



## **Grand Traverse Hockey Association Concussion Protocol**

The Grand Traverse Hockey Association (GTHA) is committed to maintaining a safe environment for all players, coaches, and referees. One of the things GTHA emphasizes is concussion awareness. Concussions are difficult to spot and signs/symptoms change by the hour and from day-to-day. The goal of the concussion safety program is that no child skates while concussed and that parents, coaches, and staff are armed with as much information as possible. We follow and supplement the USA Hockey Concussion Management Plan. Here are the basics:

### **Baseline King-Devick Test**

Each player **10U and above** will be required to undergo a pre-season baseline test known as the King-Devick Test. King-Devick is a timed reading of flip cards, which takes about 5 minutes at the rink and is administered by team volunteers called Injury Liaisons (IL's).

**8U and below:** Coaches **shall** follow the USA Hockey Concussion Management Program

### **Injury Liaisons or "ILs"**

Every team has at least one designated Injury Liaison (IL) or safety person, who is a volunteer. The IL's job is to assist coaches with player safety throughout the season.

### **Remove From Play/Practice**

The IL will watch for potential injuries during games and be available on the bench if coach suspects an injury. The IL will administer the King-Devick Test within 24 hours or prior to the next team event (dryland/practice/game) and compare the results against the player's baseline time as well as run through a standard checklist of concussion signs/symptoms with the player. If a player shows delay/errors of the King-Devick baseline and/or shows signs/symptoms of concussion, **the Coach has a responsibility to remove that player from Play and Practice until the player is cleared by their medical professional to return to on-ice activity.**

The injured player's parent/guardian is required to fill out the attached "USA Hockey Return to Play" form and submit it to the team IL. The IL will submit this form to the GTHA Executive Vice President ([vicepresident@tchockey.com](mailto:vicepresident@tchockey.com)). A signed Doctor's Note can be attached to the "USA Hockey Return to Play" form.

**IL's do not diagnose concussions** -- they only provide the King-Devick results and observed symptoms to the Head Coach for a Concussion Protocol determination. The guiding principle is: **"WHEN IN DOUBT, SIT THEM OUT."** ILs should also assist players with non-head injuries.

### **Return to Play**

If a player has been pulled from play, it is the responsibility of the parent/guardian to take that player for full medical evaluation by a medical professional experienced in concussions before returning to play. **For any player who has been diagnosed with a concussion, written medical clearance along with the "USA Hockey Return to Play" form is required for that player to return to practices or games.** All other injured players return at the discretion of their parents. Bringing your child to a practice or game means that you think they are 100% ready for full contact play. Coaches **shall** remove players from play if there is any concern that a player is injured.

## GENERAL GUIDELINES

Accepted current medical practice and the law in most states requires that any athlete with a *suspected* Sports Related Concussion (SRC) is *immediately removed from play*.

- A concussion is a traumatic brain injury- ***there is no such thing as a minor brain injury.***
- A player does not have to be “knocked-out” to have a concussion- ***less than 10% of players lose consciousness.***
- A concussion can result from a blow to head, neck, ***or body.***
- Concussions often occur to players who don’t have or just released the puck, from open-ice hits, unanticipated hits, and illegal collisions.
- The **youth** hockey player’s brain is ***more susceptible*** to concussion.
- Concussion in a young athlete may be *harder* to diagnosis, takes *longer* to recover, and is *more likely* to have a recurrence, which can be associated with serious long-term effects.
- The strongest predictor of slower recovery from a concussion is the severity of **initial symptoms in the first day or 2** after the injury.
- Treatment is individualized and it is impossible to predict when the athlete will be allowed to return to play- ***there is no standard timetable.***
- A player with ***any symptoms/signs*** or a ***worrisome mechanism of injury*** has a concussion until proven otherwise:

### “When in doubt, sit them out.”

Follow these concussion management steps:

1. Remove immediately from play (training, practice, or game)
2. Inform the player’s coach and parents/guardians.
3. Refer the athlete to a qualified health-care professional (as defined in state statute)
4. Initial treatment requires a short period of rest, but the athlete may participate in light exercise (if their symptoms are not made worse).
5. Begin a graded return-to-sport and return-to-learn.
6. Provide written medical clearance for return to play (the *USA Hockey Return to Play Form* is required)

### What should the Coach and Injury Liaison (IL) look for?

Players, coaches, officials, parents, and health care providers should be able to recognize the symptoms/signs of a sport related concussion. (See attached ***Concussion Recognition Tool 6***)

#### **Symptoms:**

- Headache
- “Pressure in head”
- Neck Pain
- Nausea or vomiting
- Balance problems
- Dizziness

- Drowsiness
- Blurred vision
- Difficulty concentrating/remembering
- “Don’t feel right”
- Sensitivity to light/noise
- More emotional or irritable
- Fatigue or low energy
- Feeling like “in a fog”
- Feeling slowed down
- Confusion
- Sadness
- Nervous or anxious

#### Observable Signs:

- Lying motionless on the playing surface
- Slow to get up after a direct or indirect hit to the head
- Disorientation or confusion
- Inability or slow to respond appropriately to questions
- Blank or vacant look
- Slow movement or incoordination
- Balance or walking difficulty
- Facial injury after head trauma

#### Management Protocol

1. If the player is **unresponsive**- call for help & dial 911
2. If the athlete is **not breathing**: start CPR
3. Assume a neck injury *until proven otherwise*

DO NOT move the athlete.

DO NOT rush the evaluation.

DO NOT have the athlete sit up or skate off until you have determined:

- no neck pains
- no pain, numbness, or tingling
- no midline neck tenderness
- normal muscle strength
- normal sensation to light touch

4. If the athlete is conscious & responsive without symptoms or signs of a neck injury...

- help the player off the ice to the locker room.
- perform an evaluation.
- do not leave them alone.

5. Evaluate the player in the locker room: **Concussion Recognition Tool 6** or other sideline assessment tools

- Ask about concussion **symptoms**.
- Observe for concussion **signs**.
- **Memory Assessment**

→ What venue are we at today?

→ What period is it?

→ Who scored last in this game?

→ Did your team win the last game?

→ Who was your opponent in the last game?

→ If a healthcare provider is not available, the player should be safely removed from practice or play and referral to a physician arranged.

6. A player with any symptoms or signs, disorientation, impaired memory, concentration, balance, or recall has a concussion and should not be allowed to return to play on the day of injury.

7. The player should not be left alone after the injury, and serial monitoring for deterioration is essential over the initial few hours after injury.

If any of the signs or symptoms listed below develop or worsen go to the **hospital emergency department** or dial **911**.

- Severe throbbing headache
- Dizziness or loss of coordination
- Ringing in the ears (tinnitus)
- Blurred or double vision
- Unequal pupil size
- No pupil reaction to light
- Nausea and/or vomiting
- Slurred speech
- Convulsions or tremors
- Sleepiness or grogginess
- Clear fluid running from the nose and/or ears
- Numbness or paralysis (partial or complete)

8. Concussion symptoms & signs *evolve over time*- the severity of the injury and estimated time to return to play are unpredictable.

9. A qualified health care provider guides the athlete through **Return-to-Learn** and **Return-to-Sport** strategies.

10. Written clearance from a qualified health care provider is required for an athlete to return to play without restriction (training, practice, and competition). Only the **USA Hockey Return to Play Form** is acceptable.

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## Concussion Recognition Tool

To Help Identify Concussion in Children, Adolescents and Adults

### What is the Concussion Recognition Tool?

A concussion is a brain injury. The Concussion Recognition Tool 6 (CRT6) is to be used by non-medically trained individuals for the identification and immediate management of suspected concussion. It is not designed to diagnose concussion.

### Recognise and Remove

#### Red Flags: CALL AN AMBULANCE

If **ANY** of the following signs are observed or complaints are reported after an impact to the head or body the athlete should be immediately removed from play/game/activity and transported for urgent medical care by a healthcare professional (HCP):

- Neck pain or tenderness
- Seizure, 'fits', or convulsion
- Loss of vision or double vision
- Loss of consciousness
- Increased confusion or deteriorating conscious state (becoming less responsive, drowsy)
- Weakness or numbness/tingling in more than one arm or leg
- Repeated Vomiting
- Severe or increasing headache
- Increasingly restless, agitated or combative
- Visible deformity of the skull

### Remember

- In all cases, the basic principles of first aid should be followed: assess danger at the scene, check airway, breathing, circulation; look for reduced awareness of surroundings or slowness or difficulty answering questions.
- Do not attempt to move the athlete (other than required for airway support) unless trained to do so.
- Do not remove helmet (if present) or other equipment.
- Assume a possible spinal cord injury in all cases of head injury.
- Athletes with known physical or developmental disabilities should have a lower threshold for removal from play.

#### If there are no Red Flags, identification of possible concussion should proceed as follows:

Concussion should be suspected after an impact to the head or body when the athlete seems different than usual. Such changes include the presence of **any one or more** of the following: visible clues of concussion, signs and symptoms (such as headache or unsteadiness), impaired brain function (e.g. confusion), or unusual behaviour.

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## Concussion Recognition Tool

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### 1: Visible Clues of Suspected Concussion

Visible clues that suggest concussion include:

- Loss of consciousness or responsiveness
- Lying motionless on the playing surface
- Falling unprotected to the playing surface
- Disorientation or confusion, staring or limited responsiveness, or an inability to respond appropriately to questions
- Dazed, blank, or vacant look
- Seizure, fits, or convulsions
- Slow to get up after a direct or indirect hit to the head
- Unsteady on feet / balance problems or falling over / poor coordination / wobbly
- Facial injury

### 2: Symptoms of Suspected Concussion

Physical Symptoms	Changes in Emotions
Headache	More emotional
"Pressure in head"	More Irritable
Balance problems	Sadness
Nausea or vomiting	Nervous or anxious
Drowsiness	
Dizziness	
Blurred vision	
More sensitive to light	
More sensitive to noise	
Fatigue or low energy	
"Don't feel right"	
Neck Pain	

#### Changes in Thinking

- Difficulty concentrating
- Difficulty remembering
- Feeling slowed down
- Feeling like "in a fog"

**Remember**, symptoms may develop over minutes or hours following a head injury.

### 3: Awareness

(Modify each question appropriately for each sport and age of athlete)

Failure to answer any of these questions correctly may suggest a concussion:

"Where are we today?"

"What event were you doing?"

"Who scored last in this game?"

"What team did you play last week/game?"

"Did your team win the last game?"

**Any athlete with a suspected concussion should be - IMMEDIATELY REMOVED FROM PRACTICE OR PLAY and should NOT RETURN TO ANY ACTIVITY WITH RISK OF HEAD CONTACT, FALL OR COLLISION, including SPORT ACTIVITY until ASSESSED MEDICALLY, even if the symptoms resolve.**

Athletes with suspected concussion should **NOT**:

- Be left alone initially (at least for the first 3 hours). Worsening of symptoms should lead to immediate medical attention.
- Be sent home by themselves. They need to be with a responsible adult.
- Drink alcohol, use recreational drugs or drugs not prescribed by their HCP
- Drive a motor vehicle until cleared to do so by a healthcare professional

### What is the King-Devick Test?

The King-Devick Test is a two-minute rapid number naming assessment in which an individual quickly reads aloud single digit numbers and evaluates impairments of eye movements, attention and language function.

### Eye Movements and Concussion Testing

Peer-reviewed research has shown that adding a vision-based performance measure to cognitive and balance testing enhances the detection capabilities of current sideline concussion assessment ([Journal of Neuro-Ophthalmology, Adding Vision to Concussion Testing: A Prospective Study of Sideline Testing in Youth and Collegiate Athletes 2015](#)).<sup>\*</sup> The K-D Test is a recommended component of the Mayo Clinic Sideline Concussion Protocol.

### High Sensitivity & Specificity

A recent meta-analysis found King-Devick Test to be both sensitive (86%) and specific (90%) for the detection of concussion. Any worsening of King-Devick Test from baseline indicated a five-times greater likelihood of concussion ([Concussion, The King-Devick test of rapid number naming for concussion detection: meta-analysis and systematic review of the literature, 2016](#)).<sup>\*</sup>

For more information regarding King-Devick Testing please visit:

<https://kingdevicktest.com>



## USA HOCKEY CONCUSSION MANAGEMENT

### RETURN TO PLAY FORM

The USA Hockey Concussion Management Protocol and most state statutes require that an athlete be removed from any training, practice or game if they exhibit any signs, symptoms or behaviors consistent with a concussion or are suspected of sustaining a concussion. The player should not return to physical activity until he or she has been evaluated by a qualified medical provider who has provided written clearance to return to sports. **This form is to be used after an athlete has been removed from athletic activity due to a suspected concussion and must be signed by their medical provider in order to return without restriction to training, practice or competition.**

Player Name: \_\_\_\_\_ Date of Birth: \_\_\_\_/\_\_\_\_/\_\_\_\_

Organization: \_\_\_\_\_ Person Reporting: \_\_\_\_\_

Location of the injury (Arena): \_\_\_\_\_

Injury Signs/Symptoms: \_\_\_\_\_

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Print Healthcare Provider Name: \_\_\_\_\_ License No. \_\_\_\_\_

Address: \_\_\_\_\_ Phone Number: \_\_\_\_\_

**I HEREBY AUTHORIZE THE ABOVE-NAMED ATHLETE TO RETURN TO ATHLETIC ACTIVITY FOR FULL PARTICIPATION WITHOUT RESTRICTION.**

Signature: \_\_\_\_\_ Date: \_\_\_\_/\_\_\_\_/\_\_\_\_

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**I AM THE PARENT OR LEGAL GUARDIAN OF THE PLAYER IDENTIFIED ON THIS FORM AND I CONSENT TO THEIR RETURN TO ATHLETIC ACTIVITY WITHOUT RESTRICTION.**

Print Name of Parent/Legal Guardian: \_\_\_\_\_

Signature: \_\_\_\_\_ Date: \_\_\_\_/\_\_\_\_/\_\_\_\_

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**I AM THE COACH OF THE PLAYER IDENTIFIED AND I CONFIRM RECEIPT OF THIS CLEARANCE FORM ACKNOWLEDGING THE HEALTH CARE PROVIDER AND PARENT HAVE APPROVED THE ATHLETE'S RETURN TO PARTICIPATION WITHOUT RESTRICTION.**

Print Name of Head Coach: \_\_\_\_\_

Signature: \_\_\_\_\_ Date: \_\_\_\_/\_\_\_\_/\_\_\_\_