

PLACER UNITED

Protocols and Procedures for Management of Sports-Related Concussion



Medical management of sports-related concussion is evolving. In recent years, there has been a significant amount of research into sports-related concussion in high school athletes. This protocol outlines procedures for staff to follow in managing head injuries, and outlines policy as it pertains to return to play issues after concussion.

I. Recognition of concussion

A. Common signs and symptoms of sports-related concussion (these signs and symptoms are indicative of probable concussion, but other causes for symptoms should also be considered)

Signs (observed by others):

- Athlete appears dazed or stunned
- Confusion (about assignment, plays, etc.)
- Forgets plays
- Unsure about game, score, opponent
- Moves clumsily (altered coordination)
- Balance problems
- Personality change
- Responds slowly to questions
- Forgets events prior to hit
- Forgets events after the hit
- Loss of consciousness (any duration)

Symptoms (reported by athlete):

- Headache
- Fatigue
- Nausea or vomiting
- Double vision, blurry vision
- Sensitive to light or noise
- Feels sluggish
- Feels “foggy”
- Problems concentrating
- Problems remembering

B. Cognitive impairment (altered or diminished cognitive function)

1. General cognitive status can be determined by simple sideline cognitive testing administered by a coach or athletic trainer.
 - a. SCAT (Sports Concussion Assessment Tool)
 - b. Sideline ImPACT
2. The coach, parent or other designated representative should complete the PAR Concussion Recognition and Response Smartphone App. This information should be provided to the athlete's doctors and/or parent.



PLACER UNITED **Protocols and Procedures for Management of Sports-Related Concussion**

II. Management and referral guidelines for all staff

A. Suggested Guidelines for Management of Sports-Related Concussion

1. Any athlete who has symptoms of a concussion, and who is not stable (i.e., condition is changing or deteriorating), is to be transported immediately to the nearest emergency department via emergency vehicle.
2. An athlete who exhibits any of the following symptoms should be transported immediately to the nearest emergency department, via emergency vehicle.
 - a. deterioration of neurological function
 - b. decreasing level of consciousness
 - c. decrease or irregularity in respirations
 - d. decrease or irregularity in pulse
 - e. unequal, dilated, or unreactive pupils
 - f. any signs or symptoms of associated injuries, spine or skull fracture, or bleeding
 - g. mental status changes: lethargy, difficulty maintaining arousal, confusion or agitation
 - h. seizure activity
 - i. cranial nerve deficits
3. An athlete who is symptomatic but stable, may be transported by his or her parents. The parents should be advised to contact the athlete's primary care physician, or seek care at the nearest emergency department, on the day of the injury. ALWAYS give parents the option of emergency transportation, even if you do not feel it is necessary.

III. Procedures for the Placer United Staff:

A. Immediate referral to the athlete's primary care physician or to the hospital will be made when medically appropriate (see section II).

1. Staff will perform assessment utilizing the PAR Concussion Recognition and Response App.
2. Staff will notify the athlete's parents.
3. Staff will notify Club Administrator of injured player's name, team, date and time of injury.

VI. Guidelines and procedures for coaches:

RECOGNIZE, REMOVE, REFER

A. **Recognize** concussion

1. All coaches should become familiar with the signs and symptoms of concussion that are described in section I.
2. Very basic cognitive testing should be performed to determine cognitive deficits.

B. **Remove** from activity

1. If a coach suspects the athlete has sustained a concussion, the athlete must be removed from activity until evaluated medically.
 - a. **Any athlete who exhibits signs or symptoms of a concussion should be removed immediately, assessed, and should not be allowed to return to activity that day.**

C. **Refer** the athlete for medical evaluation

1. Coaches should report all head injuries to the Club Administrator
2. The coach is responsible for notifying the athlete's parents of the injury.
 - a. Follow procedures outlined in Section III above.
 - b. Contact the parents to inform them of the injury.

PLACER UNITED

Protocols and Procedures for Management of Sports-Related Concussion



VI. Guidelines and procedures for coaches: **RECOGNIZE, REMOVE, REFER** (continued)

3. In the event that an athlete's parents cannot be reached, and the athlete is able to be sent home (rather than directly to MD):
 - a. The Coach should ensure that the athlete will be with a responsible individual, who is capable of monitoring the athlete before allowing the athlete to go home.
 - b. The Coach should continue efforts to reach the parent.
 - c. If there is any question about the status of the athlete, or if the athlete is not able to be monitored appropriately, the athlete should be referred to the emergency department for evaluation. The coach, manager or other designated personnel should accompany the athlete and remain with the athlete until the parents arrive.
 - d. Athletes with suspected head injuries should not be permitted to drive home.

VIII. Return to play (RTP) procedures after concussion

A. Returning to participate on the same day of injury

1. It is Placer United's policy that no athlete suspected of sustaining a concussion return to play the same day and that the athlete must not return to play until they have written clearance from a healthcare provider who is experienced with concussion management.
2. "When in doubt, hold them out."

B. Return to play after concussion

1. The athlete must meet all of the following criteria in order to progress to activity:
 - a. Asymptomatic at rest and with exertion (including mental exertion in school) AND:
 - b. Within normal range of baseline on post-concussion ImPACT(if applicable) testing AND:
 - c. Have written clearance from primary care physician or specialist (athlete must be cleared for progression to activity by a doctor other than an Emergency Room physician).
2. Once the above criteria are met, the athlete will be progressed back to full activity following a stepwise process.



VIII. Return to play (RTP) procedures after concussion (continued)

3. Progression is individualized, and will be determined on a case by case basis. Factors that may affect the rate of progression include: previous history of concussion, duration and type of symptoms, age of the athlete, and sport/activity in which the athlete participates. An athlete with a prior history of concussion, one who has had an extended duration of symptoms, or one who is participating in a collision or contact sport should be progressed more slowly. After a third concussion in a single season, it is recommended that the athlete be removed from play for the remainder of the season.
4. Stepwise progression:
 - a. No activity: complete physical and cognitive rest.
 - b. Light aerobic exercise: walking, swimming, or stationary cycling keeping intensity less than 70% of the maximum predicted heart rate. No resistance training.
 - c. Sport-specific exercise: Skating drill in ice hockey, running drills in soccer. No head impact activities.
 - d. Non-contact training drills: Progression to more complex training drills (passing drills in football and ice hockey)
 - e. Full contact practice: Following medical clearance participate in normal training activities.
 - f. Return to play: Normal game play

Note: If the athlete experiences post-concussion symptoms during any phase, the athlete should drop back to the previous asymptomatic level and resume the progression after 24 hours.

Note: It is strongly recommended that players who have not received clearance to return to sport not be allowed at practices and games as a spectator. Bright light, noise and the stress of competition can stimulate the brain and slow recovery.

5. The athlete should see their coach after any doctor's visit that results in a new Care Plan until he or she has progressed to unrestricted activity, and been given a written report to that effect. At that point, follow-up neuropsychological testing using ImPACT (if applicable) can be administered.
6. Once the athlete is symptom free at rest and with full exertion and ImPACT testing (if applicable) is at baseline levels, the athlete will need written clearance from his/her doctor to return to play. This documentation must be provided to Club Administrator.