WALES NETBALL
PÊL-RWYD CYMRU

Concussion Policy

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Wales Netball Concussion Policy

Introduction

This policy has been developed to provide an evidence-based guide to assist in the recognition and management of sports related concussion in those participating in Netball in Wales. The outline of this document and resources included have been adopted from England Netball's Concussion policy.

This document is intended for use not only by healthcare professionals who manage players with concussion but by everyone involved in the game of Netball in Wales including Coaches, Officials, Teachers, Parents and of course players themselves.

It is important to appreciate the potentially serious nature of concussion and treat it with respect. Although relatively uncommon in Netball compared to other sports, concussion can occur, and anyone involved in the game should be able to recognise the symptoms and signs of concussion and take the appropriate steps to manage the athlete. The key principle is to remove a player from the court if there is any concern.

'IF IN DOUBT, SIT THEM OUT'

The Concussion Recognition Tool version 6 (CRT6) (*Appendix 1)* is intended for use at all levels of Netball irrespective of medical training. It highlights the signs and symptoms suggestive of a concussion and helps guide early management when no healthcare professional is present. Scientific knowledge in the area of sports related concussion is rapidly evolving and as such, this policy will be periodically updated to reflect the changes in guidelines and consensus statements. Latest: https://bjsm.bmj.com/content/57/11/695

What is Concussion and how is it caused?

Concussion is caused by a direct or indirect blow to the head, face, neck or elsewhere on the body where force is transmitted to the head. It typically results in a rapid onset of temporary impairment of brain function. In some cases, however, symptoms may only evolve over a period of minutes to hours. Loss of consciousness occurs in less than 15% of concussion cases and is ***not*** a requirement for diagnosing concussion. Concussion may result in long term neuropathological changes to the brain, but the acute symptoms largely reflect a functional disturbance rather than structural injury and, as such, no abnormality is seen on standard MRI or CT scans. The majority of concussions (80-90%) resolve within a 7–10-day period. It is important to recognise that symptoms and time frames for recovery can vary and be more prolonged in children and adolescents.

Why is it important to recognise an episode of Concussion?

Players who continue to play or return to play with concussive symptoms are at significant risk of:

- Sustaining other injuries (to self, teammates & opposition players) due to poor decision making or reduced reaction time.
- Suffering potentially more serious head injuries, e.g., Second Impact Syndrome.
- Serious injury or death due to an unidentified structural brain injury.
- The potential development of long-term neurological deterioration (e.g., Chronic Traumatic Encephalopathy).
- A substantially reduced level of performance.

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Symptoms and Signs of Concussion

Concussion can present with a vast array of different signs and symptoms, so it is extremely important to maintain a high degree of suspicion when assessing any player following a potentially concussive event. Symptoms of concussion can include somatic (e.g., headache), cognitive (e.g., feeling like in a fog), and/or emotional symptoms (e.g., lability). Physical signs include amnesia and behavioural changes such as irritability. Cognitive function may be impaired as evidenced by slowed reaction times and there may be sleep disturbance e.g., insomnia.

Initial assessment of a potentially concussed player

Any player sustaining a potentially concussive event should be evaluated by a suitably trained healthcare professional that is competent in the assessment and management of sports related concussion and has successfully completed a relevant pitch side trauma course. If there is not such a healthcare professional present it is recommend all players of any age should be removed safely from the court and referred to an NHS Emergency Department for further assessment if there are significant signs or symptoms.

In the setting where an appropriately qualified healthcare professional is present:

- Initial assessment should include an ABCDE approach while excluding a cervical spine injury.
- If the player displays any signs or symptoms of concussion, they should be removed **immediately** from the field of play and must NOT be allowed to return to play or train again that day.
- Player assessment at this point helps to determine if the player is concussed. This requires a multi modal assessment including history, neurological examination, balance assessment and neurocognitive assessment. A SCAT6 assessment (Appendix 2) should occur in every athlete suspected of having concussion. This should be done at rest and within 3 hours of the initial injury in a quiet, relaxed atmosphere and not at the courtside.
- If the player is under the age of 13 the modified Child SCAT6 (Appendix 3) should be used, and it is advised input from a doctor with experience of managing sports related concussion is obtained.
- Both versions of the SCAT6 are for use by healthcare professionals only; for non-healthcare professionals the Concussion Recognition Tool version 6 (CRT6) should be used.
- A player with concussion should not be left alone and should be monitored at regular intervals to assess for change in their clinical condition.
- Due to potential delayed onset of symptoms any player suspected of sustaining a concussive event but who passes the initial SCAT6, and clinical assessment should be subject to a follow up SCAT6 and clinical re-assessment after 24-48hrs.
- The concussion Recognition Tool version 6 (CRT6) or SCAT 6 highlights red flag signs and symptoms that warrant immediate transfer to an Emergency Department for assessment.
- In Netball there is no current ruling to allow for court side concussion assessment and then return to play. If the player is suspected of having concussion, they must be removed from the field of play and NOT allowed to return to training or playing that day.
- NB: Players with a normal SCAT6 can still be diagnosed with concussion based on a clinical assessment by a doctor, however, players with an abnormal SCAT6 by

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definition have concussion and must be treated as such. This cannot be overruled by a medical or nonmedical opinion.

- In order to determine if a SCAT6 is abnormal this is compared to the players' baseline SCAT6 assessment which should preferably be done for every player at International/NSL level pre-season. Any variation in one or more of the assessment areas (symptom checklist, cognitive assessment and balance assessment) from baseline strongly suggests concussion.
- If baseline information is not available any of the following should be considered as suggestive of concussion on a SCAT6:
    - Symptoms: One or more symptoms in the checklist which would not usually be experienced by the player after playing or training.
    - SAC assessment: Total score 24 or below, Concentration score (digits backwards) 2 or below, Delayed recall 3 or less words.
    - Balance assessment: Tandem test-3 or more errors, single leg stance test 4 or more errors.

Management of concussion

All players diagnosed with concussion must:

- Not be left unsupervised and, when allowed home, must be under the supervision of a suitable adult who can continue to monitor their symptoms.
- Be given written advice including symptoms and signs to watch out for, advice as to when to seek help and be provided with a contact number for the responsible healthcare professional.
- Rest completely from physical and cognitive exertion – this includes excessive use of mobile phones, tablets, watching TV and academic work – until symptoms have resolved.
- Avoid taking sleeping tablets, Aspirin, Anti-inflammatory medication or sedating analgesia.
- Avoid drinking alcohol.
- Not drive until symptoms have resolved.
- Not train or play again until medically cleared.

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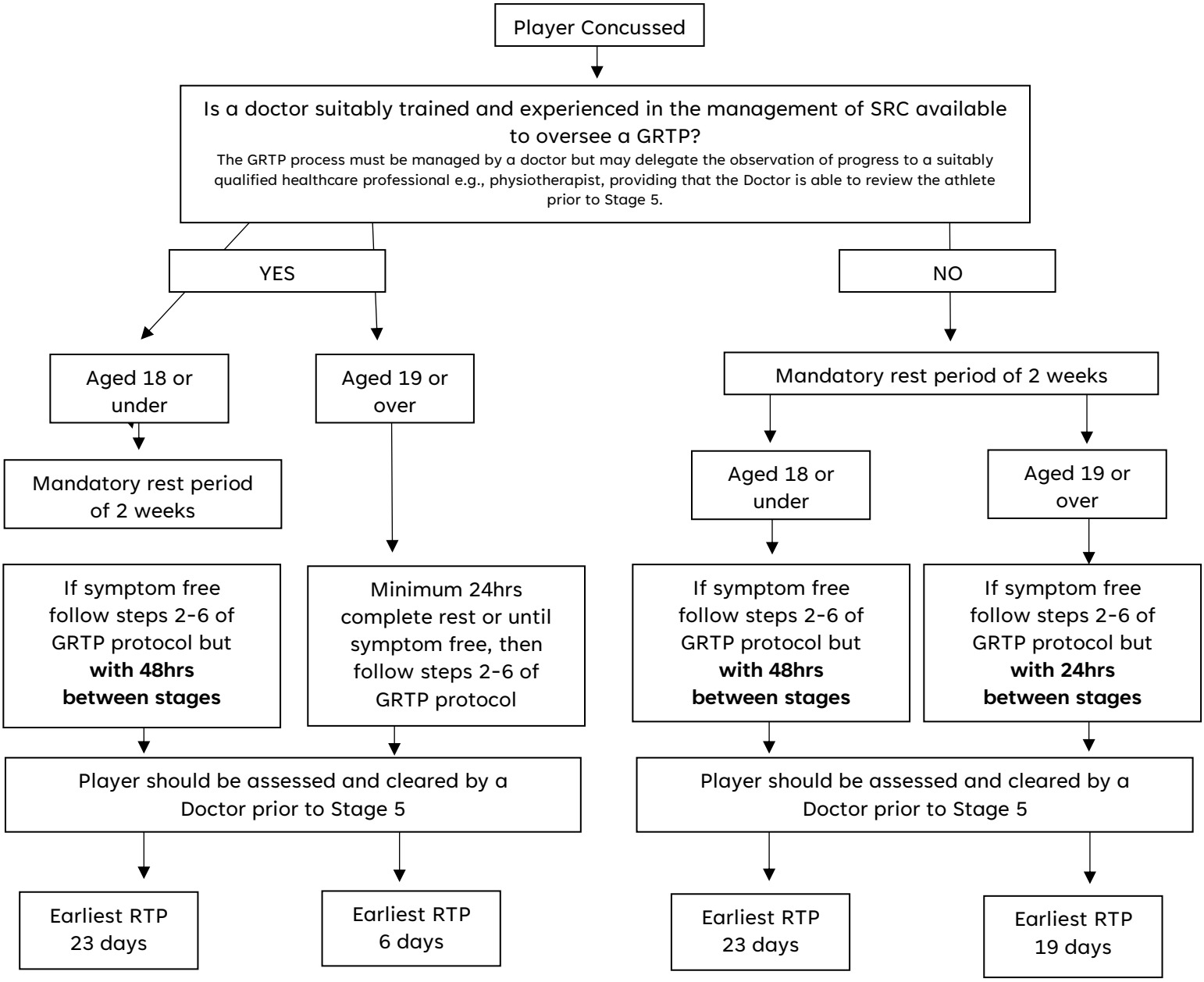
Graduated Return to Play (GRTP)

There is different advice for the use of a GRTP Protocol and mandatory stand down periods depending both on age of the player and presence of a Healthcare professional to oversee management of each stage as outlined below:



- If a player develops symptoms during the GRTP protocol they should be returned to the previous stage and the protocol restarted when they are symptom free.
- All players should be assessed by a medical professional with experience in the management of concussion prior to entering Stage 5.
- Presence of any of the following risk factors should prompt referral to a doctor or service with experience in managing concussion (e.g., Sport & Exercise Medicine Consultant/Concussion Clinic):

• Second concussion within a 12-month period
• History of multiple concussions (>3)
• Unusual presentations (e.g., associated migraines or prominent balance issues)
• Recovery that takes longer than 10 days

Player should be assessed and cleared by a Doctor prior to Stage 5

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Rehabilitation Stage	Functional Exercise	Objective
1. Symptom limited activity	Physical & cognitive rest Daily activities that do not provoke symptoms	Gradual reintroduction of work/school activities Full recovery of all symptoms
2. Light aerobic exercise	Steady pace static bike with HR <70% maximum, 30 minutes. No resistance training.	Increase in HR. Must remain symptom free for following 24hrs.
3. Netball specific exercise	Predicted change of direction drills on court	Add predicted movement. Must complete and remain symptom free for following 24hrs.
4. Uncontested training	Unpredicted but uncontested training drills. Can add resistance exercise.	Exercise, co-ordination and cognitive load. Must complete and remain symptom free for following 24hrs.
5. Full training	Following medical clearance by a doctor experienced in concussion management can participate in normal training unrestricted	Restore confidence and readiness to perform. Must complete and remain symptom free for following 24hrs.
6. Return to match play	Perform at or above previous level	Must complete and remain symptom free thereafter.

Specific areas to highlight:

Children & Adolescents (Aged 18 years and under)

Concussion in this age group often presents with differing symptoms and signs and recovery can be more prolonged. It is vital that the correct mandatory rest period of 2 weeks following an episode of concussion is respected and the time taken for each stage of the GRTP is at least 48hrs. All players in this age group must be cleared by a healthcare professional with experience in the management of concussion before stage 5 of the GRTP protocol.

Academic and Non-academic work

It is advised that academic work (e.g., school, college, university) and non-academic work is ceased following a concussion until the symptoms have resolved and stage 2 of the GRTP process has begun. During the GRTP it is also recommended that academic and non-academic work is reduced until completion of the process. This is in order to allow the brain to fully rest and recover following an episode of concussion.

Persisting symptoms (>10 days)

More prolonged recovery occurs in 10-20% of concussions. In this event it is recommended referral to a doctor with expertise in the management of sports related concussion e.g., a Consultant in Sport & Exercise Medicine or a specialist Concussion Clinic.

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Concussion modifiers

In the following situations it is recommended that a cautious approach is taken to concussion management and further expert advice from a medical professional experienced in concussion is obtained if there is any doubt.

- Increased number, duration, or severity of symptoms.
- Prolonged loss of consciousness (>1 minute) or amnesia.
- Any convulsive episode associated with concussion.
- History of repeated concussions (>3) or recent previous concussion.
- Trend towards less impact causing concussions or longer recovery period.
- Age 18 and under.
- History of Migraine, Mental Health disorder, Attention Deficit Hyperactivity Disorder, Learning Disabilities, Dyslexia, Sleep disorders.
- Prescribed anti-coagulants or psychoactive medication.
- Dangerous style of play or other high risk sport participation.

This document has been produced as a best practice guide for the sport of Netball in Wales. It should not be used as a replacement for adequate medical training, knowledge and expertise in the assessment and management of sports related concussion and does not replace thorough clinical assessment. As highlighted previously, at any stage if there is any clinical uncertainty this should warrant referral to a healthcare professional with experience in sports related concussion for review.

Mr Angus Robertson
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This document is only a guide and not intended as a clinical practice guideline or legal standard of care. Individual treatment will depend on the facts and circumstances specific to each individual case.

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Appendix 1

CRT6™

Concussion Recognition Tool

To Help Identify Concussion in Children, Adolescents and Adults

What is the Concussion Recognition Tool?

A concussion is a brain injury. The Concussion Recognition Tool 6 (CRT6) is to be used by non-medically trained individuals for the identification and immediate management of suspected concussion. It is not designed to diagnose concussion.

Recognise and Remove

Red Flags: CALL AN AMBULANCE

If **ANY** of the following signs are observed or complaints are reported after an impact to the head or body the athlete should be immediately removed from play/game/activity and transported for urgent medical care by a healthcare professional (HCP):

- **Neck pain or tenderness**
- **Seizure, 'fits', or convulsion**
- **Loss of vision or double vision**
- **Loss of consciousness**
- **Increased confusion or deteriorating conscious state (becoming less responsive, drowsy)**
- **Weakness or numbness/tingling in more than one arm or leg**
- **Repeated Vomiting**
- **Severe or increasing headache**
- **Increasingly restless, agitated or combative**
- **Visible deformity of the skull**

Remember

- In all cases, the basic principles of first aid should be followed: assess danger at the scene, check airway, breathing, circulation; look for reduced awareness of surroundings or slowness or difficulty answering questions.
- Do not attempt to move the athlete (other than required for airway support) unless trained to do so.
- Do not remove helmet (if present) or other equipment.
- Assume a possible spinal cord injury in all cases of head injury.
- Athletes with known physical or developmental disabilities should have a lower threshold for removal from play.

If there are no Red Flags, identification of possible concussion should proceed as follows:

Concussion should be suspected after an impact to the head or body when the athlete seems different than usual. Such changes include the presence of **any one or more** of the following: visible clues of concussion, signs and symptoms (such as headache or unsteadiness), impaired brain function (e.g. confusion), or unusual behaviour.

CRT6™

Developed by: The Concussion in Sport Group (CISG)

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CRT6 Concussion Recognition Tool

To Help Identify Concussion in Children, Adolescents and Adults

1: Visible Clues of Suspected Concussion

Visible clues that suggest concussion include:

- Loss of consciousness or responsiveness
- Lying motionless on the playing surface
- Falling unprotected to the playing surface
- Disorientation or confusion, staring or limited responsiveness, or an inability to respond appropriately to questions
- Dazed, blank, or vacant look
- Seizure, fits, or convulsions
- Slow to get up after a direct or indirect hit to the head
- Unsteady on feet / balance problems or falling over / poor coordination / wobbly
- Facial injury

2: Symptoms of Suspected Concussion

Physical Symptoms
Headache
"Pressure in head"
Balance problems
Nausea or vomiting
Drowsiness
Dizziness
Blurred vision
More sensitive to light
More sensitive to noise
Fatigue or low energy
"Don't feel right"
Neck Pain

Changes in Emotions
More emotional
More Irritable
Sadness
Nervous or anxious

Changes in Thinking
Difficulty concentrating
Difficulty remembering
Feeling slowed down
Feeling like "in a fog"

Remember, symptoms may develop over minutes or hours following a head injury.

3: Awareness

(Modify each question appropriately for each sport and age of athlete)

Failure to answer any of these questions correctly may suggest a concussion:

"Where are we today?"

"What event were you doing?"

"Who scored last in this game?"

"What team did you play last week/game?"

"Did your team win the last game?"

Any athlete with a suspected concussion should be - IMMEDIATELY REMOVED FROM PRACTICE OR PLAY and should NOT RETURN TO ANY ACTIVITY WITH RISK OF HEAD CONTACT, FALL OR COLLISION, including SPORT ACTIVITY until ASSESSED MEDICALLY, even if the symptoms resolve.

Athletes with suspected concussion should **NOT**:

- Be left alone initially (at least for the first 3 hours). Worsening of symptoms should lead to immediate medical attention.
- Be sent home by themselves. They need to be with a responsible adult.
- Drink alcohol, use recreational drugs or drugs not prescribed by their HCP
- Drive a motor vehicle until cleared to do so by a healthcare professional

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Appendix 2

SCAT6™

Sport Concussion Assessment Tool

For Adolescents (13 years +) & Adults

What is the SCAT6?

The SCAT6 is a standardised tool for evaluating concussions designed for use by Health Care Professionals (HCPs). The SCAT6 cannot be performed correctly in less than 10-15 minutes. Except for the symptoms scale, the SCAT6 is intended to be used in the acute phase, ideally within 72 hours (3 days), and up to 7 days, following injury. If greater than 7 days post-injury, consider using the SCOAT6/Child SCOAT6.

The SCAT6 is used for evaluating athletes aged 13 years and older. For children aged 12 years or younger, please use the Child SCAT6.

If you are not an HCP, please use the Concussion Recognition Tool 6 (CRT6).

Preseason baseline testing with the SCAT6 can be helpful for interpreting post-injury test scores but is not required for that purpose. Detailed instructions for use of the SCAT6 are provided as a supplement. Please read through these instructions carefully before testing the athlete. Brief verbal instructions for each test are given in ***blue italics***. The only equipment required for the examiner is athletic tape and a watch or timer.

Recognise and Remove

A head impact by either a direct blow or indirect transmission of force to the head can be associated with serious and potentially fatal consequences. If there are significant concerns, which may include any of the Red Flags listed in Box 1, the athlete requires urgent medical attention, and if a qualified medical practitioner is not available for immediate assessment, then activation of emergency procedures and urgent transport to the nearest hospital or medical facility should be arranged.

Completion Guide

Orange: Optional part of assessment

Key Points

- Any athlete with suspected concussion should be REMOVED FROM PLAY, medically assessed, and monitored for injury-related signs and symptoms, including deterioration of their clinical condition.
- No athlete diagnosed with concussion should return to play on the day of injury.
- If an athlete is suspected of having a concussion and medical personnel are not immediately available, the athlete should be referred (or transported if needed) to a medical facility for assessment.
- Athletes with suspected or diagnosed concussion should not take medications such as aspirin or other anti-inflammatories, sedatives or opiates, drink alcohol or use recreational drugs and should not drive a motor vehicle until cleared to do so by a medical professional.
- Concussion signs and symptoms may evolve over time; it is important to monitor the athlete for ongoing, worsening, or the development of additional concussion-related symptoms.
- The diagnosis of concussion is a clinical determination made by an HCP.
- The SCAT6 should NOT be used by itself to make, or exclude, the diagnosis of concussion. It is important to note that an athlete may have a concussion even if their SCAT6 assessment is within normal limits.

Remember

- The basic principles of first aid should be followed: assess danger at the scene, athlete responsiveness, airway, breathing, and circulation.
- Do not attempt to move an unconscious/unresponsive athlete (other than what is required for airway management) unless trained to do so.
- Assessment for a spinal and/or spinal cord injury is a critical part of the initial on-field evaluation. Do not attempt to assess the spine unless trained to do so.
- Do not remove a helmet or any other equipment unless trained to do so safely.

For use by Health Care Professionals Only **SCAT6™**

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Appendix 3

Child SCAT6™

Sport Concussion Assessment Tool

For Children Ages 8 to 12 Years

What is the SCAT6?

The Child SCAT6 is a standardised tool for evaluating concussions in children ages 8-12 years, and designed for use by Health Care Professionals (HCP). The Child SCAT6 cannot be performed correctly in less than 10-15 minutes. The Child SCAT6 is intended to be used in the acute phase, ideally within 72 hours (3 days), and up to 7 days, following injury. If greater than 7 days post-injury consider using the Child Sport Concussion Office Assessment Tool 6 (Child SCOAT6).[1]

The Child SCAT6 is used for evaluating children aged 8-12 years. For athletes aged 13 years or older, please use the SCAT6.[2]

If you are not an HCP, please use the Concussion Recognition Tool 6 (CRT6).[3]

Detailed instructions for use of the Child SCAT6 are provided as a supplement. Please read through these instructions carefully before using the Child SCAT6. Brief verbal instructions for each test are given in ***blue italics***. The only equipment required for the examiner is athletic tape and a watch or timer.

Recognise and Remove

A head impact by either a direct blow or indirect transmission of force to the head can be associated with serious and potentially fatal consequences. If there are significant concerns, including any of the RED FLAGS listed in Box 1 indicating signs that require urgent medical attention, and if a qualified medical practitioner is not present for immediate sideline assessment, then activation of emergency procedures and urgent transport to the nearest hospital should be arranged.

Key Points

- Any child with suspected concussion should be IMMEDIATELY REMOVED FROM PLAY, medically assessed, and monitored for injury-related signs, including deterioration of clinical condition.
- No child with a suspected concussion should be returned to play on the day of injury.
- If a child is suspected of having a concussion, and medical personnel are not immediately available, the child should be referred (or transported if needed) to a medical facility for assessment.
- Children with suspected or diagnosed concussion should not be given medications such as aspirin, anti-inflammatories, sedatives or opiates.
- Concussion signs and symptoms may evolve over time and it is important to monitor the child for ongoing, worsening, or development of concussion-related symptoms.
- The Child SCAT6 should not be used in isolation in making post-acute return to play decisions.
- The diagnosis of a concussion is a clinical determination made by a HCP. The Child SCAT6 should NOT be used by itself to make, or exclude, the diagnosis of concussion. It is important to note that a child may have a concussion even if their Child SCAT6 assessment is within normal limits.

Remember

- The basic principles of first aid should be followed: assess danger at the scene, child responsiveness, airway, breathing, and circulation.
- Do not attempt to move an unconscious/unresponsive child (other than that required for airway management) unless trained to do so.
- Assessment for a spinal and/or spinal cord injury is a critical part of the initial on-field assessment. Do not attempt to assess the spine unless trained to do so.
- Do not remove a helmet or any other equipment unless trained to do so safely.

Completion Guide

Blue: Required part of assessment

Orange: Optional part of assessment

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