Return to Play and Exercise Following mTBI or Concussion

The following are gradual steps that you, along with the guidance of a health care provider, can follow to safely return to play or exercise following a mild traumatic brain injury (mTBI) or concussion. These steps can be used whether you are an athlete returning to your sport or if you are returning to a regular fitness routine:

•	No activity Only for the first day or two Complete mental and physical rest Daily activities are okay if they do not cause symptoms Goal: recovery
•	Light aerobic exercise ☐ Includes walking, light jogging, and stationary bike ☐ 15-20 minutes at a time ☐ 30-40% maximum heartrate (HR) ☐ Goal: increase HR
•	 Moderate Levels of Exertion Includes jogging, short running intervals, moderate intensity on a stationary bike or elliptical, moderate intensity weight training 20-40 minutes at a time 40-60% max HR Goal: increase stamina and increase how much you are moving
•	 Sport Specific Exercise Lower intensity of sport-specific running as well as full load weight training 60-80% max HR No contact permitted on sport-specific drills Goal: add coordination, sport-specific drills that require more thinking and reaction time
•	 Non-contact training Drills Combine movement and strategy with sport-specific drills No contact permitted – attempting full-speed tasks in a controlled environment Goal: full-speed activities (examples: running and more complex sport-specific drills) Need to obtain medical clearance to progress to this level by law Participate in normal training activities Goal: increase confidence; training, coaching staff to assess functional skills
•	Full contact practice Need to obtain medical clearance to progress to this level by law Participate in normal training activities (limit heading balls in drills) 80-100% max HR Goal: increase confidence; training, coaching staff to assess functional skills
•	Full clearance Healthcare team will continue to monitor and reassess



Fact Sheet

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If symptoms come back or you experience new symptoms, stop those activities and return to a lower stage. Then contact your health care provider for guidance.

1	Additional Comments:		

References:

Bizzini M, Hancock D, Impellizzeri F. Suggestions From the Field for Return to Sports Participation Following Anterior Cruciate Ligament Reconstruction: Soccer. J Orthop Sports Phys Ther. 2012;42(4):304-312. doi:10.2519/jospt.2012.400

CDC Heads Up Facts for Physicians. Retrieved May 12, 2020, from www.cdc.gov/concussion/HeadsUp/youth.html

Gardner, K. (n.d.). Concussion and Traumatic Brain Injury. Retrieved May 12, 2020, from https://www.apta.org/TBI/

Giza CC, et al. Summary of evidence-based guideline update: evaluation and management of concussion in sports: report of the Guideline Development Subcommittee of the American Academy of Neurology. Neurology. 2013 Jun 11;80(24):2250-7. Website: http://www.neurology.org/content/80/24/2250.full.

"Managing Return to Activities." Centers for Disease Control and Prevention, Centers for Disease Control and Prevention, 2 Nov. 2018, www.cdc.gov/headsup/providers/return_to_activities.html.

McCrory, P., Meeuwisse, W., Dvorak, J., Aubry, M., Bailes, J., Broglio, S., et al. (2017). Consensus statement on concussion in sport—The 5th international conference on concussion in sport held in Berlin, October 2016. British Journal of Sports Medicine, 51(11), 838–847.

Physical Therapy Guide to Concussion. Retrieved May 12, 2020, from https://www.choosept.com/symptomsconditionsdetail/physical-therapy-guide-to-concussion

