



NEW ZEALAND WATER POLO

CONCUSSION GUIDANCE

Effective from 25 May 2017

1. New Zealand Water Polo Concussion Policy

Concussion is a well-recognised injury that may affect athletes involved in collision and contact sports. It is important that players, parents, coaches and other officials are aware of this condition. They should be on the look-out for symptoms and signs that could indicate concussion; and be practised in the way it should be managed.

Fortunately, concussion is not nearly as common in water polo as it is in other sports. Nevertheless, cases have occurred and, no doubt, will continue to happen, due to the nature of the sport. When they do occur, cases need to be recognised and the player must be appropriately looked after.

This policy helps to provide guidance on concussion for all those involved in water polo in New Zealand.

This document is prepared specifically for the water polo public and is not a medical document.

CONCUSSION FACTS

- Concussion is a brain injury
- All concussions or suspected concussions should be considered serious
- Concussion can be fatal
- Concussion results in a brain function disturbance
- Children and adolescents should be treated differently to adults, as they:
 - are more prone to concussion;
 - take longer time 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
- Children and adolescents should therefore be treated more conservatively than adults
- Concussion usually follows a head collision
- Concussion can also occur with a collision not involving the head
- Symptoms usually develop quickly, often within 1-2 hours. Sometimes there is a delay, 24-48 hours after a collision
- Most concussions occur *without* the player being “knocked out” i.e. losing consciousness
- However, if a player is “knocked out”, they will be concussed
- **Players with suspected or recognised concussion must immediately be removed from the pool and checked out as soon as possible**
- **A player suspected of concussion cannot return to play or training on the same day**
- **Only a medical doctor can certify a player fit to return and not concussed, in suspected cases**
- Most concussions recover with the recommended physical and mental rest

2. The Six “R” Management Plan

The management of concussion involves sequentially following steps.

Each must be followed and completed before moving to the next step.

- **RECOGNISE**
- **REMOVE**
- **REFER**
- **REST**
- **RECOVER**
- **RETURN**

RECOGNISE

Concussion must be **suspected** or **recognised** if a player has **any** of the following signs, symptoms or fails to answer any of the memory questions after a head or body collision.

Signs (what you may see)	Symptoms (player may report)	Memory (questions to ask)
<ul style="list-style-type: none"> • Loss of consciousness • Dazed, blank or vacant look • Slower responses than normal • Unsteady on feet / balance problems • Confused / Not aware of plays or events • Grabbing / clutching of head • Seizure (fits) • More emotional / irritable 	<ul style="list-style-type: none"> • Headache • Dizziness • Mental clouding, confusion, or feeling slowed down • Visual problems • Nausea or vomiting • Severe Neck Pain • Drowsiness / feeling like “in a fog” • Difficulty concentrating • “Pressure in head” • Sensitivity to light or noise • Weakness, tingling or burning sensation in limbs. 	<ul style="list-style-type: none"> • “What venue are we at today?” • “What is the score?” • “Which half is it now?” • “Who scored last in this game?” • “What team did you play last week / game?” • “Did your team win the last game?”

REMOVE

- Any player with a suspected or recognised concussion **must** be removed from the pool immediately.
- The player **must not** take further part in any training or games (including other sports) on this day.
- Any player with a head injury **may also** have a neck injury.

RECOGNISE AND REMOVE - IF IN DOUBT, SIT THEM OUT

REFER

- All players with suspected or recognised concussion **must** be referred to a **medical doctor** or **emergency department** as soon as possible.
- This referral must happen even if symptoms or signs have disappeared.
- Ideally, the medical doctor who reviews the player should have experience in the diagnosis and management of sports concussion.
- The player **must at all times:**
 - be in the care of a responsible adult
 - not consume alcohol
 - not drive a motor vehicle

If any of the following **warning signs** of head injury appear, the player **must** be taken to the closest hospital Emergency Department immediately or a responsible adult **must call an ambulance** (111):

Warning signs

- Severe neck pain
- Deteriorating consciousness
- Increasing confusion or irritability
- Worsening headache
- Vomiting more than once
- Unusual or uncharacteristic behaviour
- Seizure (fitting)
- Double vision
- Weakness or tingling or burning in arms or legs

REST

- **REST IS THE CORNERSTONE OF CONCUSSION MANAGEMENT.**
- **THE PLAYER SHOULD REST COMPLETELY UNTIL ALL SYMPTOMS AND SIGNS OF CONCUSSION HAVE DISAPPEARED.**

What does complete rest mean?

- Resting quietly at home until symptoms and signs are settled
- Limit any physical exercise to short periods of low level activities
- The brain needs to rest: limit any tasks that require prolonged or focused memory and/or concentration.
- Avoid excessive TV, use of mobile devices, electronic games, computers and phones as these can aggravate symptoms.

How long should the player rest completely?

- Players must rest until all their signs and symptoms have disappeared **AND** they have stopped all medication required for treatment for their concussion symptoms (e.g. pain killers for headaches)
- The minimum complete rest period is **24 hours for adults**
- **Children and adolescents** need a **longer complete** rest period
- The required period of complete rest varies from player to player so a medical doctor will specify the minimum time of complete rest for each case.

RECOVER

- Once symptoms and signs are settled and medications are stopped, the player then returns to **activities of normal daily living** (school, study or work)
- The player **must not** perform any exercise or any organised sport
- If any **symptoms re-occur** during recovery, the player may need more complete rest time • If symptoms re-occur they should be **reviewed** by their medical doctor.

RETURN

- Exercise **can only** start after a player has returned to **activities of normal daily living** without signs or symptoms of concussion and does **not require medication** for their symptoms.
- The best way to return to sport is to follow a gradual re-introduction of exercise in a stepwise progression known as a graduated return to play programme (**GRTP**) as per the following;

Stage	Exercise Mode	Example of Exercise Activity	Progression
1	Rest	Complete rest of the brain and body	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 weights training	If no symptoms, start Stage 3 after minimum of 24 hours. If symptoms occur, rest 24 hours & repeat Stage 2
3	Water polo specific exercise	Individual swimming skills and drills without contact No weights training	If no symptoms, start Stage 4 after minimum of 24 hours. If symptoms occur, rest 24 hours & repeat Stage 2, then progress
4	Water polo specific noncontact training	More complex training drills e.g. passing drills May start progressive (low level) weights training	If no symptoms, medical certificate required before Stage 5. If symptoms occur, rest 24 hours & repeat Stage 3, then progress
5	Water polo practice	Full training following medical clearance certificate being handed to the club or school sport master	Player, coach, parent to report any symptoms to medical doctor. If symptoms occur, then medical doctor to review
6	Water polo game	Full game	Monitor for recurring symptoms or signs

Return to exercise (GRTP Stage 1 – 4)

- Stage 1 is the complete rest and recovery period.
- A player should be **cleared** by a medical doctor to commence light exercise (Stage 2).
- A player can only proceed to the next stage of the GRTP if they have no signs or symptoms of concussion at the time of exercise, later that day (after exercise) and on waking the following day. The **minimum** time between stages is **24 hours**, although children and adolescents may require a longer period of time between stages.
- If there is a recurrence of symptoms at any time during the GRTP the player must:
 - rest for a minimum of 24 hours until all symptoms and signs have settled
 - return to the previous stage at which they had no symptoms
 - recommence the progression of the GRTP
 - if a player has a recurrence of severe symptoms (e.g. requiring them to miss school, study or work) or repeatedly (more than once) during the GRTP, or if the recurrent symptoms are prolonged (more than 24 hours), the player should be reviewed by their medical doctor

Return to contact training (GRTP Stage 5)

- The player **must** have a medical **certificate** from a medical doctor to start full training (Stage 5).
- This certificate must be given to the **club** or **school sport master**.
- Players 18 years and under **cannot** return to **full** training (Stage 5) or playing for at least **2 weeks (14 days)** after all symptoms and signs have disappeared.

This restriction to return to contact training and playing applies to all players aged 18 years and under including those playing adult water polo.

Return to play (GRTP Stage 6)

A player should only return to play when they have fully recovered from concussion. This means the player **must**:

- not have any signs or symptoms of concussion at rest or in normal daily activities (school, study or work)
- have successfully completed the GRTP without any symptoms or signs of concussion (during or after full training)

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 experienced in sports concussion management:

- ≥ 2 concussions in 12 months
- Multiple concussions over their playing career
- Concussions occurring with less collision force
- Concussion symptoms lasting longer than expected i.e. a few days.