-case basis.

Student's Name:		Date Implemented:					
Counselor's Name:							
Parent/Guardian Notificati	on Date:	Re-evalua	ation Date:				
*School personnel should	l watch for an increase or	change in any of the fo	ollowing signs and symptoms				
of concussion							
Physical	Cognitive	Emotional	Sleep				
Headache	Confusion	Irritability	Sleeping more than usual				
Dizziness	 Difficulty concentrating 	Sadness	 Sleeping less than usual 				
• Nausea	Difficulty thinking clearly	Mood swings	• Trouble falling or staying				
VomitingSensitivity to noise or	 Difficulty remembering new information 	 Feeling nervous or anxious 	asleep ● Feeling tired				
light	■ Taking longer to figure	Crying more	• reening thed				
Balance problems	things out						
Blurry vision	Amnesia						
 Any loss of consciousness 							
☐ Provide☐ Postpon☐ Use not☐ Elimina☐ Other:	EMODATIONS: extra time to complete alternative location the test completion	<u> </u>					
☐ Provide	extra time to complete						
	ne homework completion						
	from homework completion						
	written directions for homew	ork assignments					
☐ Assign ☐ Other:	only essential homework						
GENERAL ACCO	MMODATIONS:						
_		o writing assignments). St	udent will report to the library.				
	ind the Wheel for Driver's Ed						
	copy of class notes from teac						
☐ Allow s	tudent to see counselor, socia	l worker, or nurse as need	ed				
☐ Allow s	tudent to take breaks from cla	asswork					
	tudent to leave class early (ea						
Accomi	modate for sensory sensitivity	:					
☐ Specific	Course Limitations:						

☐ Other:			



HEADS UP ACUTE CONCUSSION EVALUATION (ACE) PHYSICIAN/CLINICIAN OFFICE VICTORIAL

Gerard Giola, PhD¹ & Micky Collins, PhD²
¹Children's National Medical Center
²University of Pittsburgh Medical Center

Patient Name:_		
DOB:	Age:	
Date:	ID/MR#	

A. Injur	y Characteristics D	ate/Tim	ne of	Injury			Reporter:PatientPare	nt	SpouseOther_	
. Injury	Description									-
Cause Cause Amne Loss EARL	ere evidence of intracranis tion of Impact:Frontal e:MVCPedestrian-l sia Before (Retrograde) A sia After (Anterograde) A of Consciousness: Did y	Lft T MVC _ Are there you/ per red or s	Fall e any son i	oralRt TemporalLft Pa AssaultSports (specif events just BEFORE the injury events just AFTER the injury the ose consciousness? edts confused about events	es rietal // that you/ at you/	NoRt	_Unknown ParietalOccipitalNeck	f)? _	_YesNo Dura _YesNo Dura _YesNo Dura	tion tion
. Sym	ptom Check List* Sin Indicate presence of ea				any of	these	symptoms any more than usual *Lovell &		or in the past day s, 1998 JHTR	?
	PHYSICAL (10)	1	_	COGNITIVE (4)			SLEEP (4)			1
	Headache	0	1	Feeling mentally foggy	0	1	Drowsiness	0	1	
	Nausea	0	1	Feeling slowed down	0	1	Sleeping less than usual	0		
	Vomiting	0	1	Difficulty concentrating	0	1	Sleeping more than usual	0		
	Balance problems	0	1	Difficulty remembering	0	1	Trouble falling asleep	0		
	Dizziness	0	1	COGNITIVE Total (0-4)	17		SLEEP Total (0-4	_		
	Visual problems	0	1	EMOTIONAL (4)					answering see	1
	Fatigue	0	1	Irritability	0	1	Exertion: Do these symptor	100		
	Sensitivity to light	0	1	Sadness	0	1	Physical ActivityYes Cognitive ActivityYes			
	Sensitivity to noise	0	1	More emotional	0	1				
	Numbness/Tingling	0	1	Nervousness	0	1	Overall Rating: How differer compared to his/her usual se	_		
	PHYSICAL Total (0-1	0)		EMOTIONAL Total (0-4)			Normal 0 1 2 3 4 5	-		
	(Add Phy	sical, (itive, Emotion, Sleep totals) Total Symptom Score (0-22)			Homai o i z o 4 o o rey ombon			
. Risi	Factors for Protract	ed Red	cove	ry (check all that apply)						
Concu	ssion History? Y N		14	Headache History? Y	N	1	Developmental History	P	sychiatric Histor	у
Previou	ıs#123456+		Г	Prior treatment for headache	2	Т	Learning disabilities	A	nxiety	
	t symptom duration WeeksMonthsYe	ars_		History of migraine headach Personal Family	ie		Attention-Deficit/ Hyperactivity Disorder	_	Depression Sleep disorder	
	ole concussions, less force reinjury? YesNo	е	1		=	Г	Other developmental disorder	Other psychiatric disorder		sorder
st othe	r comorbid medical disord	lers or r	medic	cation usage (e.g., hypothyroid	, seizi	res)_	-			
Headaci Seizure Focal ne	hes that worsen * Lo * Re eurologic signs * Six	oks ver peated urred sp sion w/	y dro vomit eech	wsy/ can't be awakened Can ling Mea	t recordance	onfu confu or nur		in I beha In sta	vioral change ite of consciousnes	s
_ No I	ow-Up Action Plan Follow-Up Needed sician/Clinician Office M strat: Neuropsychological Test Physician: Neurosurgery Emergency Department	lonitori ing			250 (200	py to				

Student's Name:	DOB:	Date of Injury:	LF CLASS:
Ottogett 5 Harrie.	DOD	Date of Injury.	LI OLNOO.

CONCUSSION SYMPTOM CHECKLIST

DATE		i i	70	i		- 1				-				-						
Do you have any of the following symptoms?	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No
Headache																l				l .
"Pressure in Head"			1 3	1							-								100	1
Neck Pain			- 9			1	- 3	1					1			1		1		
Nausea or Vomiting						1												1	9	1
Dizziness				1		1	- 3	1			_					1		1		
Blurred Vision							- 8											1	7	
Balance Problems							- 8								. 3					1
Sensitivity to Light			1 1								- 1							1	9	
Sensitivity to Noise		١				1	1		7											
Feeling Slowed Down																				
Feeling "In a Fog"		1 3		1														1	ė .	
Don't "Feel right"			1 3			1		1										1		
Difficulty Concentrating	S .1			1 8		1								1				1		1
Difficulty Remembering						1												1		1
Fatigue or Low Energy		3	- 1			1												1		
Confusion)			1	- 1	1								1		1		1
Drowsiness						1												1		1
More Emotional						1	- 8						3					1		1
Irritability				1 8		1												1		
Sadness				1		1		-								1				1
Nervous or Anxious																		1		1
Trouble Falling Asleep																		1		
Student Intials																		100		
Nurse Intials		- 39		- 3		- 8														
STAGE FOR THE DAY	Tin .																			
Asymptomatic Following?	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No
Student Intials			100																	
Nurse Intials		- 3		- 3				- 3									9			

Rehabilitation Stage	Examples of Functional Exercise at Each Stage of Rehabilitation	Success Goal of Each Stage				
1. No activity	Complete physical and mental rest	Recovery (symptom free at rest)				
2. Low-impact, light activity	Stationary cycling keeping intensity <70% maximum predicted HR (20 minutes max)	Increase heart rate without symptoms				
3. Increased light activity	Cardiovascular activity (cycling, eliptical, running) while keeping intensity <70 maximum predicted HR (30 minutes max)	Increase the duration of activity without symptoms				
Moderate activity, resistance training	No head-impact activity; may start progressive resistance training and plyometric exercises (at least 30 minutes)	Add coordination and cognition without symptoms. Increase exercise, coordination, and cognitive load without symptoms				
S. Return to Physical Education	Return to all sections of Physical Education without restrictions					

COMMENTS:

SCHOOL NURSE NAME & SIGNATURE:	COMPLETION DATE: