

Post-Concussion Return to Physical Activity Exercise Protocol

Name: _____ Date of Concussion: _____ Sport/Job: _____

The following is a guideline for appropriate return to activity progression following concussion, based off of the Berlin Concussion Meeting and other current research documents. The healthcare provider monitoring this progression should note date of completion of each step, as appropriate.

Return to Activity Steps:

1. *Stage I: Completion of a Cognitive Activity / Return to Learn.* 48 hours of normal cognitive activities (school day, studying for tests, watching practice, interacting with peers) without re-emergence of any signs or symptoms, (-) King-Devick/Impact (use clinical discretion), and (-) VOMS. Completed _____
2. *Stage II: Light aerobic exercise* (which includes walking, swimming, or stationary cycling, with RPE and Heart Rate Monitoring) while keeping the intensity to less than 70% maximum percentage heart rate for no longer than 20 minutes total. No resistance training. The objective of this step is increased heart rate. Completed _____
 - a. Treadmill or Bike test (if available), OR...
 - b. Stationary Bike/Jog x 10 (or 20 min if no "a") working up to 70% max heart rate intensity
3. *Stage III: Sport-specific exercise* (including skating, and/or running). No head impact or high speed catching activities – ie. no impact risk). The objective of this step is to add movement and cognitive tasks and continue to increase heart rate and exercise intensity. Exercises include dynamic warm up, conditioning drills without resistance, agilities, plyometrics, and core training without resistance (all with cognitive tasks). Completed _____
 - a. Dynamic Warm Up (activation, mobilization, dynamic movement prep, and power prep)
 - b. Circle Cone Drill → Linear Cone Drill → Shuffle Cone Drill
 - c. Sprint: 20 yds x 5 (30" rest)
 - d. 6 Cone Drill sequence (5yd X 3 yd): Cuts: 45 deg, 90 deg shuffle, Shuffle/sprint Shuttle, 90 deg run, 135 "N", 180 deg turn sprint shuttle
 - e. Balance exercises (x 15" each leg, each exercises): Eyes Closed; Fwd light ball toss; Leg swings linear; Leg swings lateral; rotational light ball toss/catch; S/L RDL; Star UE reach
4. *Stage IV: Non-contact sports-specific training drills* (e.g. hand/eye coordination skills like catching, throwing, hitting, kicking, striking with an implement.) Initiate progressive resistance training. Completed _____
 - a. Dynamic Warm Up (activation, mobilization, dynamic movement prep, and power prep)
 - b. 20 minutes of sport-specific skill work, 90% intensity (controlled, non-contact)
 - c. Band-Resisted or Partner-Resisted Sprinting 20 yd or 5 seconds x 5 (30" rest between reps)
 - d. Resistance Circuit x 2
 - i. Med Ball Slams x 10 (or other power exercise)
 - ii. Push-ups x 10 (or other upper body resistance/strength)
 - iii. Loaded Squat or Lunge x 10 (or other lower body resistance/strength)
 - e. Controlled Burpee (VJump → Lower to eccentric push up → roll → inch worm → Repeat) x 5
5. *Stage V: Participation in normal practice/training activities* for one day as a "trial run." **ONLY following medical** clearance (consultation between licensed athletic trainer, school/team physician, school nurse, student-athlete's physician, and any other healthcare personnel involved in the recovery). The objective of this step is to restore confidence and to assess/ utilize all functional skills. Completed _____
 - a. Full practice
6. *Stage VI: Unrestricted Return to Activity* involving normal exertion or game activity. Completed _____