

HEAD INJURY ASSESSMENT GUIDANCE

HEAD INJURY ASSESSMENT GUIDANCE

For ICF competitions where
a qualified medical person is in the HOC Medical Team

1. Introduction

The rate of injury in all paddle sport events is low but in some there is the potential for a collision to occur between paddlers and boats or between paddlers and rocks whilst capsized, resulting in significant impact to the head, neck or torso. This could result in concussion and require the athlete to be assessed.

This guidance defines the process to be followed by the Host Organising Committee (HOC) on-site Medical Team or Officials, should such an event occur in paddle sport events held under the jurisdiction of the ICF.

2. Definition

• **For this guidance, the first part of the 2022 Consensus Statement on concussion in sport¹ will be used:**

Sport-related concussion is 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 sports and exercise-related activities. This initiates a neurotransmitter and metabolic cascade, with possible axonal injury, blood flow change and inflammation affecting the brain. Symptoms and signs may present immediately, or evolve over minutes or hours, and commonly resolve within days, but may be prolonged.

• **In this document:**

- the term 'HOC Medical Team' also includes the First Aid Team, if there is no doctor on-site
- the term 'Chief Judge' refers to the most senior International Technical Official (ITO) at the event who has the seniority

3. Prevention of injury considerations for the Host Organising Committee

There may need to be special considerations in the design of a paddlesports course to take into consideration the risk of impact between paddlers or with underwater obstacles.

Any ICF rules governing safety, such as boat design, buoyancy aids or helmets, must be rigorously followed.

4. When should this guidance be used

- All athletes who have had an appreciable or substantial impact to the body, neck or head must be assessed for a head injury (the Head Injury Assessment, HIA).

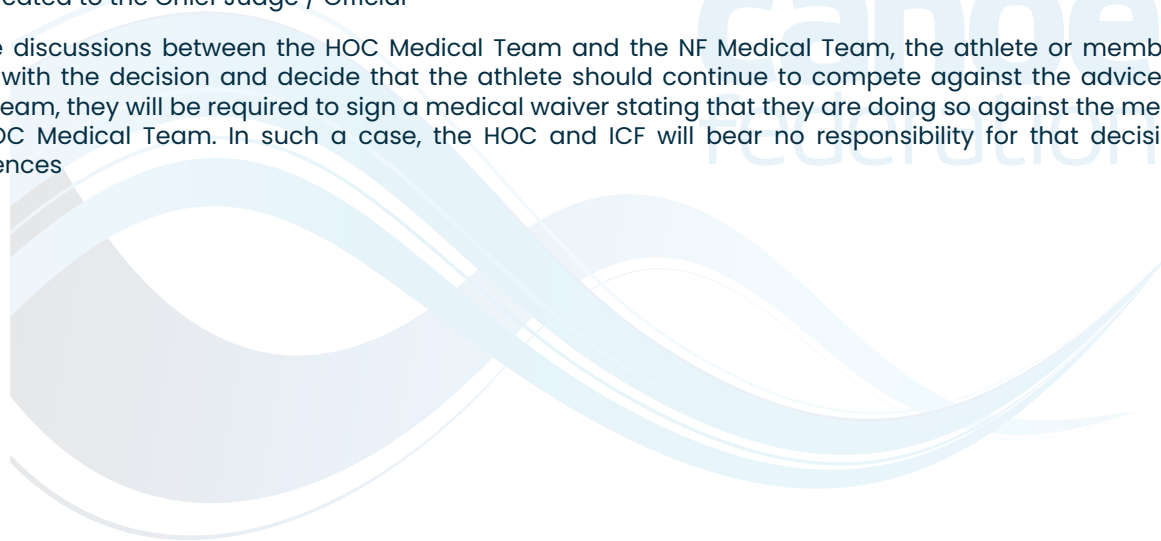
5. How should this guidance be implemented

- All athletes who have had a significant blow to the body, neck or head should be assessed for HIA by the HOC Medical Team using the Sport Concussion Assessment Tool6 (SCAT6) guidance (see Reference 2).
- The Medical Team must have copies of the SCAT6 and the SCAT6 Instructions for use readily available at the medical centre (see References 3, 4, 5)
- Any ITO who sees a blow to the body, neck or head of a paddler has the right to recommend referral to the HOC Medical Team for HIA. In some disciplines, it may be preferable for such referrals to go to the Chief Judge for the event first.
- The need for an HIA will be conveyed by the Chief Judge or ITO to the HOC Medical Team for the event
- The Chief Judge for the event and any member of the HOC Medical Team have the right to demand that an HIA is undertaken.
- Should an athlete or the National Federation (NF) refuse this demand, they will be required to complete a medical waiver. In such a case, the HOC Medical Team will bear no responsibility for that decision and any consequences.
- Additionally, an athlete or their NF have the right to request an HIA by the HOC Medical Team
- No person with a suspected head injury should drive.

Assessment of an athlete with a suspected blow to the head, neck or body

1. General points

- All medical personnel using the SCAT6 must be familiar with the assessment of head injuries and concussion using the SCAT6
- Appropriate staff include but are not exclusively:
 - Emergency Department doctors
 - Sports Medicine Doctors
 - Neurologists or other physicians with experience of HIA
 - Allied Health Professionals such as senior nurses or physiotherapists with appropriate experience, training and seniority to be able to make a 'Return to Play' decision
- Initial assessment must take place as soon as possible after the incident
- Initial assessment can be at any appropriate site off the water to determine the severity of injury.
- A golf cart or stretcher may be required for athlete transportation to the medical area or ambulance
- Whilst it is preferable that a member of the athletes' National Federation (NF) staff, e.g. doctor or physiotherapist accompanies the athlete, assessment and treatment in the emergency situation will not be delayed whilst they arrive.
- It is expected that the decision of the HOC Medical Team will be final. The decision of the HOC Medical Team will be communicated to the Chief Judge / Official
- If, despite discussions between the HOC Medical Team and the NF Medical Team, the athlete or member of the NF disagree with the decision and decide that the athlete should continue to compete against the advice of the HOC Medical Team, they will be required to sign a medical waiver stating that they are doing so against the medical advice of the HOC Medical Team. In such a case, the HOC and ICF will bear no responsibility for that decision and any consequences



The Assessment using the SCAT6 guidance

1. RED

Red flags

- Severe neck pain or tenderness
- Weakness or numbness/tingling in more than one arm or leg
- Seizure, 'fits', or convulsion
- Vomiting
- Loss of vision or double vision
- Severe or increasing headache
- Loss of consciousness
- Increasingly restless, agitated or combative
- Increased confusion or deteriorating conscious state (becoming less responsive, drowsy)
- Disorientation or memory impairment
- Unsteady on feet or balance problems
- Visible deformity of the skull

If the athlete has any red flags

- The athlete requires immediate off the water assessment and first aid treatment by the HOC Medical Team.
- Once stabilised and safe to move, they will be taken by stretcher to the ambulance for **immediate transfer to hospital**. A member of the NF management team should accompany the athlete, if available, but emergency transfer will not be delayed.
- The Chief Judge will be informed of the incident

2. AMBER

Amber flags

- Neck pain or headache
- 'Pressure in the head'
- Nausea
- Dizziness
- Blurred vision
- Sensitivity to light
- Sensitivity to noise
- Feeling slowed down
- Feeling like 'in a fog'
- 'Don't feel right'

If the athlete has no red flags but screening tests are not satisfactory (Amber)

- If initial screening using the SCAT6 guidance, clinical acumen or review of the nature of the impact are concerning, the athlete will be removed to the Medical Centre for further assessment:
 - Review of impact by video or spectator statement
 - Previous history of head injury, headaches or migraine
 - Review of any important medical history such as diabetes mellitus, epilepsy and any medication taken normally or on that day
 - Physical examination of impact area
 - Musculoskeletal and Neurological examination
 - Screening for concussion using the SCAT6 questionnaire

The Assessment using the SCAT6 guidance

- This detailed assessment will require at least 10 minutes and may cause a delay in the athlete proceeding to the next round of competition. The requirement for a delay in the next round will be discussed by the HOC and Chief Judge and will be accommodated wherever possible.
- If the further assessment is satisfactory, a decision to 'return to compete' by the athlete will be made by the HOC Medical Team and discussed with the athlete and their management team.
- Further assessment may suggest that there is evidence of concussion and the athlete will be advised that it is unsafe to return to compete.
- 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

3. The athlete is uninjured and there are no symptoms or visible signs of concussion (Green)

- Initial screening takes only 5 minutes and includes:
 - Clinical assessment
 - Brief physical examination
 - Maddock's screening questions
- The screening can take place at any appropriate place off the water
- If the screening shows no cause for concern, the athlete can continue to the next phase of competition or return to compete but will be advised of the risk that screening can be negative initially.
- The athlete will be made aware of the need to return to the medical centre in the event of new symptoms.
- Athletes will be advised to come for repeat assessment after next phase of competition or after 3-4 hours if not competing.
- Athletes should be accompanied by their team doctor or physiotherapist where possible
- The Chief Judge / Official is advised of the outcome of assessment

4. Subsequent management of potential or actual concussion

The HOC medical team will advise the athlete and their support staff of any recommendations for follow-up such as repeat medical review, SCAT6 testing or medical imaging according to their clinical assessment and the 2022 Consensus statement on concussion in sport.

Return to Play procedures should be followed according to advice from the athlete's own medical team.

5. Reporting

All incidents relating to HIA will be required to be reported to the ICF Medical and Anti-doping Committee using the attached form. All data collected will be anonymous and is required solely for the development of safety guidances in the sport.

The Assessment using the SCAT6 guidance

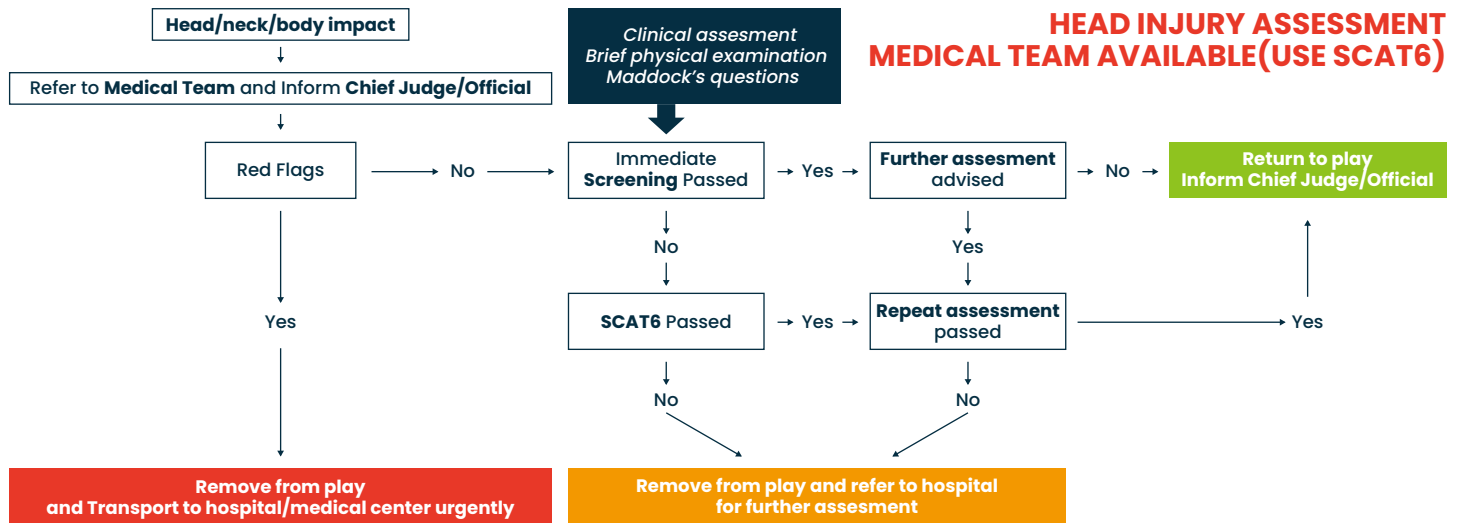


Table 1 Symptoms and signs of concussion – Red and Amber flags

Critical Symptoms/signs	Obvious symptoms/signs	Subtle symptoms
Severe neck pain Severe or increasing headache Increasing confusion, agitation or irritability Repeated vomiting Seizure or convulsion Weakness or tingling in arms or legs Deteriorating consciousness Unusual behavioural change Double vision	Loss of consciousness Seizure or jerky movements Confusion, disorientation Memory impairment Unsteady on feet or balance problem Dazed or looking blank/vacant Changed behaviour – may be more irritable, agitated, anxious or emotional than normal	Neck pain or headache 'Pressure in the head' Nausea Dizziness Blurred vision Sensitivity to light Sensitivity to noise Feeling slowed down Feeling like 'in a fog' 'Don't feel right'
Red flags If an athlete displays these symptoms/signs they may have a more serious injury. They should be immediately taken to the nearest emergency department		
Amber flags If an athlete displays these symptoms/signs they must immediately be assessed by the HOC medical team. Consider transfer to the nearest emergency department		

References and further information

1. Patricios JS, Schneider KJ, Dvorak J. et al. Consensus statement on concussion in sport: the 6th International Conference on Concussion in Sport – Amsterdam, October 2022 Br J Sports Med 2023;57:695–711 <https://bjism.bmj.com/content/bjsports/57/11/695.full.pdf>
2. The SCAT6: <https://bjism.bmj.com/content/bjsports/57/11/622.full.pdf>
3. Guidelines to using the SCAT6: <http://www.sportsconcussion.co.za/sportconcussion/wp-content/uploads/2023/07/SCAT6-Instructions-v9.pdf>
4. Video on using the SCAT6: <https://www.youtube.com/watch?v=tou7biddi2M&t=55s>
5. Downloadable SCAT6 in different languages: <https://www.concussioninsportgroup.com/scat-tools/>
6. Concussion guidance in Sport: <https://sportscotland.org.uk/media/o42lsjrt/concussionreport2018.pdf>
7. https://www.concussioninsport.gov.au/medical_practitioners#signs_and_symptoms

HEAD INJURY ASSESSMENT GUIDANCE

For ICF competitions where
there is no qualified medical person in the HOC First Responder Team

1. Introduction

The rate of injury in all paddlesport events is low but in some there is the potential for a collision to occur between paddlers and boats or between paddlers and rocks whilst capsized, resulting in significant impact to the head, neck or torso. This could result in concussion and require the athlete to be assessed.

This guidance defines the process to be followed by the Host Organising Committee (HOC) on-site Medical Team or Officials, should such an event occur in Paddlesport events held under the jurisdiction of the ICF.

2. Definition

• **For this guidance, the first part of the 2022 Consensus Statement on concussion in sport¹ will be used:**

Sport-related concussion is 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 sports and exercise-related activities. This initiates a neurotransmitter and metabolic cascade, with possible axonal injury, blood flow change and inflammation affecting the brain. Symptoms and signs may present immediately, or evolve over minutes or hours, and commonly resolve within days, but may be prolonged.

• **In this document:**

- the term 'HOC Medical Team' also includes the First Responder Team, if there is no doctor on-site
- the term 'Chief Judge' refers to the most senior International Technical Official (ITO) at the event who has the seniority

3. Prevention of injury considerations for the Host Organising Committee

There may need to be special considerations in the design of a paddlesports course to take into consideration the risk of impact between paddlers or with underwater obstacles.

Any ICF rules governing safety, such as boat design, buoyancy aids or helmets, must be rigorously followed.

4. When should this guidance be used

- All athletes who have had an appreciable or substantial impact to the body, neck or head must be assessed for a head injury (the Head Injury Assessment, HIA).

5. How should this guidance be implemented

- If there is no trained medical person to undertake an HIA, the HOC must identify an ITO or First responder who will be the designated person to assess for HIA using the Concussion Recognition Tool 6 (CRT6), designed for use by non-medical personnel
- Any ITO who sees a blow to the body, neck or head of a paddler has the right to recommend referral for HIA. Such referrals will go to the HOC designated responsible person for HIA.
- The Chief Judge for the event and any member of the HOC First Aid Team have the right to demand that an HIA is undertaken, if they are made aware of a substantial impact to the head, neck or body.
- Should an athlete or the NF refuse this demand, they will be required to complete a medical waiver. In such a case, the HOC will bear no responsibility for that decision and any consequences.
- If there is no qualified health care professional available and the athlete or NF suspects they may have concussion, they should be transported immediately to the nearest medical facility.
- 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

Assessment of an athlete with a suspected blow to the head, neck or body

1. General points

- Concussion should be suspected after an impact to the head or body when the athlete seems different from 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 (see Table 1)
- If there is no trained health care professional in attendance, screening for possible concussion should be performed by an ITO, or other responsible person, using the Concussion Recognition Tool CRT6.
- Copies of the CRT6 must be readily available at the event, with the First Responders or ITO
- Initial assessment must take place as soon as possible after the incident
- Initial assessment can be at any appropriate site off the water to determine the severity of injury.
- A golf cart or stretcher may be required for athlete transportation to the first aid area or ambulance
- Whilst it is preferable that a member of the athletes' National Federation (NF) staff, accompanies the athlete, assessment and treatment will not be delayed in the emergency situation

2. Assessment: Screen for Red Flags (Table 1)

2.1 RED FLAGS – EMERGENCY AMBULANCE TRANSPORT TO NEAREST MEDICAL FACILITY

Severe neck pain or tenderness

Weakness or numbness/tingling in more than one arm or leg

Seizure, 'fits', or convulsion

Repeated Vomiting

Loss of vision or double vision

Severe or increasing headache

Loss of consciousness

Increasingly restless, agitated or combative

Increased confusion or deteriorating conscious state (becoming less responsive, drowsy)

Visible deformity of the skull

- If there is any evidence of red flags, the event First Responders must be alerted immediately
- Allow the trained water safety team to retrieve the athlete to the water's edge
- 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
- The athlete must be immediately transferred to medical care in hospital via ambulance
- The Chief Judge / Official must be advised of the incident

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Assessment of an athlete with a suspected blow to the head, neck or body

2.2 NO RED FLAGS – AMBER

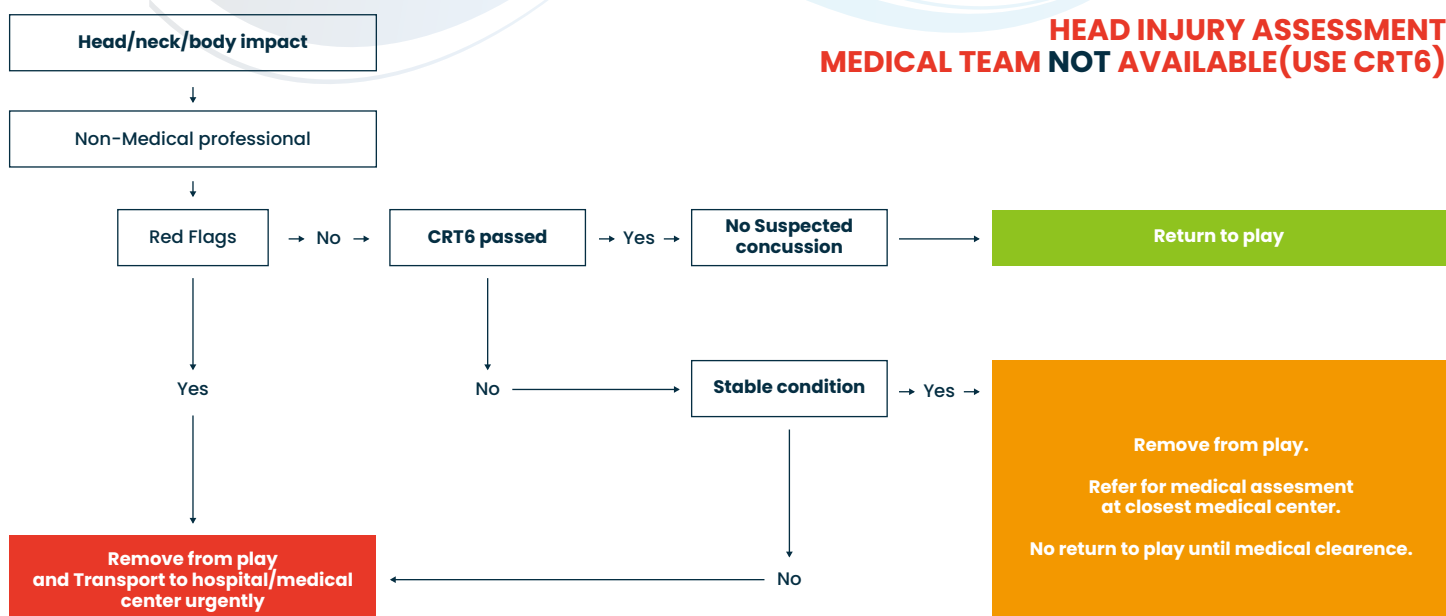
- Undertake the CRT6 screening process:
 - Visible clues
 - Physical symptoms
 - Awareness
- The screening must take place as soon as possible at any appropriate place off the water
- This assessment will require at least 10 minutes and may cause a delay in the athlete proceeding to the next round of competition. The requirement for a delay in the next round will be discussed by the HOC and Chief Judge and will be accommodated wherever possible.
- If the CRT6 suggests that there is evidence of concussion but their condition is stable with no red flags, the athlete will be advised that it is unsafe to return to compete and they must attend the nearest medical centre (**AMBER – remove from play**).
- If the screening shows no cause for concern, the athlete can continue to the next phase of competition or return to compete but will be advised of the risk that screening can be negative initially (**GREEN – return to play**).
- The athlete will be made aware of the need to attend the nearest medical centre in the event of new symptoms.

3. Return to Play

- Athletes with suspected or actual concussion should not return to any activity with risk of head contact, fall or collision until assessed medically, even if the symptoms resolve.
- Return to play advice is the responsibility of the athlete's medical team

4. Reporting

- All incidents relating to HIA will be required to be reported to the ICF Medical and Anti-doping Committee using the attached form. All data collected will be anonymous and is required solely for the development of safety guidances in the sport.



Assessment of an athlete with a suspected blow to the head, neck or body

Table 1 Symptoms and signs of concussion – Red flags

Critical Symptoms/signs	Obvious symptoms/signs	Subtle symptoms
Severe neck pain	Loss of consciousness	Neck pain or headache
Severe or increasing headache	Seizure or jerky movements	‘Pressure in the head’
Increasing confusion, agitation or irritability	Confusion, disorientation	Nausea
Repeated vomiting	Memory impairment	Dizziness
Seizure or convulsion	Unsteady on feet or balance problem	Blurred vision
Weakness or tingling in arms or legs	Dazed or looking blank/vacant	Sensitivity to light
Deteriorating consciousness	Changed behaviour – may be more irritable, agitated, anxious or emotional than normal	Sensitivity to noise
Unusual behavioural change		Feeling slowed down
Double vision		Feeling like ‘in a fog’
		‘Don’t feel right’

If an athlete displays these symptoms/signs they may have a more serious injury. They should be immediately taken to the nearest emergency department.

References and further information

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2. <https://bjsm.bmj.com/content/bjsports/57/11/695.full.pdf>
3. <https://completeconcussions.com/wp-content/uploads/2023/06/Concussion-Recognition-Tool-CRT-6.pdf>
4. Concussion guidance in Sport:
<https://sportscotland.org.uk/media/o42lsjrt/concussionreport2018.pdf>
https://www.concussioninsport.gov.au/medical_practitioners#signs_and_symptoms
5. Downloadable CRT6 in different languages
<https://www.concussioninsportgroup.com/scat-tools/>