

SCOR Concussion Recognition & Management Protocol

This document was developed to provide all SCOR coaches with a review of current and relevant information regarding the recognition of concussions and management requirements.

A concussion is a type of traumatic brain injury or (TBI), "that changes how the cells in the brain normally work. A concussion is caused by a blow to the head or body that causes the brain to move rapidly inside the skull. Even a 'ding', 'getting your bell rung', or what seems to be a mild bump or blow to the head can be serious. Concussions can also result from a fall or from players colliding with each other or with obstacles, such as a goalpost (Centers for Disease Control and Prevention, 2009).

Part I - SIGNS AND SYMPTOMS OF A CONCUSSION

A concussion should be suspected if anyone or more of the following signs or symptoms are present, OR if the coach/evaluator is unsure. "When in Doubt, Sit Them Out!"

1. Signs of a concussion may include (what the athlete looks like):

- Confusion/disorientation/irritability
- Trouble resting/getting comfortable
- Lack of concentration
- Slow response/drowsiness
- Incoherent/ slurred speech
- Slow/clumsy movements
- Loss of consciousness
- Amnesia/memory problems
- Act silly/combative/aggressive
- Repeatedly ask same questions
- Dazed appearance
- Restless/irritable
- Constant attempts to return to play
- Constant motion
- Disproportionate/inappropriate reactions
- Balance problems

2. Symptoms of a concussion may include (what the athlete reports):

- Headache or dizziness
- Nausea or vomiting
- Blurred or double vision
- Oversensitivity to sound/light/touch
- Ringing in ears
- Feeling foggy or groggy

3. Second Impact Syndrome - Athletes who sustain a concussion, and return to play prior to being recovered from the concussion, are also at risk for Second Impact Syndrome (SIS), a rare but life-altering condition that can result in rapid brain swelling, permanent brain damage or death.

4. Post Concussion Syndrome - A group of physical, cognitive, and emotional problems that can persist for weeks, months, or indefinitely after a concussion.

Part II - RETURN TO PARTICIPATION (RTP)

It is impossible to accurately predict how long concussions will last. There must be full recovery before someone is allowed to return to participation. SCOR now requires that no athlete may resume participation until they have received written medical clearance from a licensed health care professional (Physician, Physician Assistant, Advanced Practice Registered Nurse, Athletic Trainer) trained in the evaluation and management of concussions. The health care professional might direct them into a well defined RTP stepped protocol similar to one outlined below. If at any time signs or symptoms should return during the RTP progression the athlete should cease activity. After the RTP protocol has been successfully administered (no longer exhibits any signs or symptoms or behaviors consistent with concussions), final written medical clearance is required by one of the licensed health care professionals mentioned above for them to fully return to unrestricted participation in practices and competitions.

Medical Clearance RTP protocol (Recommended one full day between steps)

Rehabilitation stage	Functional exercise at each stage of rehabilitation	Objective of each stage
1. No activity	Complete physical and cognitive rest until asymptomatic. School may need to be modified.	Recovery
2. Light aerobic activity	Walking, swimming or stationary cycling keeping intensity <70% of maximal exertion; no resistance training	Increase Heart Rate
3. Sport Specific Exercise	Skating drills in ice hockey, running drills in soccer; no head impact activities	Add Movement
4. Non-contact Training drills	Progression to more complex training drills, i.e. passing drills in football and ice hockey; may start progressive resistance training	Exercise, coordination and cognitive load
5. Full Contact Practice	Following medical clearance, participate in normal training activities	Restore confidence and assess functional skills by coaching staff

If at any time signs or symptoms should return during the RTP progression the athlete should stop activity that day. If the athlete's symptoms are gone the next day, s/he may resume the RTP progression at the last step completed in which no symptoms were present. If symptoms return and don't resolve, the athlete should be referred back to their medical provider.

Concussion Management Requirements:

1. SCOR requires that a coach **MUST** immediately remove a student-athlete from participating in any practice, scrimmage or game who (A) is observed to exhibit signs, symptoms or behaviors consistent with a concussion following a suspected blow to the head or body, or (B) is diagnosed with a concussion, regardless of when such concussion or head injury may have occurred.

2. No athlete SHALL return to participation (RTP) within 7 days of concussion.
3. Any loss of consciousness, vomiting or seizures the athlete MUST be immediately transported to the hospital. Parents or guardians may not interfere with this decision.
4. Any athlete with signs or symptoms related to a concussion MUST be evaluated from a licensed health care professional (Physician, Physicians Assistant, Advanced Practice Registered Nurse, Athletic Trainer) trained in the evaluation and management of concussions.
5. The athlete MUST obtain written clearance from one of the licensed health care professionals mentioned above before resuming participation.