

USC Physical Therapy

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Objectives

- Identify services offered by USC PT-UPC to USC Club Sport teams and athletes
- Discuss concussion policy
- Identify pre-participation requirements for concussion pre-screening
- Discuss medical follow-up and clearance after concussion



Injury Clinic Hours

- Mondays and Thursdays, 5-7pm, Lyon Center-Massage Room
 - Free
 - Open to all Club Sport Athletes
 - Injury prevention
 - Hx of prior injury, prevent re-injury
 - Training form recommendations
 - Assess, screen, and triage injuries
 - Make recommendations regarding treatment



Team Consultation

- Available to come to practice
 - Injury prevention recommendations
 - Training recommendations
 - Must be pre-scheduled
 - Depending on nature of request, may require additional fee





CONCUSSION POLICY





- USC Recreational Sports Department is dedicated to the safety of our student-athletes.
- Concussion policy in place to manage concussion that occurs during Club Sports events (practices, workouts, games)

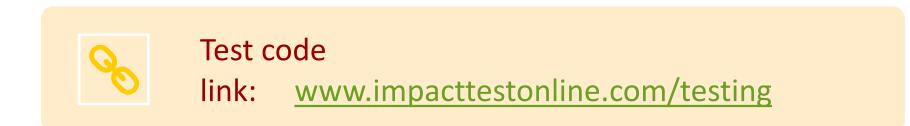


Pre-Participation Screening

- Pre-participation computerized cognitive testing utilizing the ImPact computerized system for the following teams:
 - Men's/women's soccer
 - Field hockey
 - Men's/women's ice hockey
 - Men's/women's lacrosse
 - Men's/women's rugby
 - Boxing
 - Martial arts teams: Tae Kwon Do, Brazilian Jiu Jitsu, Kendo, Shinkendo
 - Spirit Leaders
 - Cheer
 - Men's/women's basketball
 - Gymnastics
 - Wrestling
 - Men's/women's water polo
 - Men's/women's ultimate frisbee



Pre-Participation Screening



Customer ID Code: JJJ5TB437G







During Practice or Game

- If a student-athlete sustains a concussion, they should be removed from play and will not be allowed to return to play on the same day following injury
 - This is consistent with current recommendations on all sport levels from little league to professional
- Student-athlete should be evaluated by AT, PT, or EMT on-site (if available)
- If no medical coverage on-site (ie during practices or off-site events), refer to Student Health Center (during business hours) or to ER



Concussion signs and symptoms

- Headache
- Nausea
- Vomiting
- Dizziness
- Lightheadedness
- Sluggish
- Slurred speech
- Attention changes
- Memory changes

- Balance deficits
- Difficulty walking in a straight line
- Visual changes
- Personality changes
- May or may not involve loss of consciousness



Concussion Recovery

- Follow-up with Sports Resident during walk-in clinic at Lyon Center
- Symptom-limiting activity, relative rest for 2 days
 - If some activity (physical or cognitive) is causing increase in symptoms, that activity should be discontinued
 - <u>No athletic activity until able to return to class</u> without increased symptoms





Once symptoms have resolved ...

- Follow-up with Sports Resident during walk-in clinic at Lyon Center or during PT appointment at USC PT-UPC
- ImPact post-injury test
 - Evaluate neurocognitive status
 - Test results will be forwarded to Dr. Wenger or to Dr. Olsen, Student Health Center physicians with USC Club Sports
- Student-athlete must receive clearance from Student Health Center physician prior to returning to participation

Graded, Step-wise Return to Learn

International Symposia on Concussion In Sport, 6th International Conference

Table	Table 1 Return-to-learn (RTL) strategy				
Step	Mental activity	Activity at each step	Goal		
1	Daily activities that do not result in more than a mild exacerbation* of symptoms related to the current concussion	Typical activities during the day (eg, reading) while minimising screen time. Start with 5–15 min at a time and increase gradually.	Gradual return to typical activities		
2	School activities	Homework, reading or other cognitive activities outside of the classroom.	Increase tolerance to cognitive work		
3	Return to school part time	Gradual introduction of schoolwork. May need to start with a partial school day or with greater access to rest breaks during the day.	Increase academic activities		
4	Return to school full time	Gradually progress in school activities until a full day can be tolerated without more than mild* symptom exacerbation.	Return to full academic activities and catch up on missed work		
through *Mild a	h the strategy for students should be slowed when the and brief exacerbation of symptoms is defined as an in	ving an injury at Step 1), athletes can begin a gradual and incremental incre ere is more than a mild and brief symptom exacerbation. Icrease of no more than 2 points on a 0–10 point scale (with 0 representing with the baseline value reported prior to cognitive activity.			

Patricios JS, et al. Br J Sports Med 2023;57:695-711. doi:10.1136/bjsports-2023-106898

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Graded, Step-wise Return to Activity

International Symposia on Concussion In Sport, 6th International Conference

Step	Exercise strategy	Activity at each step	Goal
1	Symptom-limited activity	Daily activities that do not exacerbate symptoms (eg, walking).	Gradual reintroduction of work/school
2	Aerobic exercise	Stationary cycling or walking at slow to medium pace.	Increase heart rate
	2A—Light (up to approximately 55% maxHR) then 2B—Moderate (up to approximately 70% maxHR)	May start light resistance training that does not result in more than mild and brief exacerbation* of concussion symptoms.	
3	Individual sport-specific exercise Note: If sport-specific training involves any risk of inadvertent head impact, medical clearance should occur prior to Step 3	Sport-specific training away from the team environment (eg, running, change of direction and/or individual training drills away from the team environment). No activities at risk of head impact.	Add movement, change of direction
	hould begin after the resolution of any symptoms, abnormaliti- ysical exertion.	es in cognitive function and any other clinical findings relat	ted to the current concussion, including with
4	Non-contact training drills	Exercise to high intensity including more challenging training drills (eg, passing drills, multiplayer training) can integrate into a team environment.	Resume usual intensity of exercise, coordination and increased thinking
5	Full contact practice	Participate in normal training activities.	Restore confidence and assess functional skills by coaching staff

prior to physical activity). Athletes may begin Step 1 (ie, symptom-limited activity) within 24 hours of injury, with progression through each subsequent step typically taking a minimum of 24 hours. If more than mild exacerbation of symptoms (ie, more than 2 points on a 0–10 scale) occurs during Steps 1–3, the athlete should stop and attempt to exercise the next day. Athletes experiencing concussion-related symptoms during Steps 4–6 should return to Step 3 to establish full resolution of symptoms with exertion before engaging in at-risk activities. Written determination of readiness to RTS should be provided by an HCP before unrestricted RTS as directed by local laws and/or sporting regulations.

HCP, healthcare professional; maxHR, predicted maximal heart rate according to age (ie, 220-age).

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Questions?

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