



# **UNDERWATER HOCKEY NEW ZEALAND INC**

## **CONCUSSION POLICY**

**FEBRUARY 2019**

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**Approved by:** UWHNZ Executive

## **A. Introduction**

Over the last couple of years there has been an observed increase in the number of concussions suffered whilst playing Underwater Hockey in New Zealand. Other countries have indicated the same trend of increased concussions from Underwater Hockey.

Some of these concussions are minor, some are significant but most importantly all are of concern and need to be taken seriously.

As a sport we all need to be aware of the issue, act accordingly and be in a position to deal with it in a positive manner reflecting the seriousness nature of concussion.

This document provides background to concussions in Underwater Hockey, the UWHNZ Concussion policy and Concussion Management guidelines.

These have been developed from various reference material including the ACC Sport Concussion in New Zealand National Guidelines (<https://accsportsmart.co.nz/assets/assets-final/resources-final/acc7555-accsportsmart-concussion-national-guidelines.pdf>) and the Underwater Hockey Australia 2016 guidelines.

Input has also been provided by a qualified medical practitioner with expertise in the managing of Concussion sporting activities.

## **B. Background**

### **What is Concussion**

For the layman concussion is defined as:

*“Concussion is a brain injury that can occur in any sport, particularly where there is body contact. Concussion is caused by the impact of force (a blow) to a part of the body not necessarily the head directly”.<sup>1</sup>*

### **Concussion in Underwater Hockey**

There are four key causes of concussion in UWH

- Puck to the head (head shot)
- Puck to head (illegal stop)
- Kick / Elbow to the head
- Collision with wall of pool

The additional factors for Underwater Hockey are:

- The game is played in a pool and the possibility of drowning exists albeit this is a low risk
- Instances can occur at the bottom of the pool (2m – 3m deep) where witnesses are limited - players, coaches and referees in the water at that time
- The game is based on the need to hold one’s breath
- Access to the player is limited to those in the water

It is important that all coaches, managers, players and tournament officials (especially in water referees) can identify the symptoms of concussion and the action to take.

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<sup>1</sup> Sport Concussion In New Zealand: National Guidelines – ACC

Underwater Hockey in New Zealand has a strong base of school players that are under 18. This means that the protocol will be applied differently to adult players as opposed to under 18 players, as children and adolescents should be treated differently to adults, because they normally:

- Are more prone to concussion
- Take longer to recover
- Have more significant memory and mental processing problems
- Are at greater risk of rare and dangerous neurological complications, caused by a single or second impact.

It must be noted that each case of concussion is different and due to the nature of the injury adults may be treated in the same as Under 18 players.

### **C. UWHNZ Concussion Policy**

#### **1. UWHNZ Tournaments**

In the event of a player showing any symptoms of concussion, that player will not be allowed to play in the tournament without a full medical clearance to the satisfaction of the Tournament Director.

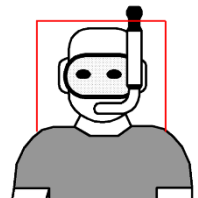
Any player with a previous concussion suffered in the past month must provide a medical certificate to play in an UWHNZ tournament. It is the schools / clubs / players obligation to provide this certificate.

The time penalties for dangerous play are to be strictly enforced as per the rules for the tournament.

#### **2. School Rules for Head Shots**

It is noted that the definition for a head shot is broader for Secondary School players than that used for adult competition and international tournaments.

For school's tournament it is from shoulders up to a line just above the head. All players are reminded of this rule in the Managers Briefing Packs for each tournament.



#### **3. First Aid Training**

Effective 2019 all tournament directors and tournament referees are to hold current first aid certificates including a component on concussions. It is expected that "Pro referees" will also have this certification.

#### **4. Reporting**

Effective 1 March 2019 all UWHNZ tournament are to have records of all concussions at the tournament.

Details are to include the following:

- Tournament
- Player
- What happened
- Date and Time of accident
- Action taken / by whom
- Outcome of accident

These records are to be maintained centrally with the relevant privacy controls and used for monitoring / reporting as required. It will also be used for monitoring of repeat accidents and possible rule changes.

Quarterly reporting is to be provided to the UWHNZ Executive Governance meeting.

UWHNZ will be seeking in co-operation with the clubs and schools for the mandatory reporting of all concussions in UWH and implement a centralised database.

#### 5. Application of Policy

- Applies to all UWHNZ tournaments
  - Not negotiable – agree or don't play
  - Adult tournaments require signed acceptance prior to playing in a tournament
- Strongly recommended<sup>2</sup> for adoption by UWH Clubs, Schools and Local Associations for:
  - All Club training, games and competition
  - All weekly Secondary School Tournaments (Auckland and Wellington)

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<sup>2</sup> It is proposed to make the adoption of this policy a condition of the affiliation of all clubs from 1/1/19.

**D. Concussion Management Plan Guidelines**

This plan is based on the internationally recognised “SIX R” plan for dealing with concussion amended specifically for Underwater Hockey

The management of concussion involves sequentially following the 6 steps where each step must be followed and completed before moving to the next step. In summary the steps are:

1. **Recognise** the signs and symptoms
2. **Remove** the player from the pool
3. **Refer** for further medical attention
4. **Rest** after the concussion
5. **Recover** from the concussion
6. **Return** to the sport

**1. RECOGNISE the signs and symptoms**

Concussion symptoms and signs are variable, non-specific and may or may not include the loss of consciousness. Not all signs or symptoms will be present, but these provide an indication of concussion. Signs may be delayed – this is very important given the nature of the sport. It may be that the players ability has changed, or they are making mistakes or are slow.

The loss of consciousness may occur after the player is removed from the pool.

SIGNS (WHAT YOU MAY SEE)	SYMPTOMS (WHAT THEY FEEL)	RED FLAGS
<ul style="list-style-type: none"> <li>Visible injury to face or head</li> <li>Loss of consciousness or non-responsive</li> <li>Dazed, blank or vacant look</li> <li>Difficulty in swimming / getting out of the pool / Not participating in the game</li> <li>Unsteady on feet/balance problems when out of the pool</li> <li>Confused/Not aware of play or events</li> <li>Grabbing/clutching of head</li> </ul>	<ul style="list-style-type: none"> <li>Headache</li> <li>Dizziness</li> <li>Mental clouding, confusion, or feeling slowed down</li> <li>Visual problems</li> <li>Nausea or vomiting</li> <li>Fatigue</li> <li>Drowsiness/feeling like “in a fog”</li> <li>Difficulty concentrating</li> <li>Pressure in head</li> <li>Sensitivity to light and noise</li> </ul>	<ul style="list-style-type: none"> <li>Complaints of neck pain</li> <li>More emotional/irritable</li> <li>Seizure (fit)</li> <li>Double vision</li> <li>Deteriorating conscious state</li> </ul>

Where a possible concussion injury occurs play must be stopped immediately, and the player assessed for possible signs or symptoms of concussion.

Where necessary the memory test can be applied:

UNDERWATER HOCKEY MEMORY TEST
<p>What pool are you playing at?                      Who are you playing?                      Who is winning?                      Which half is it now?                      Who did you last play?</p>

Addition tests could include:

- “eyes following a finger by not moving their head”;
- “stability when walking with fins on”; and
- “stand with feet together and eyes shut without wobbling too much”.

Failure to correctly answer any of these questions may suggest concussion and must result in the player being removed from the pool for further assessment.

***If in doubt get them out of the pool***

## **2. REMOVE the Player from the Pool**

Any player with suspected or recognised concussion must be removed from the pool immediately and where necessary assistance provided to remove the players mask, cap and snorkel as soon as possible. Removal of other playing gear can follow but with less urgency.

Trained pool attendants or UWH medical staff must be called immediately to provide assistance.

Other points to note:

- A player with a head injury may also have a neck injury and be managed as such. The priority is to have the player above water and to be supported on the surface of the water then move to the side of the pool. If there is concern for a neck injury, then immediate assistance should be called from the pool staff.
- Players should not be left alone
- Players should not drive a motor vehicle

## **3. REFER to Medical Doctor for Assessment**

Any player with a suspected concussion must be referred to a medical doctor for further assessment, whether this be by a local doctor or medical centre or at the Hospital.

The pool attendants will normally provide guidance on the appropriate level medical attention however a player showing the following signs should be taken to hospital immediately or an ambulance called.

- Loss of consciousness or seizures.
- Persistent confusion.
- Deterioration after being injured – increased drowsiness, headache or vomiting.
- Report of neck pain or spinal cord symptoms – numbness, tingling, muscle weakness.

**If at any time, there is any doubt the player should be referred to a hospital.**

#### **4. REST**

Rest is the cornerstone of concussion management and the player should rest completely until assessed by a doctor.

Subject to specific medical advice, the minimum rest period for adults is 24 hours and players 18 years or younger is 48 hours and when players have stopped all medication required for treatment of their concussion symptoms (e.g. pain killers for headache)

What does complete rest mean?

- Resting quietly at home until symptoms and signs have settled
- The brain needs rest: limit any tasks that require prolonged and focused memory and /or concentration
- Avoid excessive TV, use of mobile phones, electronic games, computer and phones as these can aggravate symptoms

#### **5. RECOVER**

Once symptoms and signs are settling, the player then returns in a graduated manner to activities of normal daily living (school, study or work). The player must not do any contact sport. If any symptoms re-occur during recovery, the player may need more complete rest time. Gentle exercise, that doesn't trigger symptoms, can be beneficial to recovery.

If symptoms re-occur the player should be reviewed by a medical doctor

#### **6. RETURN**

**Clearance by a medical doctor is required before returning to your sport or activity**

Competitive sport can only start again after a player has returned to activities of normal daily living without signs or symptoms of concussion and does not require medication for symptoms

They need to return to sport via the graduated return to play programme as set out in Appendix 1

In some cases, a change in playing style / technique by the player to reduce the likelihood of a repeat concussion should be considered.

#### **Multiple and more complex concussions**

This guidance applies only to players who have suffered their first concussion in a 12-month period. The guidance does not apply to players with potentially more complex injuries. The following players must see a medical doctor who is experienced in sports concussion management.

- 2 or more concussions in 12 months
- Multiple concussions over their playing career
- Concussion occurring with less collusive force
- Concussion symptoms lasting longer than expected.

**Appendix 1 - Return to play programme**

Stage	Exercise Mode	Example of Exercise Activity	Progression
1	Rest	Complete rest of body and brain	Medical doctor decides on amount of time needed
2	Light cardiovascular exercise	Light jogging for 10-15 minutes, swimming or stationary cycling at low to moderate intensity. No weight training	If no symptoms, start Stage 3 after minimum of 24 hours for adults, 48 hours for players 18 years or younger. If symptoms recur, rest 24 hours (48 hours if 18 years or younger) and repeat Stage 2
3	UWH specific exercises	Individual swimming skills and drill without contact. No weight training	If no symptoms, start Stage 4 after minimum of 24 hours for adults, 48 hours for players 18 years or younger. If symptoms recur, rest 24 hours (48 hours if 18 years or younger) and repeat Stage 2, then progress
4	UWH specific non-contact training	More complex training drills May start progressive (low level) weight training	If no symptoms after 24 hours for adult, 48 hours for players 18 years or younger a medical certificate is required to progress to level 5 If symptoms recur, rest 24 hours (48 hours if 18 years or younger) and repeat Stage 3, then progress
5	UWH practice	Full training following a medical clearance being handed to coach	Player, coach, parent to report any symptoms to medical doctor. If symptoms occur, then medical doctor to review before any more sport played.
6	UWH game	Full game	Monitor for recurring symptoms or signs and for medical review if they occur.