

## **The NOJHL Sport Concussion Policy and Management Protocol**

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The NOJHL concussion policy and concussion management protocol have been developed and derived from the most recent and up to date literature on sport-related concussion.

The NOJHL will use the following approach when determining an athlete's readiness to return to play following a concussion. If it is suspected that an athlete has sustained a concussion, the concussion management protocol requires the evaluation of the athlete's symptoms, neurocognitive function, and balance which will provide the necessary information to return the athlete to play safely. The findings of these post-injury assessments should then be combined and compared to pre-season baseline testing assessments. Pre-season baseline assessments are to be conducted through the ImPACT Concussion Management system. ImPACT is a computer based program that helps to objectively evaluate an athlete's cognitive status. ImPACT can also be used as a post-injury assessment tool by evaluating the athlete until they are symptom free and back to baseline.

The following concussion policy and management protocol has been adopted by the NOJHL and is to be followed by all teams for managing athletes suspected of sustaining a concussion.

### **NOJHL Concussion Management Protocol**

A concussion occurs when there is a direct or indirect trauma to the brain. As a result, momentary impairment of mental functions such as memory, balance/equilibrium, and vision may occur. It is important to recognize that many sport-related concussions do not result in the loss of consciousness and therefore, all suspected head injuries should be taken seriously.

1. Concussion management begins with pre-season baseline testing. Every athlete must receive a pre-season baseline assessment for concussion involving the computerized ImPACT test. ImPACT testing will be conducted by the athletic therapy staff as part of every athletes pre-preparation physical exam. Baseline testing must be completed during training camp, and an athlete must complete their baseline test in order to be cleared to play in contact sport at the NOJHL level. In the event of a suspected concussion, the athlete will be re-assessed and compared to pre-season baseline measures according to the outlined protocol below. The NOJHL's Concussion Management Administrator will keep a copy of baseline ImPACT scores on file so they can have easy access to them at all times.

2. If an athlete is suspected of having a concussion,
  - They are immediately removed from play, regardless if the concussion occurs on or off the ice and they are not permitted to return to play that day.
  - If there are doubts, assume that a concussion has occurred.
  - The athlete is to be referred to a physician for diagnosis as soon as possible.
  - Once an athlete, who is experiencing “concussion like symptoms” is diagnosed, they are not permitted to return to play or practice/training until all of the return to play requirements are met. (Table 1)
  - Written clearance from a physician is required prior to returning to play.

NOTE: Second impact syndrome, although rare, can occur in players who return to activity with ongoing symptoms. Monitoring of return to play is essential. Always err on the side of caution.

3. The athlete suspected of having sustained a concussion will be evaluated by the team’s athletic therapy staff using a signs and symptoms evaluation, a symptom checklist, and balance testing. Once the first aid issues are addressed, an assessment of the concussive injury should be made using the Hockey Canada Concussion Card or the SCAT5 (Sport Concussion Assessment Tool 5). The athlete should then complete the ImPact test, and upon completion the Concussion Management Administrator will review the test and provide the results to the athlete’s team therapy staff.

NOTE: If the athlete experiences loss of consciousness assume a neck injury and call Emergency Services. If there is a significant loss of awareness and/or orientation, direct the athlete to an emergency room at the nearest hospital.

4. The athlete should not be left alone following the injury, and ideally, an assessment will be performed at the time of the injury and then serially thereafter (ie. 24 hours post injury, 48 hours, etc.)
5. Any athlete diagnosed with or suspected of having a concussion shall not return to activity for the remainder of that day. Medical clearance will be determined by the team therapist or physician or combination of team therapists and physician involved with management of the concussion.
6. After a period of initial rest and once symptom free, symptom-limited activity can be begun while staying below a cognitive and physical exacerbation threshold. Once asymptomatic for 1 day, the student-athlete can begin stage 2 of the return to play protocol, as outlined in Table 1. With this stepwise progression, the athlete should continue to proceed to the next level if asymptomatic at the current level. Generally each step should take 24 hours,

so that an athlete would take approximately 1 week to proceed through the full rehabilitation protocol once asymptomatic at rest and with provocative exercise. If any post-concussion symptoms occur while in the stepwise program, then the athlete should drop back to the previous asymptomatic level and try to progress again after a further 24-hour period of rest has passed.

7. In order for the athlete to be cleared to return to full contact game play, a medical clearance note must be obtained from a medical doctor. The athlete must also re-take the ImPact test, and upon complete the Concussion Management Administrator will notify the athlete's team therapy staff of the results.

### **Table 1. 6-Step Return to Play**

The return to play strategy is gradual, and begins after the athlete's team therapy staff has given the player clearance to return to activity. No return to play if any symptoms or signs persist. Remember, symptoms may return later that day or the next, not necessarily when exercising!

**IMPORTANT – CONSULT WITH THE TREATING PHYSICIAN ON RETURN TO LEARN PROTOCOLS. IMPORTANT – FOLLOWING A CONCUSSION AND PRIOR TO STEP 1 A BRIEF PERIOD OF PHYSICAL AND MENTAL REST IS RECOMMENDED.**

**STEP 1** Light activities of daily living which do not aggravate symptoms or make symptoms worse. Once tolerating step 1 without symptoms and signs, proceed to step 2 as directed by your physician.

**STEP 2** Light aerobic exercise, such as walking or stationary cycling. Monitor for symptoms and signs. No resistance training or weight lifting.

**STEP 3** Sport specific activities and training (e.g. skating).

**STEP 4** Drills without body contact. May add light resistance training and progress to heavier weights. The time needed to progress from non-contact to contact exercise will vary with the severity of the concussion and the player. Go to step 5 after medical clearance (reassessment and written note).

**STEP 5** Begin drills with body contact.

**STEP 6** Game play. (The earliest a concussed athlete should return to play is one week.)

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\*If at any point during this process the athlete becomes symptomatic the athlete will be required to be asymptomatic for 1 additional day before they can resume the return to play protocol again.

No athlete can return to full activity or participation in practice or competitions until they are asymptomatic and cleared by the team medical staff.

## References

1. ThinkFirst-SportSmart Concussion Education and Awareness Program. New Concussion Management Guidelines: Concussion Question and Answer Document for Physicians. Dr. Jamie Kissick. June 2005. CASM.
2. Summary and Agreement of the 1<sup>st</sup> International Symposium on Concussion in Sport., Vienna 2001. *Clinical Journal of Sport Medicine*; 12: 6-11.
3. Summary and Agreement Statement of the 2<sup>nd</sup> International Conference on Concussion in Sport, Prague 2004. *Clinical Journal of Sport Medicine* 2005; 15(2): 48-55.
4. Consensus Statement on Concussion in Sport: The 3<sup>rd</sup> International Conference on Concussion in Sport, Zurich 2008. *Journal of Athletic Training* 2009; 44(4):434-448.
5. Consensus statement on concussion in sport: the 4th International Conference on Concussion in Sport held in Zurich, November 2012. *Br J Sports Med* 2013;**47**:250-258  
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6. Hockey Canada Concussion Policy 2017.