Netball Australia

POLICY FOR THE MANAGEMENT OF SPORT RELATED CONCUSSION

NATIONAL PROGRAMS & SUNCORP SUPER NETBALL

5 April 2024

In the spirit of Reconciliation, Netball Australia acknowledges Aboriginal and Torres Strait Islander peoples as the Traditional Custodians of this ancient unceded land where we live, work and play netball on.

We honour the continuing cultures, languages, and heritage of Aboriginal and Torres Strait Islander peoples whose cultural, spiritual, and ancestral connections to the lands, sky, and waters has endured since time immemorial.

We pay our respects to Elders past and present, and we acknowledge and value the significant and continuing contributions Aboriginal and Torres Strait Islander peoples make within our community.

Netball Australia is committed to Reconciliation. We acknowledge the need to reflect on our shared history in order to build a vision for a reconciled and prosperous future for all within our sport. One built on mutual respect, equity, authentic collaboration, and genuine truth-telling.

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A. Purpose

The purpose of this Policy is to:

1. provide National Programs and SSN Team healthcare practitioners with best practice guidance for the recognition and management of Sport-Related Concussion (*SRC*).
2. To safeguard and protect the short and long-term health and safety of netball Athletes from the potential risks of SRC and repeat head impacts.

B. Background

Netball Australia (***NA***) recognises that Sport-related Concussion (***SRC***, also referred to as concussion in this Policy) is a significant public health issue and that safeguarding the short and long-term health and wellbeing of netball Athletes at all levels of competition is important.

In February 2024, the Australian Institute of Sport, Sports Medicine Australia, the Australian Physiotherapy Association and the Australasian College of Sport and Exercise Physicians issued the 'Concussion and Brain Health Position Statement' (***the AIS Position Statement***) and the 'Australian Concussion Guidelines for Youth and Community Sport' (the ***AIS Guidelines for Youth & Community Sport***).

The AIS Position Statement recognises that:

> *'[s]ome high-performance athletes may have access to appropriately trained Healthcare Practitioners experienced in multi system concussion rehabilitation. These athletes may be cleared earlier if their sports concussion protocol allows.'*[1]

This Policy applies to Athletes participating in Origin Australian Diamonds programs and the Suncorp Super Netball (***SSN***), in particular Athletes contracted to an SSN Team (including Training Partners) and/or NA. Accordingly, this Policy recognises that the Origin Australian Diamonds and SSN have the benefit of Advanced Care Settings to closely monitor the Athlete's recovery and progression through the ***minimum*** 12-day protocol to return to play, that generally do not exist to the same degree in all other competitions.

This Policy adheres to the principles outlined in the most recent International Consensus Statement (6th International Conference on Concussion in Sport, Amsterdam 2022), the ***6th Consensus Statement***. Consequently, this Policy incorporates the key concepts from the 6th Consensus Statement including evidence derived from the systematic reviews and updated assessment tools.

For all other NA Pathway programs, youth and community netball, the Netball Australia Guidelines for the Management of Sports-related Concussion in Netball – NA Pathways, Youth & Community Netball (the ***NA Youth & Community Guidelines***) will apply, aligning with the AIS Guidelines for Youth & Community Sport.

In following the Policy, the diagnosis of concussion and subsequent return to play remains an individual decision by the treating medical practitioner, following the protocols and principles set forth in this document, utilising good clinical judgment, reviewing video replay of the incident and the evaluation of all the information available to the medical practitioner at the time of the Athlete's assessment.

C. Definitions

In this policy, the following definitions apply:

[1] AIS Position Statement, p 35, the Advanced Care Settings, in accordance with the AIS Position Statement.

Lying Motionless means lying without purposeful movement on the playing surface for more than two seconds. Does not appear to move or react purposefully, respond or reply appropriately to the game situation (e.g. players, umpires or medical staff). Concern may be shown by other Athletes or match officials.

Tonic Posturing means involuntary sustained contraction of one or more limbs (typically upper limbs), so that the limb is held stiff despite the influence of gravity or the position of the Athlete. The tonic posturing could involve other muscles such as the cervical, axial, or lower limb muscles. Tonic posturing can be observed whilst the Athlete is on the playing surface, or in the motion of falling, where the Athlete may also demonstrate no protective action.

No Protective Action means falls to the playing surface in an unprotected manner without stretching out hands or arms to minimise the impact of the fall, after direct or indirect contact to the head. The Athlete demonstrates loss of motor tone before landing on the playing surface.

Impact Seizure means involuntary clonic movements that comprise periods of asymmetric and irregular rhythmic jerking of axial or limb muscles.

Slow to get up means remains sitting or lying on the court despite play continuing.

Motor Incoordination means appears unsteady on feet including losing balance, staggering/stumbling, struggling to get up or falling. This may also occur in the upper limbs which will be observed as fumbling. Incoordination can occur both in the motion of getting up off the court or in the motion or walking or running.

Blank/Vacant Look means **the** Athlete exhibits no facial expression or apparent emotion in response to environment.

Facial injury means any facial laceration, facial bleeding, blood coming from mount, epistaxis or apparent eye injury.

D. Other Related Policies and Documents

The following NA policies and documents also apply to the application of this Policy:

a) NA Guidelines for the Management of Sports Related Concussion in Netball - NA Pathways, Youth and Community Netball;

b) Sports Medicine Policy for Elite Programs;

c) NA Tribunal Rules.

1. What is Sport Related Concussion

1.1 The 6th Consensus Statement defines SRC as 'a traumatic brain injury caused by a direct blow to the head, neck or body resulting in an impulsive force being transmitted to the brain that occurs in sport and exercise-related activities'.

1.2 The impact of a SRC may result in structural injury, but most often the acute clinical signs and symptoms reflect a functional disturbance and, as such, no abnormality is seen on standard neuroimaging studies such as Computerised Tomography (***CT***) or Magnetic Resonance Imaging (***MRI***).

1.3 SRC results in a range of reported symptoms and observable signs that may or may not involve loss of consciousness.

1.4 Symptoms and signs of SRC may present immediately, or evolve over minutes or hours, and commonly resolve within days, but may be prolonged.

2. Diagnosis

2.1 SRC represents a broad spectrum of brain injury rather than a single diagnostic entity. There is variability in the presentation and clinical course of SRC between individuals which can result in challenges in diagnosis as well as making management of SRC potentially complex. Therefore, it is imperative that clinicians maintain a high level of suspicion and manage each case individually.

2.2 Diagnosis can be challenging for the clinician because:

2.2.1 clinical symptoms and signs are not consistent and may evolve over time;

2.2.2 many of the features are not specific to concussion;

2.2.3 structural brain injury can present with identical clinical features and cannot always be ruled out on initial assessment; and

2.2.4 currently there is no one test or biomarker that can be relied on for an immediate diagnosis of SRC.

2.3 The diagnosis of concussion remains a clinical decision by the treating healthcare practitioner based on serial assessment of multiple domains including symptoms, signs, cognitive impairment and neurobehavioural changes. In practical terms, an Athlete who reports neurological symptoms or exhibits signs, or video signs of concussion, and/or a disturbance of cognitive function or mental disturbance following a biomechanically plausible mechanism of injury is considered to have a concussion requiring medical assessment and management.

2.4 Consideration should always be given to a structural head injury, and the Athlete assessed accordingly. If concussion is diagnosed, appropriate clinical management should follow and return to play program, as outlined in this Policy, should be completed.

2.5 Diagnosis of concussion is the responsibility of the Team Doctor or Independent Match Day Doctor (IMDD, see clause 6.5.1), without interference of any coach or other support staff. It is a breach of this policy for any coach or other support staff to interfere or attempt to interfere with the diagnosis of a concussion.

3. Screening

3.1 All newly contracted Athletes to the SSN are required to be assessed during the pre-season medical review for number of concussions, history of prolonged recovery from concussion, and the Athlete's previous management.

3.2 At a minimum, all Athletes should undergo annual pre-season baseline neurological assessment, Sport Concussion Assessment Tool 6th Edition (SCAT6) and Cognigram test. A baseline Vestibular Ocular Motor Screening (***VOMs***) test from the Sport Concussion Office Assessment Tool 6th edition (***SCOAT6***) may also be useful.

3.3 Annual baseline testing facilitates education of Athletes and interpretation of post-injury test scores, which ultimately enhances decisions regarding diagnosis and assessment of recovery. Baseline assessment should be available in hardcopy form

and kept with the Team physiotherapist for game day assessment at SSN Away games.

3.4 More detailed baseline testing (including formal neuropsychological testing +/- structural brain MRI) is strongly recommended for any Athlete with a significant concussion history (either number of concussions or history of prolonged recovery).

4. Education

4.1 NA and the SSN Teams recognise the importance of providing concussion education to Athletes, coaches and other Athlete Support Staff. NA provides annual education program to Athletes and team staff on concussion. Further education should be given by Team Doctors to the playing group as well as coaches and high-performance staff.

4.2 Athletes are provided with information so that they can recognise the common symptoms of concussion and importance of reporting symptoms, both during a match or training and in the subsequent days. Education is delivered on the short-term and potential long-term outcomes that may result from SRC. Team Physiotherapists also receive education on recognising signs of a possible concussion. Athletes, coaches and high performance staff receive education on the requirements of this Policy including match day assessment protocols as well as graded return to play protocols and are educated that clearance to return to play is strictly **a medical decision**.

5. Day of Injury Management

These SSN Day of Injury Management Protocols are not intended to limit the application of the World Netball 'Rules of Netball' (2024) or the SSN Rules of the Game, however these rules will take precedence where there is inconsistency between with these aforementioned rules of Netball in so far as they apply to the SSN.

A summary of these SSN Game Day Management Protocols is set out at Appendix 1.

For World Netball sanctioned matches where the Origin Australian Diamonds are participating, the World Netball Concussion Policy will apply. In all other matches and other circumstance where a head impact is sustained (whether in training or other circumstances), these protocols apply. If no doctor in attendance, the Team Physiotherapist will undertake the initially clinical assessment including a SCAT6 and liaise with their Team Doctor to make a final diagnosis.

5.1 OBSERVATION

5.1.1 An Independent Match Day Doctor (***IMDD***) will be engaged by NA for Home and Away SSN matches, and the SSN Finals Series. The IMDD will be responsible for providing medical care for the Away team and assisting with concussion recognition for both participating teams.

5.1.2 Each SSN Team will appoint a Home Team Doctor (***HTD***) to attend their Home matches during the Home and Away season. The HTD is responsible for providing medical care for the Home team and with concussion recognition for both participating teams and management for the Home Team.

5.1.3 For all SSN Finals matches (other than the SSN Grand Final), it is preferrable that each team have their HTD in attendance. For the SSN Grand Final, each

team must have their HTD in attendance. For all SSN Finals matches (including the SSN Grand Final), an IMDD will also be engaged by NA to support concussion recognition for participating teams. If both Team Doctors are present, the Team Doctor will manage any concussion and the IMDD role will be to assist in concussion recognition and management of injuries as required and requested by the relevant Team Doctor.

5.1.4 For 'local derby' Home and Away SSN matches (i.e. Vixens v Mavericks and Swifts v GIANTS), NA requires that both Home and Away Teams will ensure that their Team Doctor is in attendance. Where this is the case, NA will not engage an IMDD, given this role will be undertaken by the HTD and Away Team Doctor for their respective teams (with the Away Team Doctor performing the same role as the HTD for the Away Team). This protocol will also apply where an Away Team travels with their Team Doctor during the Home and Away Season to a match. In this circumstance, the Away Team must notify the NA CMO at least 7 days prior to the match that an IMDD is not required for the match.

5.1.5 The IMDD will be positioned on the field of play and easily accessible to the Reserve Umpire, at all times during play, unless providing treatment to an Athlete. If the IMDD or HTDs do not have visibility of the court (i.e. in circumstances where they are treating another Athlete in the changerooms), they should take the tablet (see below) with them so that they can continue to view the match.

5.1.6 Without limitation, the IMDD and HTD present at the match must be notified of any concerning incident involving an Athlete by the Athlete, another Athlete, the Team Physiotherapist or other bench staff. Other National Programs/SSN medical staff watching the game may also notify the IMDD and/or HTD of a possible concussive event.

5.1.7 NA provides Kayo broadcast video feeds via a tablet to the IMDD and HTD at all match venues. Video review allows direct observation of the mechanism of injury, identification of immediate signs (e.g., no protective action, impact seizure or tonic posturing) as well as signs that may occur in the time period after the injury (e.g. lying motionless, motor incoordination, dazed or blank and vacant look). It is important to review footage focusing on the Athlete in the immediate period following the injury. **Sideline video review is mandatory in the assessment of a suspected concussion.**

5.1.8 The NA CMO will review all head impacts, concussions and possible concussions at the conclusion of each Home and Away round, and each week of the SSN Finals Series.

5.2 INITIAL RESPONSE

5.2.1 In the event that a head impact is sustained during an SSN Match, the IMDD and/or HTD has the authority to call time (through the Match Delegate/Reserve Umpire) and remove any Athlete from the court for assessment.

5.2.2 An Athlete MUST be removed from play and undertake a clinical assessment, including a SCAT6 assessment if they have ***clear signs of concussion*** (SEE CATEGORY 1) or ***if they have possible or likely signs of concussion*** (SEE CATEGORY 2). This can take place following direct observation or video review. Should a SCAT6 assessment be required, the Athlete cannot return

to play within **10 minutes** from the time in which the SCAT6 assessment is commenced, in accordance with clause 5.3.2. below.

CATEGORY 1: Clear diagnosis of concussion. Requires immediate removal and no return to play	Loss of consciousness No protective action in fall to the court Impact seizure or tonic posturing Motor incoordination Dazed, blank or vacant stare or Athlete not their normal self Behaviour changes atypical of the Athlete Confusion or disorientation (e.g fails Netball Maddock's questions) Memory impairment Athlete reports significant, new or progressive concussion symptoms
CATEGORY 2: Possible (likely) diagnosis of concussion. Requires removal from play for further assessment, including SCAT6	Lying motionless for more than 2 seconds Possible tonic posturing or impact seizure Possible no protective action in fall to court Possible motor incoordination Possible dazed, blank/vacant stare Possible behaviour changes atypical of Athlete Any clinical impression from doctor that the Athlete is not quite right following a trauma

5.2.3 Where there has been ***suspicion or direct observation*** of a head impact that could lead to a concussion but there are no clear or possible signs on direct observation or video review, the assessing IMDD/HTD should perform a brief initial sideline clinical assessment of the Athlete, including an assessment of concussion symptoms and Athlete orientation which may include the Netball Maddocks Questions (Appendix 2). This assessment can occur at the next interval, or subsequent to a rolling substitution, at the discretion of the IMDD/HTD. If the assessing IMDD/HTD has any clinical suspicion that the Athlete may have clinical features suggestive of concussion, they must undertake a further assessment with a SCAT6 in accordance with clause 5.2.2 above. If the assessing IMDD/HTD determines that the Athlete does not require further assessment with a SCAT6, they may clear the Athlete to return to play, through a rolling substitution, another time out, new injury time or interval as per the current rules.

5.2.4 If an Athlete is removed from play by the assessing IMDD/HTD, the Athlete must not resume play until having completed the graded return to play protocol. If an Athlete is not cleared by the assessing IMDD/HTD to return to play, this must be clearly communicated to the SSN Team Physiotherapist and coach as soon as practicable.

5.2.5 The Head Injury Assessment (***HIA***) form must be completed by the assessing IMDD/HTD for any case of suspected concussion or head impact (Appendix 3).

5.2.6 All HIA's should be entered directly, or hardcopies uploaded to the Athlete's AMS profile in a timely manner. This information will be utilised by the NA Chief Medical Officer (***CMO***) as part of ongoing audit/compliance, education and research activities.

CATEGORY 1: Clear diagnosis of concussion	The Athlete should be medically evaluated in accordance with standard emergency management principles, with attention given to excluding a cervical spine injury.

	Assessment for a structural head injury should be undertaken, and the Athlete transported to hospital via an ambulance if there are abnormal neurological signs or signs of a structural head/neck injury. The Athlete must be educated on the signs of and re-assessed for deterioration. **The Athlete must not be returned to play on the day of injury and must return to play via the graded return to play protocol.**
CATEGORY 2: Possible (probable) diagnosis of concussion	The Athlete should be removed from the court. Assessment including SCAT6 should take place in a quiet, distraction free environment.
Head impact injury without possible or clear signs of concussion	Video review must be undertaken (via tablet) to exclude clear or possible signs of concussion. Assessment via a rolling sub or at next available opportunity e.g. a Time Out or quarter time Obtain history of the incident from Athlete & clinically assess (symptoms, memory impairment). Continue to monitor throughout the game and remove from play for further assessment if clinical concerns evolve regarding a possible concussion.

5.2.7 All head impacts assessed by the IMDD must be communicated to the Away Team Doctor and Physiotherapist following the game to ensure there is follow up of the Athlete in relation to possible delayed concussion.

5.3 ASSESSMENT AND MANAGEMENT

5.3.1 The Athlete should be allowed to rest while the IMDD/HTD reviews the video if required (via tablet).

5.3.2 Where required in accordance with clause 5.2.2. above and this clause, the Athlete should be fully assessed, using the SCAT6 with comparison made with the Athletes baseline via AMS (or hardcopy baseline SCAT6). Should a SCAT6 assessment be required, the Athlete cannot return to play within **10 minutes** from the time in which the SCAT6 assessment is commenced. The Match Delegate, once notified by the IMDD/HTD that a SCAT6 is being undertaken, is responsible for timing the 10 minutes, and providing advice to the IMDD/HTD as to this timing.

5.3.3 In the case that a full assessment has taken place (history, full assessment +/- video review where available) and no diagnosis of concussion is made, the doctor can then make the decision to return the Athlete to play.

5.3.4 The SCAT6 is not in itself diagnostic, but a tool to assist with decision making. If there is any clinical suspicion by the assessing doctor, but the Athlete has recorded a 'normal' SCAT6, a cautious approach is recommended. The diagnosis of concussion remains a clinical decision based on the serial assessment in a range of domains including symptoms, signs, cognitive impairment and neuro-behavioural changes.

5.4 FOLLOW UP

A: Diagnosed concussion

5.4.1 If an Away Team Athlete: IMDD to discuss initial management with SSN Team physiotherapist and then hand over to Athlete's Team Doctor as soon as able.

5.4.2 Home Team Athlete: HTD to organise follow up review with Athlete.

5.4.3 Origin Australian Diamonds: Diamonds or SSN Team Doctor will manage the concussion.

B: If concussion is not diagnosed and Athlete returned to play on the day:

5.4.4 As symptoms can evolve over time, the Athlete must be observed and reassessed throughout, after, and in the days following the match or day injury is sustained for symptoms, with appropriate hand over and follow up with the SSN Team Doctor and Physiotherapist.

5.4.5 All Athletes who have had a concussion assessment during the match or on the day of injury and are returned to play, must be regularly medically assessed during the match (or training) and when clinically indicated undergo a repeat assessment including a SCAT6 at the completion of the match or training (or the following day).

6. Management and Return to Play

6.1 Decisions regarding return to sport (training or match play) following SRC rely on a multi-faceted clinical approach managed by the Team Doctor. The Team Doctor must provide clearance for the Athlete to resume training and match play in line with this Policy.

6.2 Measurement of recovery has challenges as domains typically recover independently and many tools used to measure clinical recovery lack sensitivity. A **conservative approach to return to play is therefore recommended**.

6.3 The minimum requirement is that an Athlete must have:

6.3.1 returned to baseline level of symptoms and cognitive performance;

6.3.2 had resolution of all neurological signs; and

6.3.3 have completed a graded loading program without recurrence of symptoms or signs of SRC.

6.4 The SCAT6 is a useful tool to facilitate assessment in the first 72 hours after a concussion.

6.5 Use of the SCOAT6 in monitoring recovery is recommended after this point and provides a more comprehensive assessment of domains that may be affected by SRC, providing a more complete tool to measure clinical recovery during the graded return to play process. Attention should be given to early identification and treatment of coexisting pathologies such as cervical spine injury, vestibular deficits and psychological factors which may contribute to ongoing symptoms.

6.6 The graded return to play protocol consists of three stages (as outline in Table 1) and is designed to provide graded progression to return to play that considers the Athlete's clinical presentation and recovery, within a high performance environment that facilitates close medical monitoring.

6.7 Athletes must be monitored medically as they progress through the graded return to play protocol and should have at least 24 hours between each step.

6.8 The earliest that an Athlete can return to play after a concussion is on the 12th day from which the concussion was sustained. The time frame for clinical recovery following a concussion is typically 7-10 days. Therefore, the average time to return to play is expected to be 2-3 weeks.

6.9 A more conservative approach is important in cases where symptoms or clinical features persist beyond 48 hours; or those with any "modifying" factors (i.e. multiple concussions, learning disabilities or mood disturbance, high symptom burden in the first few days after injury etc or players 18 years or younger. In these cases, it is recommended the Athlete be clear of any concussion-related symptoms, signs or deficits for at least 2 weeks before clearance to return to play (e.g. the duration of Stage 3 should be doubled in these cases).

STAGE 1: REST	A brief period of relative rest for 24-48 hours. Athletes should be allowed to engage in their activities of daily living following injury. Screen time should be minimised in the first 48 hours.
STAGE 2: RECOVERY	A recovery period with symptom-limited, progressive increases in physical and cognitive over a minimum of 4 days. Physical activity should be encouraged and used therapeutically but should be done under guidance of the healthcare team in a safe environment. The recovery phase can be individualised to the Athlete's symptoms, level of function and training requirements. The focus of each stage should be progressive cognitive and cardiovascular loads. No team-based training drills can be included in this stage. Mild but brief exacerbation of symptoms is acceptable (i.e. an increase of no more than 2 points on a 0-10 point scale for less than an hour) however if more than mild exacerbation of symptoms, the Athlete should stop and attempt to exercise in 24 hours.
STAGE 3: GRADED LOADING PROGRAM	This stage consists of six steps prior to medical clearance for unrestricted return to play. Athletes must have medical clearance to enter stage 3 and have fully clinically recovered including completion of a SCAT6 that has returned to baseline. Prior to returning to games, Athletes must successfully complete a Cognigram test that has returned to baseline (or within normative range).

	The final decision regarding fitness to return to play is a medical decision based on clinical judgement.

7. Role of neuropsychological testing, imaging & other investigations

7.1 Computerised screening cognitive tests provide a practical method to assist with the assessment of cognitive recovery and have been validated for use following SRC (e.g. Cognigram). It is important however that computerised screening tests form only one component of the assessment and they do not replace the need for a full history and clinical examination.

7.2 Given that concussion affects multiple domains and there is currently no single objective test of recovery, consideration should be given to assessment using psychological screening tools, advanced imaging, formal neuropsychological and VOMs testing.

7.3 Conventional imaging (CT or MRI) should be considered in cases where there is a concern regarding an underlying structural head injury. If a structural MRI is ordered, at a minimum, the following sequences should be obtained: Sagittal T1, Axial T2, Axial DWI, Axial FLAIR, Axial SWI (or similar sequence) and Axial dual echo T2.

8. Difficult or Complicated Cases

8.1 Cases in which symptoms or clinical features (e.g. cognitive deficit) persists for more than 4 weeks; complicated cases; second or subsequent concussions in one season or cases involving decisions regarding retirement due to SRC, should be managed in a multi-disciplinary manner.

8.2 These cases are often complex and may require assessment of multiple domains including mental health, vestibular ocular function or autonomic assessment. In any such case, it is required that the Team Doctor involve an independent clinician with expertise in concussion management, to assist in management decisions. Neuroimaging and neuropsychology testing is strongly recommended in these Athletes. **The NA CMO must be notified by the Team Doctor of all difficult or complicated cases**. The discussion will be treated with strict medical confidentiality.

9. Investigations

9.1 The NA CMO, in their absolute discretion, may initiate an investigation into any alleged breaches of the Policy.

9.2 Disciplinary action under contract or the Suncorp Super Netball Team Licence Agreement or the Sports Medicine Policy for Elite Programs may be pursued by Netball Australia on the advice of the NA CMO, in consultation with the NA Head of Integrity.

10. Useful links, resources and References

General Resources

Concussion in Australian Sport | Concussion in Australian Sport (concussioninsport.gov.au)

Patricios JS, Schneider KJ, Dvorak J, et al. Br J Sports Med 2023;57:695–711. Consensus statement on concussion in sport: the 6th International Conference on Concussion in Sport–Amsterdam, October 2022 (bmj.com)

Concussion Assessment Tools

Concussion Recognition Tool 6 (CRT6) (For use by non-healthcare practitioners)
The Concussion Recognition Tool 6 (CRT6) (bmj.com)

Pocket Recognition Tool
267.full.pdf (bmj.com)

SCAT6 Adult – Sport Concussion Assessment Tool (For use by healthcare practitioners)
Sport Concussion Assessment Tool 6 (SCAT6) | British Journal of Sports Medicine (bmj.com)

SCOAT6 Adult– Sport Concussion Assessment Tool (For use by healthcare practitioners)
Sport Concussion Office Assessment Tool 6 (SCOAT6) | British Journal of Sports Medicine (bmj.com)

Other resources

Davis GA, Purcell LK. The evaluation and management of acute concussion differs in young children. Br J Sports Med 2014;48:98–101.

Echemendia RJ, Burma JS, Bruce JM et al. Acute evaluation of sport-related concussion and implications for the Sport Concussion Assessment Tool (SCAT6) for adultds, adolescent and children: a systematic review. Br J Sports Med 2023;57:722-735.

Makdissi M, Davis G, Jordan B, Patricios J, Purcell L, Putukian M. Revisiting the modifiers: how should the evaluation and management of acute concussions differ in specific groups? Br J Sports Med 2013;47:314–20.

11. Policy Review

This Policy will be reviewed annually or as directed by NA CMO.

END

VERSION HISTORY

Reference Number:	**MED001**
Policy:	**Po**licy for the Management of Sport Related Concussion - National programs and Suncorp Super Netball
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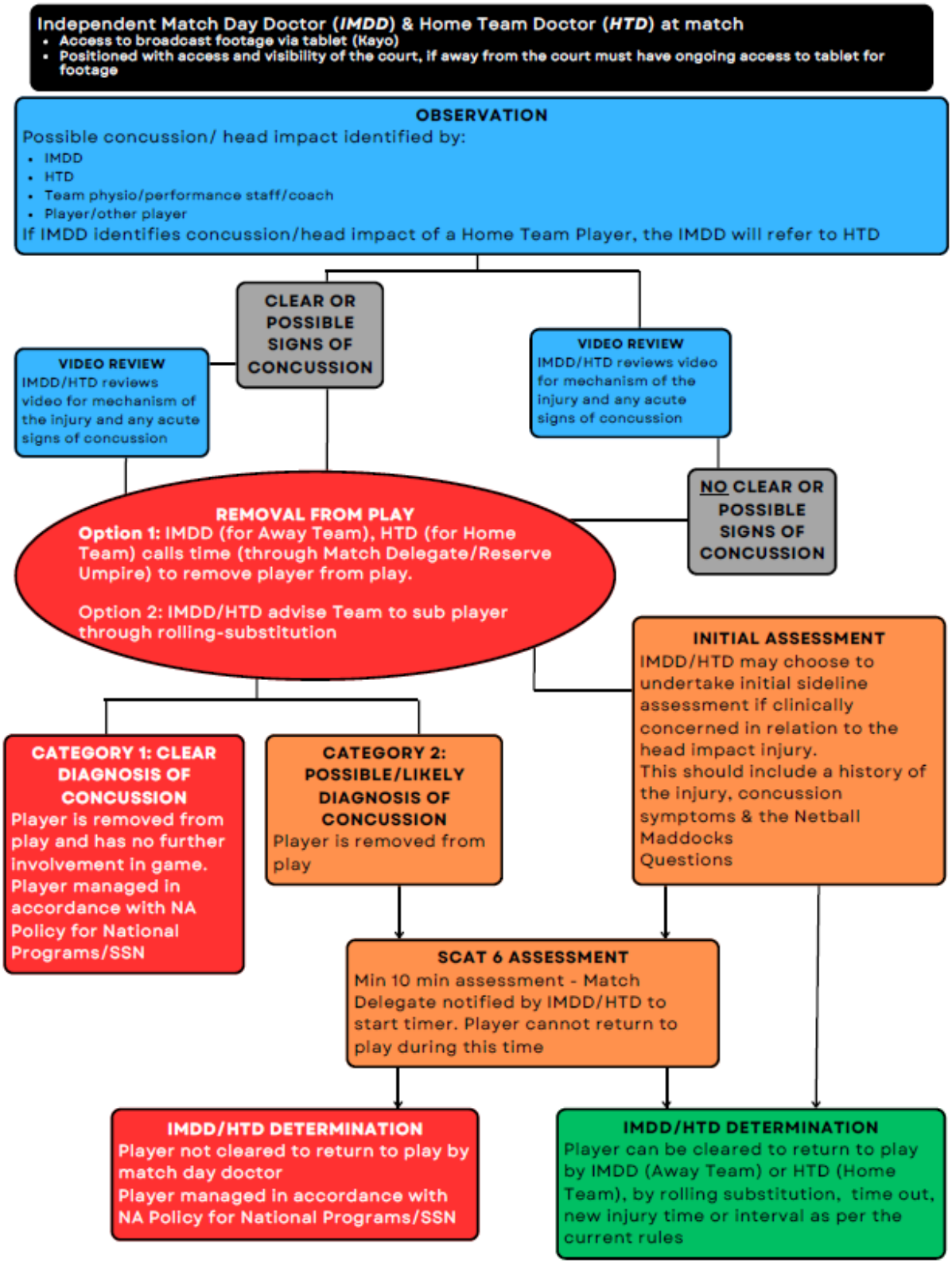
Supersedes:	Concussion Policy Position Statement Concussion Guidelines National Programs and SSN

Table 1: Return to play program following concussion

STEP	STAGE 1: REST	STAGE 2: RECOVERY				STAGE 3: GRADED LOADING PROGRAM						
Components	Relative Rest	Symptom-limited activity	Symptom-limited activity	Symptom-limited activity	Symptom-limited activity	Non-contact training	Recovery day	Limited contact training	Recovery day	Full contact	Recovery day	Unrestricted return to play
Goal	Limit further injury & allow recovery	Activities of daily living	Light aerobic exercise (e.g. walking / jog / cycling at slow to medium pace) No resistance training	Moderate aerobic exercise (i.e. Increased heart rate) No resistance training	Increased intensity and duration of activity Add sports specific drills (e.g. passing, shooting) Commence resistance training	Return to full team training sessions – non-contact only	Can participate in other components of the training program (e.g. weights)	Full team training – but able to participate in drills with incidental contact	Can participate in other components of the training program (e.g. weights)	Full team training	Can participate in other components of the training program (e.g. weights)	
Duration	24-48 hours	Minimum 24 hours	Minimum 24 hours	Minimum 24 hours	Minimum 24 hours	Minimum 24 hours	Minimum 24 hours	Minimum 24 hours	Minimum 24 hours	Minimum 24 hours	Minimum 24 hours	
Requirement to Continue Progression Through Program		Concussion-related symptoms resolved or not worsened from the previous level (either during activity or by the next day)	Concussion-related symptoms resolved or not worsened from the previous level (either during activity or by the next day)	Concussion-related symptoms resolved or not worsened from the previous level (either during activity or by the next day)	Recovery of all concussion-related symptoms and signs at rest and with activity & must have a medical clearance including a SCAT6 that has returned to baseline to progress to Stage 3	Remain completely free of any concussion-related symptoms & Athlete confident to return to training	Remain completely free of any concussion-related symptoms & Athlete confident to return to training	Remain completely free of any concussion-related symptoms & Athlete confident to return to training	Remain completely free of any concussion-related symptoms & Athlete confident to return to training	Remain completely free of any concussion-related symptoms & Athlete confident to return to training	Remain completely free of any concussion-related symptoms & Athlete confident to return to match play & medical clearance including a Cognigram test that has returned to baseline (or normative range) to progress	

Appendix 1

2024 SSN Game Day Management Protocol



Appendix 2: Netball Maddocks Questions

- What venue are we at today?
- Which quarter is it now?
- What position did you play in the last quarter?
- Which post is your team shooting at this quarter?
- Did your team win the last game?

Appendix 3: Match Head Injury Assessment (HIA)

To be completed by the assessing Doctor for a suspected head or neck injury during a match and upload to the athlete's AMS as soon as practical. Alternatively, this form can be directly entered into AMS by Team Doctors. The form **must** be completed when:

- An Athlete's head forcefully hits another Athlete, the ground or an object (i.e. the ball); or
- The assessing doctor attends an Athlete or the Athlete leaves the field of play following a head knock (whether observed directly, via video review)

This form does not replace the SCAT6 which must be performed in any case of suspected or diagnosed concussion.

A. GENERAL INFORMATION

Athlete Name: _____ Club: _____

Doctor Name: _____ Date: _____

Quarter: _____ Approximate Time in Quarter: _____

B. STRUCTURAL HEAD OR NECK INJURY

Are there clinical features including abnormal neurological signs of a serious or structural head and/or neck injury requiring emergency management and hospital transfer (GCS, etc are indicated)?

☐ Yes ☐ No

C. REMOVAL FROM PLAY

The Athlete **must** be removed from play with **any** of the following clinical features observed directly or from video review (all tests below to be completed) and club support staff **must** report all observations to the Doctor:

a. Clear diagnosis of concussion requiring immediate removal and no return to play

	Observed Directly	Reported	Video Review	No
1. Clinical features of structural head injury	☐	☐		☐
2. Loss of consciousness	☐	☐		☐
3. No protective action in fall to ground[2]	☐	☐	☐	☐
4. Impact seizure[3] or tonic posturing[4]	☐	☐	☐	☐
5. Motor incoordination[5]	☐	☐	☐	☐
6. Dazed or blank/vacant stare[6]	☐	☐	☐	☐
7. Behaviour change atypical of the Athlete	☐	☐	☐	☐
8. Confusion or disorientation	☐	☐		☐
9. Memory impairment (e.g. fails Netball Maddocks questions)	☐	☐		☐
10. Athlete reports significant, new or progressive concussion symptoms	☐	☐		☐

2 Falls to the playing surface in an unprotected manner (i.e. without stretching out hands or arms to lessen or minimise the fall) after direct or indirect contact to the head. The Athlete demonstrates loss of motor tone (which may be observed in the limbs and/or neck) before landing on the playing surface.
3 Involuntary clonic movements that comprise periods of asymmetric and irregular rhythmic jerking of axial or limb muscles.
4 Involuntary sustained contraction of one or more limbs (typically upper limbs), so that the limb is held stiff despite the influence of gravity or the position of the Athlete. The tonic posturing could involve other muscles such as the cervical, axial, and lower limb muscles. Tonic posturing may be observed while the athlete is on the playing surface, or in the motion of falling, where the Athlete may also demonstrate no protective action.
5 Appears unsteady on feet (including losing balance, staggering/stumbling, struggling to get up, falling), or in the upper limbs (including fumbling). May occur in rising from the playing surface, or in the motion of walking/running.
6 Athlete exhibits no facial expression or apparent emotion in response to the environment (may include a lack of focus/attention of vision). Blank/vacant look is best appreciated in reference to the athlete's normal or expected facial expression.

b. Requires <u>immediate removal from play for further assessment.</u>

	Observed Directly	Reported	Video Review	No
11. Lying motionless (>2 seconds)[7]	☐	☐	☐	☐
12. Possible no protective action in fall to ground[2]	☐	☐	☐	☐
13. Possible impact seizure[3] or tonic posturing[4]	☐	☐	☐	☐
14. Possible motor incoordination[5]	☐	☐	☐	☐
15. Possible dazed or blank/vacant stare[6]	☐	☐	☐	☐
16. Possible behaviour change atypical of the Athlete	☐	☐	☐	☐
17. Any clinical impression or uncertainty from the team doctor that the Athlete is not quite right following trauma	☐		☐	☐

Doctor's comments regarding the above findings:

D. OUTCOME AND ACTION

If 'Yes' is selected for items 1-10, clear diagnosis of brain injury or concussion and no return to play ☐

If 'Yes' is selected for items 11-17, requires removal from play for SCAT6 ☐

If 'No' is selected for items 1-17, no criteria for removal for concussion or SCAT6 assessment ☐

*An Athlete cleared to play requires regular medical checks at least every 30 minutes and removal for SCAT6 assessment with any deterioration

E. SIGNATURE OF EXAMINING DOCTOR

Signed: Date: Time completed:

[7] Lying without purposeful movement on the playing surface for >2 seconds. Does not appear to move or react purposefully, respond or reply appropriately to the game situation (including teammates, opponents, umpires or medical staff). Concern may be shown by other Athletes or match officials.