

WAIS Concussion Policy



WESTERN AUSTRALIAN INSTITUTE *of* SPORT

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POLICY PURPOSE

The aim of this policy is to provide guidelines for WAIS staff involved in managing athletes who have sustained a sport-related concussion.

BACKGROUND

This policy places a high priority on minimising the short-term risk and long-term health consequences of Concussion and Post Concussion Syndrome (PCS). Our common goal is to achieve a successful return to sport, with full recovery and readiness for competition, in the quickest timeframe possible.

The policy provides standardised guidelines to support medical, physiotherapy and coaching staff. Our protocol is consistent with the principles outlined in the documents:

- *Concussion and Brain Health Position Statement 2023 (CBHPS23)*. This position statement is an update to the previous *Concussion in Sport Australia position statement*, launched in 2019. Both the 2019 position statement and the CBHPS23, is intended to ensure that participant safety and welfare is paramount when dealing with matters of RHT and concussion in sport.
- *Consensus statement on concussion in sport*—the 6th international conference on concussion in sport held in Amsterdam, October 2022 (British Journal of Sports Medicine, June 2023).

1. POLICY SCOPE

1.1. This Concussion Policy applies to WAIS:

- a) **Staff** – this includes all employees and independent contractors engaged by WAIS
- b) **Athletes** – all athletes who have a WAIS Athlete Scholarship
- c) **Students** – undertake by the WAIS High Performance Sport Research Centre
- d) Any other individual who has agreed to be bound by WAIS Policies

1.2. This Policy applies in all interaction settings with athletes – training and competition – and at all participation levels (recreational, sub-elite and elite).

2. DEFINITIONS

Sport Related Concussion (SRC) – “a traumatic brain injury induced by biomedical forces” [Concussion in Sport Group]

- Sport Related Concussion may be caused by a direct blow to the head, face, or neck or by impact elsewhere on the body, with impulsive force transmission to the head that occurs in sport and exercise-related activity. This initiates a neurotransmitter and metabolic cascade, with possible axonal injury, blood flow change and inflammation affecting the brain.
- Symptoms often appear immediately but may appear over minutes to hours.
- Sport-related concussion results in a range of clinical symptoms and signs that may or may not involve loss of consciousness.
- Acute clinical signs and symptoms reflect a functional disturbance rather than structural injury. No abnormality is seen on imaging studies.
- Transient neurological disturbances are usually seen, followed by spontaneous recovery within 10 days (for 80-90% of cases). However, each concussion is different. The length of time to full recovery and a full return to sport can vary between individuals, and on separate occasions in the same individual.

Mandatory Signs of Concussion – Athletes displaying any of the following clinical features (mandatory signs of concussion) should be immediately removed from sport/field/play/game:

- Loss of consciousness
- Lying motionless for >5 seconds
- No protective action taken by the athlete in a fall to the ground, directly observed/on video
- Impact seizure or tonic posturing
- Confusion, disorientation
- Memory impairment, amnesia
- Balance disturbance, or motor incoordination (eg: ataxia)
- Athlete reports significant, new, or progressive concussion symptoms
- Dazed, blank, or vacant stare, or not their normal selves

3. STANDARDS



READY

3.1. Education

- a) All WAIS coaches, performance services staff, sport physicians and sport physiotherapists must be educated or trained on how to identify and respond to suspected concussion.

3.2. Baseline Testing

- a) Any WAIS athlete can request baseline concussion testing.
- b) WAIS Sport Physicians can refer to a WAIS Concussion Physiotherapist for baseline concussion testing.

Preferred baseline assessment tools are listed in Annexure 1.

RECOGNISE

First Response: If an athlete is suspected of concussion, first aid principles apply. Follow 'DRSABCD' and phone '000' if required. Cervical spine care is important.

3.3. Trigger for a Concussion Assessment

- a) An on-site concussion assessment to screen for suspected concussion, must be completed as soon as possible (ie: within 15 minutes of the incident), when:
 - i. An athlete experiences a direct or indirect impact to their head and/or trunk associated with visible signs of a concussion, or
 - ii. The athlete reports symptoms, or
 - iii. There is clinical suspicion by medical staff, or
 - iv. A possible concussion event is reported by match officials.

Note: This is to provide rapid assessment for suspected concussion, not a definitive diagnosis of head trauma.

- b) If concussion is suspected and/or a concussion test is conducted, you must report the incident to a WAIS Sport Physician or WAIS Physiotherapist.
- c) If concussion is NOT confirmed, monitor for symptoms for a minimum of 48 hours to allow for delayed onset and evolving symptoms.

Preferred concussion assessment tools are listed in Annexure 1.

REMOVE

3.4. Removal from sport

- a) The athlete **MUST** be immediately removed from play and **MUST NOT** resume sport that day if concussion is suspected or diagnosed:
 - i. If the athlete displays any of the **Mandatory Signs of Concussion**
 - ii. If the athlete's **SCAT6 or child-SCAT6** indicates concussion
 - iii. If the athlete's **CRT6** indicates suspected concussion
- b) If in doubt sit them out.
- c) Any athlete suspected of concussion must be referred to a WAIS Sports Physician.

RE-EVALUATE

3.5. Monitoring and Re-Evaluation

- a) If concussion is suspected, the athlete:
 - i. Must not be left alone and must be monitored for the first 4-6 hours for any signs of deterioration in condition.
 - ii. Must be re-evaluated by a WAIS Sport Physician or WAIS Physiotherapist at 36-48 hours post-injury.
- b) Suspected concussion can only be ruled out if all evaluations are negative at:
 - i. Immediately post-incident, and
 - ii. 4-6 hours post-injury, and
 - iii. 36-48 hours post-injury.

REST & RECOVERY

3.6. Immediate Rest

- a) If concussion is suspected, the athlete:
 - i. Must have physical and mental relative rest for a minimum of 48 hours.
 - ii. May begin a Graded Return to Sport (GRTS) protocol following 48 hours of rest, guided by a WAIS Sport Physician or WAIS Physiotherapist.

REHABILITATION & RETURN

3.7. Graded Return to Sport (GRTS) Program

- a) Athletes returning to sport from suspected concussion must follow a Graded Return to Sport protocol (Annexure 2).
- b) The minimum time to complete a GRTS protocol, without setbacks, is:
 - i. 12-days, for adults 18 years of age and over
 - ii. 14-days, for children 13-17 years of age
 - iii. 28-days, for children 5-12 years of age
- c) If symptoms recur at any stage, the athlete must drop back to the previous asymptomatic level and try again 24 hours later.
- d) The athlete must have final clearance by a WAIS Sport Physician to return to normal training and competition.

3.8. Children and Young People (Under 18 years of age)

Sport-related concussions are common in children and adolescents under 18 years of age. For this age group, a more conservative approach to diagnosis and management is recommended.

- a) Concussion Assessment for athletes aged 8-12 years:
 - i. A WAIS Sport Physician or WAIS Physiotherapist should use the **Child-SCAT6** in assessing for suspected concussion.
 - ii. Non-medical persons can continue to use the **CRT6**.
- b) Concussion Management for athletes aged:
 - i. Under-18 years: Asymptomatic return to school is the first priority, and a pre-requisite before planning any return to sport.
 - ii. 13-17 years: The minimum time to complete a GRTS protocol without setback is 14-days.
 - iii. 8-12 years: The minimum time to complete a GRTS protocol without setback is 28-days.

3.9. Documentation in the Athlete Management System

- a) The respective assessing WAIS staff member is responsible for the timely documentation of symptom responses, post-concussion test results, and graduated return to sport evaluations, into the Athlete Management System.

4. RESPONSIBILITIES

4.1. WAIS Staff are responsible for:

- a) Removing an athlete from sport if concussion is suspected and referring the athlete to a WAIS Physician or WAIS Physiotherapist.

4.2. WAIS Physicians and WAIS Physiotherapists are responsible for:

- a) Assessing and managing the athlete's condition in line with this policy and available best practice.

4.3. Athletes are responsible for:

- a) Self-reporting to a WAIS Staff member if they suspect concussion.
- b) Following their concussion management protocol.

5. BREACH OF POLICY

5.1. A breach of this policy occurs when a person:

- a) Does not remove the athlete from sport, as per Section [3.4],
 - i. If the athlete displays any of the **Mandatory Signs of Concussion**
 - ii. If the athlete **SCAT6 or child-SCAT6** indicates concussion
 - iii. If the athlete's **CRT6** indicates suspected concussion
- b) Returns the athlete to sport before the completion of the immediate initial rest period or the assigned GRTS protocol, without clearance from a WAIS Sport Physician.
- c) Withholds or provides false or misleading information in relation to this policy.
- d) Fails to report a breach of this policy.

5.2. If a person is in breach of this policy:

- a) The complaints process within the Staff Code of Conduct, Athlete Code of Conduct or Athlete Protection Policy applies as appropriate.

6. OTHER MATTERS

Relevant WAIS policies and documents:

- WAIS Concussion Handbook
- Concussion Assessment Tools [Clinical Resources - SharePoint]

Relevant external resources:

- Concussion and Brain Health Position Statement 2023 (CBHPS23)
- Consensus statement on concussion in sport: the 6th International Conference on Concussion in Sport- Amsterdam, October 2022

7. REVIEW AND REVISION

This policy, and all related appendices, will be reviewed according to the policy revision schedule and as deemed appropriate.

Policy review will be undertaken by the Chief Medical Officer and any revisions approved by the Chief Executive Officer.

Revision History

Date	Version	Reviewed by	Changes made
19 July 2023	1.0	CMO	New Policy

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ANNEXURES

ANNEXURE 1: CONCUSSION BASELINE AND ASSESSMENT TOOLS

Tool	Good For	Baseline Assessment	Post-incident Assessment	Who Can Use It
Sport Concussion Assessment Tool (SCAT6)	First 72 hours post suspected concussion for initial diagnosis	✓	✓	
Child-SCAT6	Children aged 8-12 years	✓	✓	
BESS Balance	High-risk athletes to enhance the balance / vestibular assessment	✓		WAIS Sport Physician & WAIS Physiotherapist
Cognigram Baseline Test	High-risk sports or athletes with a history of several concussion injuries	✓		
Sport Concussion Office Assessment Tool (SCOAT6 / Child SCOAT6)	Multi-domain assessment for the sub-acute phase (*72 hours post injury)		✓*	
Concussion Recognition Tool 6 (CRT 6)	If WAIS Sport Physician or Physiotherapist is unavailable		✓	Non-medical persons

Refer to the [Clinical Resources- SharePoint] for concussion assessment tool templates.

ANNEXURE 2: RADED RETURN TO SPORT PROTOCOL – GENERAL PRINCIPLES

GRTS Stage		Minimum Period	Protocol
0	Rest	24-48 hours	Symptom-limited physical and mental activity
1	Symptom-limited activity	48 hours	<p>(1a) Symptom-limited daily activity that does not provoke symptoms</p> <ul style="list-style-type: none"> 24 hours at this step before progressing to (1b) <p>(1b) Light (low intensity) aerobic activity ie: walking, swimming, cycling (<15 minutes)</p> <ul style="list-style-type: none"> Heart rate not increasing above 55% maxHR No resistance training
2	Moderate aerobic exercise	24 hours	<p>Steady heart rate activity (<30 minutes) ie: Walking, running, cycling</p> <ul style="list-style-type: none"> 15 mins @ 70% maxHR, followed by 15 minutes at 70-85% maxHR Light resistance training can commence under guidance of WAIS Physical Preparation staff*
3	Sport-specific functional activities	24 hours	<p>Sport-specific drills and tasks can commence in a rehabilitation setting ie: agility, jumping</p> <p>Progression in resistance training can occur under the guidance of WAIS Physical Preparation staff</p>
4	Non-contact, low-impact sport-specific training	24 hours	<p>Non-contact, low-impact sport-specific training</p> <p>Prior to progressing to Stage 5:</p> <ul style="list-style-type: none"> Recovery of ALL concussion-related symptoms and signs at rest and with activity Medical clearance from WAIS Sport Physician Returned to baseline or normative SCAT6/SCOAT6
5	Contact, full regular training session	96 hours	<p>(5a) Limited contact training ie: full team training in drills or activities that require incidental contact</p> <ul style="list-style-type: none"> 48 hours at this step with at least 1x session before progressing to (5b) <p>(5b) Full contact / high impact training ie: unrestricted training with usual practice of jumps, landings, technical manoeuvres and responses, falling, physical contact</p> <ul style="list-style-type: none"> 48 hours at this step with at least 2x sessions before progressing to Stage 6
6	Unrestricted resumption of competition activities	24 hours	<p>The quickest possible progression to Stage 6 is 12- days from the day of sustaining the concussion injury</p> <p>Final clearance from a WAIS Sport Physician is required before returning to unrestricted competition</p>

*Training must not result in more than a mild and brief exacerbation of concussion symptoms ie: no more than 2 points on a 0-10 point scale for less than 1-hour, compared to prior the activity. (0 = no symptoms, 10 = worst imaginable symptoms)