1. AWARENESS RESOURCES, CODE OF CONDUCT AND TRAINING

- Awareness: Concussion awareness resources are available on the Ontario Government Website
 for all parents, players, officials, managers and other team or club members. Any participating
 member must review the GTHL concussion policy and concussion awareness resources prior to
 start of the hockey season.
- **Concussion Code of Conduct:** Players and parents to sign the OHF Concussion Code of Conduct on rules and behaviour to support concussion prevention
- Education: Mandatory education sessions are provided to all coaches and trainers in order to participate in the Greater Toronto Hockey League (GTHL) by the Concussion Centre at Holland Bloorview Kids Rehabilitation Hospital. Education was provided on remove-from-sport and return-to-sport protocols and requirements of medical clearance prior to return to contact practice and game play. Education was also provided on the implementation of this concussion policy and protocol across the GTHL.

2. RECOGNIZING A SUSPECTED CONCUSSION

- a) What is a concussion? Concussion is a form of a traumatic brain injury induced by biomechanical forces that results in signs and symptoms after a blow to the head or the body that typically resolve within 1-4 weeks of injury. A concussion can result in non-specific physical, cognitive, sleep and emotional symptoms. Symptoms of concussion typically appear immediately but may be delayed and evolve within the first 24-48 hours.
- b) When should a concussion be suspected? All players who experience any concussion reported signs and symptoms (Figure 1) or visual/observation symptoms (Figure 2) following a blow to the head or another part of the body is considered to have a suspected concussion and must stop participation in the GTHL activity immediately. A GTHL activity is defined as any GTHL onice or off-ice team function.
- c) A suspected concussion can be identified in three ways:
 - i. Self-reported signs and symptoms by a player— Even if only one symptom (Figure 1)
 - ii. Observable signs and symptoms from any team official (Figure 2)
 - iii. Peer-reported signs and symptoms from players, parents, and team officials (Figure 1 and 2)
 - iv. If a player experiences a sudden onset of any of the "red flag symptoms", 911 should be called immediately (Figure 3).

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Figure 1: GENERAL CONCUSSION SYMPTOMS				
Headache	Feeling mentally foggy	Sensitive to light		
Nausea	Feeling slowed down	Sensitive to noise		
Dizziness	Difficulty concentrating	Irritability		
Vomiting	Difficulty remembering	Sadness		
Visual problems	Drowsiness	Nervous/anxious		
Balance problems	Sleeping more/less than usual	More emotional		
Numbness/tingling	Trouble falling asleep	Fatigue		

Figure 2: VISUAL/OBSERVABLE SYMPTOMS		
Lying down motionless on the playing surface		
Slow to get up after a direct or indirect hit		
Disorientation or confusion, or an inability to response appropriately to questions		
Blank or vacant look		
Balance, gait difficulties motor incoordination, stumbling, slow labored movements		
Facial injury after head trauma		

Figure 3: RED FLAG SYMPTOMS		
Headaches that worsen	Can't recognize people or places	
Seizures or convulsion	Increasing confusion or irritability	
Repeated vomiting	Weakness/tingling/burning in arms or legs	
Loss of consciousness	Persistent or increasing neck pain	
Looks very drowsy/can't be awakened	Unusual behavioural change	
Slurred speech	Focal neurologic signs (e.g. paralysis, weakness, etc.)	

Note: The <u>Concussion Recognition Tool 5</u> is valuable for all first responders in recognizing suspected concussion and responding to more severe brain injury or potential neck injury.

3. REMOVAL-FROM-SPORT PROTOCOL, REPORT, AND REFER

a) Who is responsible for removal-from-sport? If a suspected concussion occurs, it is the responsibility of all team officials (coach, assistant coach, trainer, assistant trainer, manager, assistant manager or executive member) to remove the player from participation in the hockey activity immediately. When present, team trainers hold the final decision to remove players with a suspected concussion. If there is doubt whether a concussion has occurred, it is to be assumed that it has. If in doubt, sit them out. NOTE: If there are any red flag symptoms (Figure 3) or a neck injury is suspected, activate your Emergency Action Plan and call 911 immediately. The player should not be moved and should only be removed from the field of play by emergency healthcare professionals with appropriate spinal care training. More severe forms of brain injury may be mistaken for concussion. If any of the red flags symptoms are observed or reported within 48 hours of an injury, then the player should be transported for urgent medical assessment at the nearest emergency department.

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- b) Monitoring the player: Team trainers are responsible for monitoring the player with a suspected concussion until a parent/guardian is contacted and on-site. Players with a suspected concussion should not be left alone or drive a motor vehicle. If no team trainer is present for 2(a) and 2(b); order of next most responsible individuals:
 - i. An individual with trainer certification
 - ii. Team head coach
- c) Reporting a suspected concussion using the Suspected Concussion Report Form: If a suspected concussion occurs, the team trainer is responsible for completing and reviewing the GTHL Suspected Concussion Report Form (Page 7) and provide one copy of the report to the players parents/guardian to bring to the medical assessment and another copy to the GTHL head offices (mfata@gthlcanada.com or Fax: 416-636-2035). This is to be done immediately after the concussion is suspected. If the form was completed by another individual with trainer certification or team head coach (as trainer was not present), that individual must send to the team trainer who review and submit to GTHL head offices.
- d) Referring for medical assessment: Team trainers must recommend to the individual's parent or guardian that they seek medical assessment as soon as possible. Medical assessment must be done by a medical doctor or nurse practitioner. The remove-from-sport protocol summary (Page 8) can be provided to parents and players on removal to outline requirements for medical assessment and obtaining proper documentation.

4. INITIAL MEDICAL ASSESSMENT AND DIAGNOSIS

- a) Seeking medical assessment: If a player has been deemed to have had a suspected concussion, it is the parent/guardian's responsibility to take the player to see a medical doctor or nurse practitioner as soon as possible. Players with suspected concussions may not return to any club activity until they have received medical assessment and submitted necessary documentation.
- b) Required type of initial medical assessment: In order to provide comprehensive evaluation of players with a suspected concussion, the medical assessment must rule out more serious forms of traumatic brain injury and spine injuries and must rule out medical and neurological conditions that can present with concussion-like symptoms and must make the diagnosis of concussion based on findings of the clinical history and physical examination and the evidence-based use of adjunctive tests as indicated. In addition to nurse practitioners, the types of medical doctors that are qualified to evaluate patients with a suspected concussion include: family physician, pediatrician, emergency room physician, sports-medicine physician, neurologist or internal medicine and rehabilitation (physiatrists). Documentation from any other source will not be acceptable.

Note: Written documentation by a medical doctor or nurse practitioner may be provided in any format from the medical assessment. A recommended <u>Medical Assessment Letter</u> template can be found in *Parachute's Canadian Guideline for Concussion in Sport*.

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	No Concussion	Yes Concussion
Diagnosis	If a medical doctor/nurse practitioner determines that the player with a suspected concussion DID NOT have a concussion	If a medical doctor/nurse practitioner determines that the player with a suspected concussion DOES have a concussion
Parents & Players	 ✓ Parent/guardian must take the written documentation from the medical assessment (highlighting that the player did not have a concussion), and give this document to the team trainer. ✓ Parent/guardian should continue to monitor the player for at least 24-48 hours after the event, as signs and symptoms may be delayed or evolve over that period. 	 ✓ Parent/guardian must take the written documentation from the medical assessment (highlighting that the player has been diagnosed with a concussion), and give this document to the team trainer ✓ The player is to begin stage 1 of the GTHL return-to-sport protocol.
Team Trainers & Coaches	 ✓ Team trainer to submit medical documentation to the GTHL head offices before the player is permitted to return to a GTHL hockey activity (mfata@gthlcanada.com or Fax: 416-636-2035). ✓ Team trainers and head coaches will not allow return until documentation has been received. ✓ Team trainers have the right to refuse a player to return to any GTHL hockey activity if they deem the player unfit to do so. 	 ✓ Team trainer to submit medical documentation, in addition to the Hockey Canada Injury Report Form, to the to the GTHL head offices (mfata@gthlcanada.com or Fax: 416- 636-2035). ✓ Team trainers and head coaches will follow gradual return-to-sport protocol and ensure no participation in stage 5 and 6 sport activities until medical clearance (See details on page 9-10)

5. RECOVERY AND CLINICAL SUPPORT

An initial period of 24-48 hour of rest is recommended before starting the return-to-sport protocol. After an initial period of rest, it is recommended that low to moderate level physical and cognitive activity be gradually started at a level that does not result in exacerbation of symptoms. Activities that pose no/low risk of sustaining a concussion should be resumed even if mild residual symptoms are present or whenever acute symptoms improve sufficiently to permit activity. Players should avoid activities associated with a risk of contact, fall, or collisions such as high speed and/or contact activities and full-contact sport that may increase the risk of sustaining another concussion during the recovery period until clearance by a medical doctor or nurse practitioner.

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Most children and adolescents (70%) who sustain a concussion will be able to return to full school and sport activities, generally within four weeks of injury. However, approximately 15-30% will experience symptoms that persist beyond that timeframe. Players who have several delayed modifiers benefit most from early referral to specialized concussion care <4 weeks (recommendation 2.1b). Players who wish to have support by a physician-led multidisciplinary team within the first four weeks of injury can seek early care services for their recovery. Players who experience persistent concussion symptoms for >4 weeks may benefit from a referral to a medically-supervised multidisciplinary concussion service.

6. RETURN-TO-SPORT PROTOCOL AND MEDICAL CLEARANCE

- **a)** After an initial period of 24-48 hour of rest, the player with a concussion must complete each stage of the *GTHL return-to-sport protocol* (Page 9-10)
- b) Parent/guardian and the player are responsible to ensure that each stage of the GTHL return-to-sport protocol is followed appropriately and the required signatures are completed at each stage. Players should complete each stage of the return-to-sport protocol for a minimum of 24 hours without new or worsening symptoms before progressing to the next stage. If a player experiences, new or worsening symptoms at a particular stage they should return to the previously successful stage.
- c) Once stages 1-4(b) of the *GTHL return-to-sport protocol* have been completed, the player must receive medical clearance to proceed to *Stage 5: Full contact practice with team* which includes on ice contact, scrimmages and body checking (if applicable). A player is not permitted to return to *Stage 5: Full contact practice with team* or *Stage 6: Game Play* until written permission by a medical doctor/nurse practitioner. In addition to nurse practitioners, the types of medical doctors that are qualified to support medical clearance for concussion include: family physician, pediatrician, sports-medicine physician, neurologist or internal medicine and rehabilitation (physiatrists). Documentation from any other source will not be acceptable.
 - Written clearance by a medical doctor or nurse practitioner may be provided in any format from the medical appointment. See <u>recommended medical clearance letter</u> <u>template</u>.
- d) Once medical clearance for Stage 5: Full contact practice with team is obtained; the parent/guardian must provide the written clearance from the medical doctor or nurse practitioner (highlighting the player is safe to return to full team practice) and completed GTHL return-to-sport protocol with signatures to their team trainer, prior to the player participating in Stage 6: Game Play.
- e) It is the responsibility of the team trainer to submit written medical clearance and *GTHL return-to-sport protocol* signatures completed to the GTHL head offices. (mfata@gthlcanada.com or Fax: 416-636-2035) prior to the player participating in *Stage 6: Game Play*.
- f) Do not progress to game play until player has regained their pre-injury skill-level and player is confident in their ability to return to game play.
- **g)** Team trainers have the right to refuse a player to return to any GTHL hockey activity if they deem the player unfit to do so.

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Special Considerations

This concussion policy aims to ensure that players with a suspected concussion are removed from play immediately, and players with a concussion do not return to full participation in GTHL hockey activities before medically cleared to do so. The above steps relate most directly to a player who sustains a concussion during a GTHL hockey activity and this injury is identified immediately. Not all concussions will be identified immediately and not all concussions will take place during GTHL hockey activities. Two alternative scenarios are presented below:

Scenario 1: A suspected concussion from a GTHL activity is not identified and/or reported until days or weeks after the GTHL activity. **Enter at Step 3: Remove-from-sport protocol, report and refer.** Immediately upon the suspected concussion being identified and/or reported to GTHL team officials, the team trainer is to complete the *GTHL Suspected Concussion Report Form* and recommend that the player seek a medical assessment as soon as possible.

Scenario 2: A player is diagnosed with a concussion from a non-GTHL activity (i.e. school, other sports, non-GTHL related games or training). Enter at Step 4 (initial medical assessment and medical diagnosis). Upon receiving written diagnosis from parent/guardian, the trainer is to submit medical assessment documentation to GTHL offices and player is to follow return-to-sport protocol. As the concussion did not happen at the GTHL activity, no GTHL Suspected Concussion Report Form is needed.

Appendix:

- 1. Suspected Concussion Report Form (Page 7)
- 2. Remove-from-sport summary (Page 8)
- 3. Return-to-sport protocol (Page 9-10)

If you have any questions regarding the GTHL Concussion Policy please contact the GTHL Office:

This GTHL Concussion Policy is available at gthlcanada.com/concussions

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