

MMA

GUIDE TO

CONCUSSION



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WHAT IS A CONCUSSION?

It is a **common traumatic brain injury** and is described as **a set of signs and symptoms** that alter brain function through biomechanical mechanisms. This alteration affects **memory, orientation** and can cause **loss of consciousness**.

Concussion occurs when a blow to the head or body causes **the brain to move abruptly into the skull**. This sudden movement can cause the brain to impact against the inside of the skull, causing functional alterations without structural damage.

Although the distinctive feature of concussion is an immediate and transient alteration of brain function after trauma, **the risk of medium and long-term consequences should not be underestimated**, especially when concussions occur repeatedly.

Generally, a single concussion should not cause permanent brain damage. However, **a second concussion that occurred shortly after the first**, even if of less intensity, **can have permanent and disabling effects** that can trigger serious chronic neurological consequences.

Mixed martial arts (MMA) **involve a high risk of concussion** due to the frequency and intensity of blows to the head, triggering a series of biochemical processes that alter normal neuronal functioning.

This protocol aims to develop **a reference framework for the evaluation and management of concussion in MMA**, contributing to a greater understanding of this injury through an approach based on expert consensus and scientific evidence available in the literature.

WHAT TRIGGERS A CONCUSSION?

The main cause of a concussion is a **direct or indirect impact** on the head. In MMA, the main causes are:

- ⇒ **Direct** blow to the head: trauma with fists, knees or elbows directly to the head
- ⇒ **Indirect** blow: A strong impact on the torso or legs can cause a force translation to the head
- ⇒ **Fall** or **throw**: when a fighter is projected to the ground, the impact can result in a concussion

These different mechanisms can lead to a temporary alteration of brain tissue, alter neurotransmitters and cause a temporary reduction in cerebral blood flow, which impairs cognitive function.

WHY CAN A CONCUSSION HAVE SERIOUS CONSEQUENCES?

A concussion is a serious injury that affects both short- and long-term health. It is crucial to understand that a brain that has suffered a concussion is more vulnerable to suffering more injuries. If a fighter resumes activity before being fully recovered, the consequences can be very severe, such as suffering a **SIS***.

Also, it has been shown that repeated concussions increase the risk of **developing neurodegenerative diseases**, such as chronic traumatic encephalopathy (CTE), a condition that is observed in athletes who have suffered repeated impacts on the head, and that can cause **memory problems**, behavioral changes, **depression** and **dementia** early onset.



*Second impact syndrome (SIS) is a rare but fatal condition that occurs when the fighter suffers a second shock before the brain has fully healed. This can cause rapid and fatal cerebral edema.

WHAT ARE THE RISKS OF REPEATED CONCUSSIONS?

Repeated concussions could cause **serious cumulative risks** for fighters. While a single concussion can cause temporary symptoms, the recurrence of these traumas **increases the chances of permanent damage**.

With each new concussion, the brain damage becomes **more pronounced** and the recovery period tends to lengthen.

Concussion, including **subsyndromic forms** and **post-concussion syndrome**, is considered a state of transient neuronal and axonal injury.

However, **repetitive trauma** (superimposed on a lesion not yet resolved) could initiate **a series of metabolic changes** (ionic, cytoskeletal, membrane, etc.), which would act as triggers for the development of **the pathological cascade of CTE*** in susceptible individuals.

The most worrying thing is that fighters with multiple concussions have **a higher risk of long-term brain degeneration**, which can cause the following:

Deterioration of cognitive abilities

Difficulty concentrating, memory loss and decreased reasoning ability.

Post-concussion syndrome

It lasts several months, with symptoms such as headaches, fatigue, trouble sleeping and difficulty concentrating.

Chronic traumatic encephalopathy

Degenerative disease that causes cognitive disorders, confusion, aggressiveness and depressive behavior.

*Progressive neurodegenerative disease associated with repetitive brain trauma, formerly known as boxing dementia.

SIGNS AND SYMPTOMS

The signs and symptoms of a concussion may vary depending on the severity of the trauma and the fighter. They can manifest **immediately** or appear **several hours after** the incident.

There are usually **two categories**: mild to moderate symptoms and severe warning signs. Among them are:

Mild to moderate symptoms

- Headaches
- Nausea or vomiting
- Sensitivity to light or noise
- Dizziness or loss of balance
- Unusual fatigue
- Concentration or memory problems
- Blurred or double vision

Severe warning signs

- Loss of consciousness
- Seizures
- Repeated vomiting
- Loss of coordination or difficulty walking
- Change in behavior
- Inability to recognize people or places
- Secretion of transparent or bloody liquid



In the presence of **ONLY ONE serious** warning sign, the fighter **MUST** be taken to the **EMERGENCY ROOM!**

CRITERIA FOR DETERMINING A TECHNICAL KNOCKOUT BY MEDICAL DECISION IN COMBAT WITH SUSPECTED CONCUSSION

- ⇒ Loss of consciousness confirmed
- ⇒ Suspected loss of consciousness
- ⇒ Tonic posture
- ⇒ Seizures

- ⇒ Balance / ataxia problems
- ⇒ Obvious confusion
- ⇒ Not oriented in time, person, or place
- ⇒ Clearly stunned
- ⇒ Obvious behavioral changes
- ⇒ Oculomotor abnormalities
- ⇒ Other signs or symptoms of concussion identified in the ring

SIGNS AND SYMPTOMS OF ALARM FOR REFERRAL TO AN EMERGENCY SERVICE FROM THE PLACE OF THE FIGHT

- ⚠ **Glasgow < 15 points**
- ⚠ Suspected **skull fracture**
- ⚠ Rhinorrhea or otorrhea (cerebrospinal fluid that **comes out of the nose or ears**)
- ⚠ Post-traumatic **seizure**
- ⚠ Focal **neurological deficit**
- ⚠ **> 1 episode of vomiting** from head trauma
- ⚠ **Pupillary asymmetry**
- ⚠ **Progressive increase in somatic symptoms** of concussion
- ⚠ **Deterioration of the mental state / general state**

WHAT TO DO IF A FIGHTER IS SUSPECTED OF HAVING A CONCUSSION DURING TRAINING OR COMPETITION?

The diagnosis of concussion can be difficult because **the symptoms and clinical signs can change and/or evolve quickly**; most are not specific to concussion; and there is no test or trust marker that allows an objective diagnosis.

That is why **the medical team must be trained in the diagnosis of concussion** in any of their clinical expressions, including a possible associated cervical spine injury. It is vitally important to use the concept of **“identifying and removing”** the player suspected of having suffered a concussion, even without a diagnosis of certainty.

Therefore, the diagnosis of concussion remains **a clinical decision based on the evaluation of a variety of domains**, including the symptoms and signs mentioned.

When a fighter shows signs or symptoms of a concussion, **he must be immediately removed from combat or training** to avoid any risk of aggravating the injury, and the following specific steps must be followed:

- 1** → **Immediate withdrawal**
The fighter must suspend all physical activity as soon as symptoms appear.
- 2** → **Initial medical evaluation**
A health professional should perform an immediate evaluation. This evaluation includes a physical examination to evaluate cognitive function, memory, balance and neurological reflexes. **SCAT-6***, a neurocognitive test, can be used.
If a doctor is not present, the fighter must be referred to a qualified health professional within 24 to 48 hours.
- 3** → **Continuous observation**
The fighter must be monitored for 24 to 48 hours after the incident. Symptoms may progress or worsen during this time. If this happens, an additional medical evaluation may be needed to detect possible complications.

4

If severe symptoms occur

If the fighter has new symptoms such as loss of consciousness, seizures, persistent vomiting or severe confusion, he should be rushed to the hospital for further evaluation.

5

Rest and monitoring

In case of moderate symptoms, the fighter should be put on full rest, both physical and mental, with continuous monitoring to detect any worsening. During this period, it is recommended to avoid the use of screens, reading or any other cognitive activity. In addition, it is advisable to limit light and sound stimulation.

SUSPENSION TIMES

Minimum periods of suspension after a TKO/KO:

TKO/KO **WITHOUT** loss of consciousness → **30 DAYS**

TKO/KO **WITH** loss of consciousness (- than 1 min) → **90 DAYS**

TKO/KO **WITH** loss of consciousness (+ than 1 min) → **180 DAYS**

Second TKO/KO in a 90-day period after a suspension:

TKO/KO **WITHOUT** loss of consciousness → **90 DAYS**

Second TKO/KO WITH loss of consciousness (- than 1 min)
→ **180 DAYS**

Second TKO/KO WITH loss of consciousness (+ than 1 min)
→ **360 DAYS**

Third TKO/KO in a period of 365 days after the second suspension:

TKO/KO **WITHOUT** loss of consciousness → **12 MONTHS**

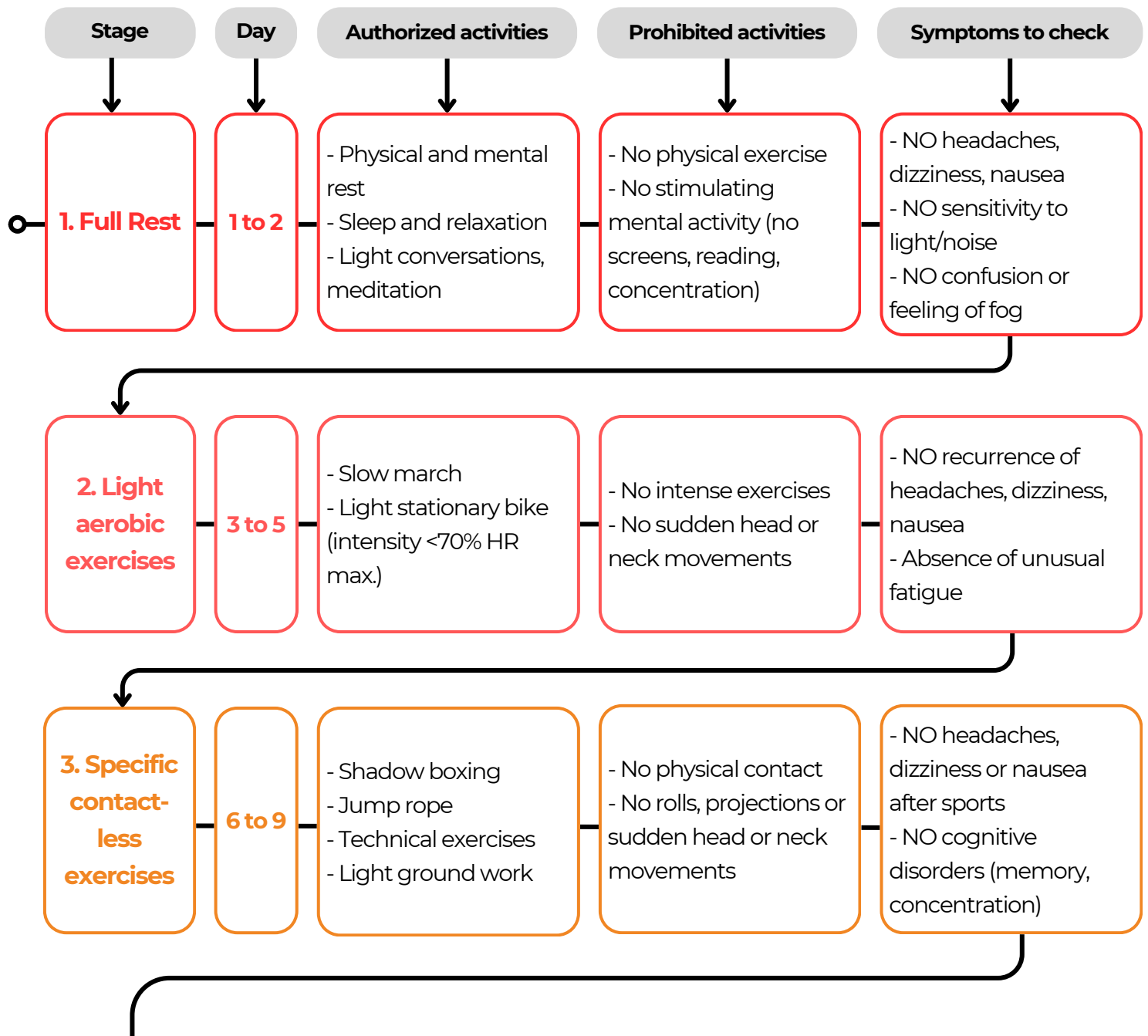
Thirds TKO/KO **WITH** loss of consciousness no matter the time
→ **18 MONTHS**

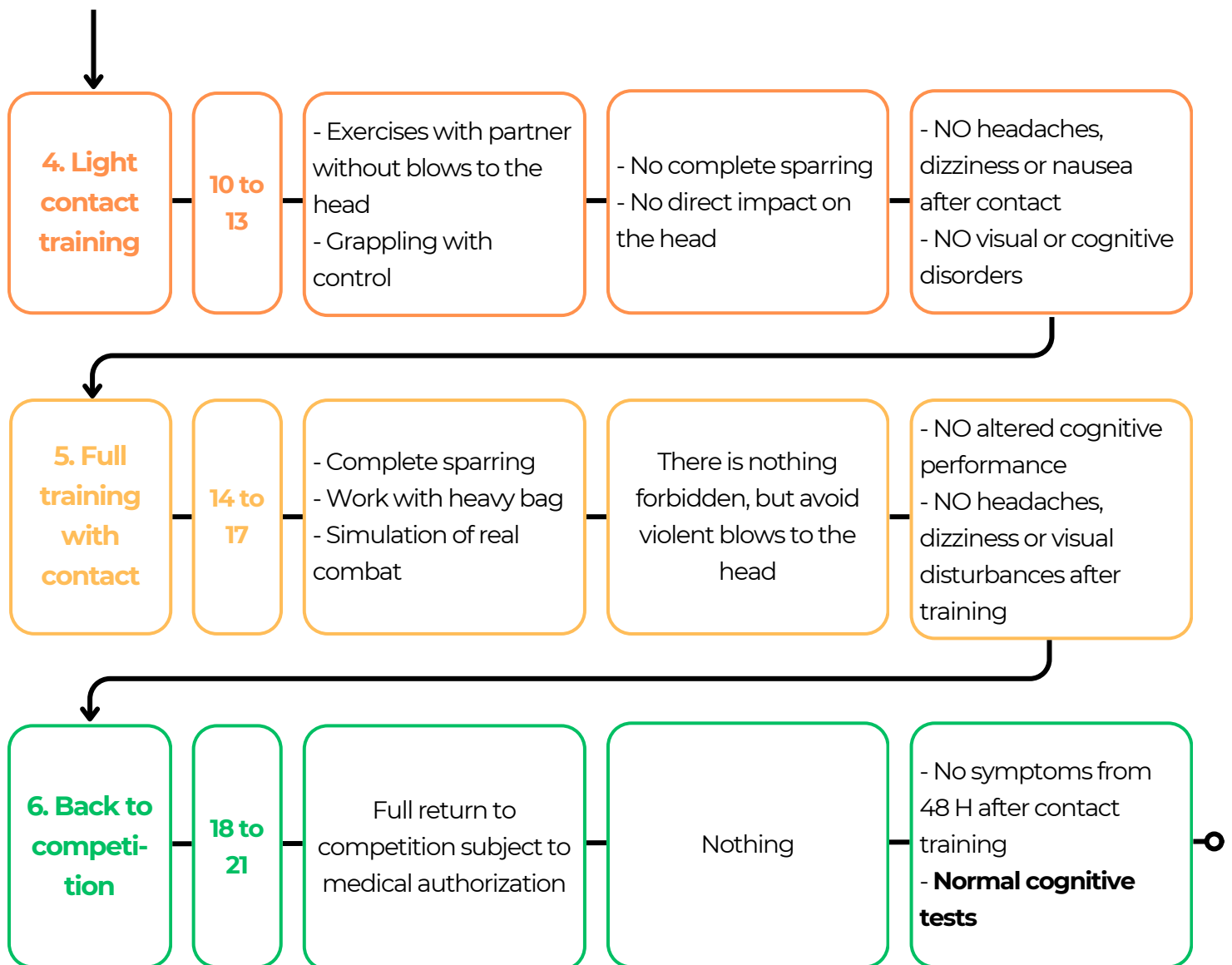
RETURN TO SPORT PROTOCOL

The return to sport (RTS) protocol after a concussion should take place over **a period of 21 days** to ensure a complete and safe recovery.

Each stage of the RTS process consists of **strict criteria** before allowing the fighter to progress to the next stage.

The fighter **can only advance from stage to stage if he is completely asymptomatic for at least 24 hours as a result of increased physical activity**. If symptoms recur, you should go back to the previous stage and wait another 24 hours before trying to progress again.





From stage 4, **neurocognitive tests** will have to be performed after training to verify possible signs and symptoms.

For the last stage, the fighter must make a **final medical consultation** to be given the authorization to compete again.

It is important that the fighter and coaches strictly follow the chronology of this return to sport protocol, to avoid the risks of a concussion, and so that the fighter can **recover all of his physical and cognitive abilities**.

CONCLUSION

The 21-day return to sport protocol aims to achieve a gradual and safe recovery of concussion in MMA fighters.

It allows the resumption of physical activities in optimal conditions while minimizing the risk of recurrence or long-term complications.

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ANNEX

SCAT-6

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.

This tool may be freely copied in its current form for distribution to individuals, teams, groups, and organizations. Any alteration (including translations and digital re-formatting), re-branding, or sale for commercial gain is not permissible without the expressed written consent of BMJ.

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™

Developed by: The Concussion in Sport Group (CISG)

Supported by:



SCAT6™

Sport Concussion Assessment Tool For Adolescents (13 years +) & Adults



Athlete Name: ID Number:

Date of Birth: Date of Examination: Date of Injury:

Time of Injury: Sex: Male Female Prefer Not To Say Other

Dominant Hand: Left Right Ambidextrous Sport/Team/School:

Current Year in School (if applicable): Years of Education Completed (Total):

First Language: Preferred Language:

Examiner:

Concussion History

How many diagnosed concussions has the athlete had in the past?:

When was the most recent concussion?:

Primary Symptoms:

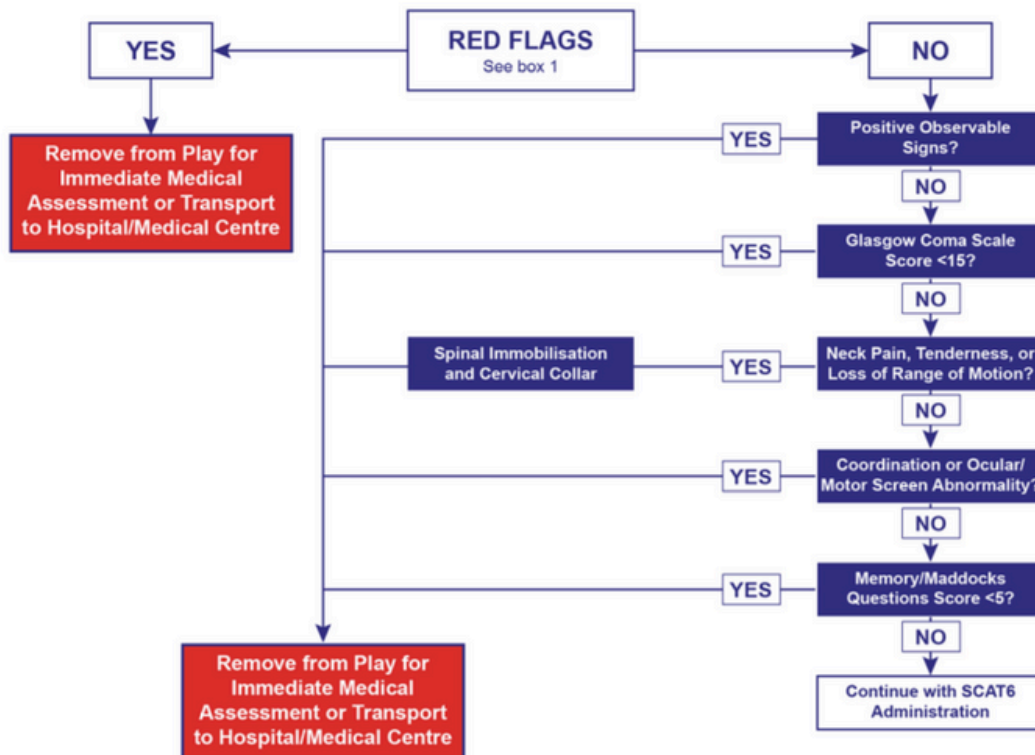
How long was the recovery (time to being cleared to play) from the most recent concussion?: (Days)

Immediate Assessment/Neuro Screen (Not Required at Baseline)

The following elements should be used in the evaluation of all athletes who are suspected of having a concussion prior to proceeding to the cognitive assessment, and ideally should be completed "on-field" after the first aid/emergency care priorities are completed.

If any of the observable signs of concussion are noted after a direct or indirect blow to the head, the athlete should be immediately and safely removed from participation and evaluated by an HCP.

The Glasgow Coma Scale is important as a standard measure for all patients and can be repeated over time to monitor deterioration of consciousness. The Maddocks questions and cervical spine exam are also critical steps of the immediate assessment.



Step 1: Observable Signs

Witnessed Observed on Video

Lying motionless on playing surface	Y	N
Falling unprotected to the surface	Y	N
Balance/gait difficulties, motor incoordination, ataxia: stumbling, slow/laboured movements	Y	N
Disorientation or confusion, staring or limited responsiveness, or an inability to respond appropriately to questions	Y	N
Blank or vacant look	Y	N
Facial injury after head trauma	Y	N
Impact seizure	Y	N
High-risk mechanism of injury (sport-dependent)	Y	N

Step 2: Glasgow Coma Scale

Typically, GCS is assessed once. Additional scoring columns are provided for monitoring over time, if needed.

Time of Assessment:

Date of Assessment:

Best Eye Response (E)			
No eye opening	1	1	1
Eye opening to pain	2	2	2
Eye opening to speech	3	3	3
Eyes opening spontaneously	4	4	4
Best Verbal Response (V)			
No verbal response	1	1	1
Incomprehensible sounds	2	2	2
Inappropriate words	3	3	3
Confused	4	4	4
Oriented	5	5	5
Best Motor Response (M)			
No motor response	1	1	1
Extension to pain	2	2	2
Abnormal flexion to pain	3	3	3
Flexion/withdrawal to pain	4	4	4
Localized to pain	5	5	5
Obeys commands	6	6	6
Glasgow Coma Score (E + V + M)			

Box 1: Red Flags

- Neck pain or tenderness
- Seizure or convulsion
- Double vision
- Loss of consciousness
- Weakness or tingling/burning in more than 1 arm or in the legs
- Deteriorating conscious state
- Vomiting
- Severe or increasing headache
- Increasingly restless, agitated or combative
- GCS <15
- Visible deformity of the skull

Step 3: Cervical Spine Assessment

In a patient who is not lucid or fully conscious, a cervical spine injury should be assumed and spinal precautions taken.

Does the athlete report neck pain at rest?	Y	N
Is there tenderness to palpation?	Y	N
If NO neck pain and NO tenderness, does the athlete have a full range of ACTIVE pain free movement?	Y	N
Are limb strength and sensation normal?	Y	N

Step 4: Coordination & Ocular/Motor Screen

Coordination: Is finger-to-nose normal for both hands with eyes open and closed?	Y	N
Ocular/Motor: Without moving their head or neck, can the patient look side-to-side and up-and-down without double vision?	Y	N
Are observed extraocular eye movements normal? If not, describe:	Y	N

Step 5: Memory Assessment Maddocks Questions¹

Say "I am going to ask you a few questions, please listen carefully and give your best effort. First, tell me what happened?"

Modified Maddocks questions (Modified appropriately for each sport; 1 point for each correct answer)

What venue are we at today?	0	1
Which half is it now?	0	1
Who scored last in this match?	0	1
What team did you play last week/game?	0	1
Did your team win the last game?	0	1
Maddocks Score		/5

Note: Appropriate sport-specific questions may be substituted

Step 3: Cognitive Screening (Based on Standardized Assessment of Concussion; SAC)²

Orientation

What month is it?	0	1
What is the date today?	0	1
What is the day of the week?	0	1
What year is it?	0	1
What time is it right now? (within 1 hour)	0	1
Orientation Score	of 5	

Immediate Memory

All 3 trials must be administered irrespective of the number correct on Trial 1. Administer at the rate of one word per second.

Trial 1: Say "I am going to test your memory. I will read you a list of words and when I am done, repeat back as many words as you can remember, in any order."

Trials 2 and 3: Say "I am going to repeat the same list. Repeat back as many words as you can remember in any order, even if you said the word before in a previous trial."

Word list used: A B C

List A				Alternate Lists	
	Trial 1	Trial 2	Trial 3	List B	List C
Jacket	0 1	0 1	0 1	Finger	Baby
Arrow	0 1	0 1	0 1	Penny	Monkey
Pepper	0 1	0 1	0 1	Blanket	Perfume
Cotton	0 1	0 1	0 1	Lemon	Sunset
Movie	0 1	0 1	0 1	Insect	Iron
Dollar	0 1	0 1	0 1	Candle	Elbow
Honey	0 1	0 1	0 1	Paper	Apple
Mirror	0 1	0 1	0 1	Sugar	Carpet
Saddle	0 1	0 1	0 1	Sandwich	Saddle
Anchor	0 1	0 1	0 1	Wagon	Bubble
Trial Total					

Immediate Memory Score of 30 **Time Last Trial Completed:** _____

Step 3: Cognitive Screening (Continued)

Concentration

Digits Backward:

Administer at the rate of one digit per second reading DOWN the selected column. If a string is completed correctly, move on to the string with next higher number of digits; if the string is completed incorrectly, use the alternate string with the same number of digits; if this is failed again, end the test.

Say *"I'm going to read a string of numbers and when I am done, you repeat them back to me in reverse order of how I read them to you. For example, if I say 7-1-9, you would say 9-1-7. So, if I said 9-6-8 you would say? (8-6-9)"*

Digit list used: A B C

List A	List B	List C				
4-9-3	5-2-6	1-4-2	Y	N	0	1
6-2-9	4-1-5	6-5-8	Y	N		
3-8-1-4	1-7-9-5	6-8-3-1	Y	N	0	1
3-2-7-9	4-9-6-8	3-4-8-1	Y	N		
6-2-9-7-1	4-8-5-2-7	4-9-1-5-3	Y	N	0	1
1-5-2-8-6	6-1-8-4-3	6-8-2-5-1	Y	N		
7-1-8-4-6-2	8-3-1-9-6-4	3-7-6-5-1-9	Y	N	0	1
5-3-9-1-4-8	7-2-4-8-5-6	9-2-6-5-1-4	Y	N		
Digits Score					of 4	

Months in Reverse Order:

Say *"Now tell me the months of the year in reverse order as QUICKLY and as accurately as possible. Start with the last month and go backward. So, you'll say December, November... go ahead"*

Start stopwatch and CIRCLE each correct response:

December November October September August July June May April March February January

Time Taken to Complete (secs):

Number of Errors:

1 point if no errors and completion under 30 seconds

Months Score: of 1

Concentration Score (Digits + Months) of 5

Step 4: Coordination and Balance Examination

Modified Balance Error Scoring System (mBESS)³ testing

(see detailed administration instructions)

Foot Tested: Left Right (i.e. test the non-dominant foot)

Testing Surface (hard floor, field, etc.):

Footwear (shoes, barefoot, braces, tape etc.):

OPTIONAL (depending on clinical presentation and setting resources): For further assessment, the same 3 stances can be performed on a surface of medium density foam (e.g., approximately 50cm x 40cm x 6cm) with the same instructions and scoring.

Step 4: Coordination and Balance Examination (Continued)

Modified BESS

(20 seconds each)

Double Leg Stance: of 10
 Tandem Stance: of 10
 Single Leg Stance: of 10
 Total Errors: of 30

On Foam (Optional)

Double Leg Stance: of 10
 Tandem Stance: of 10
 Single Leg Stance: of 10
 Total Errors: of 30

Note: If the mBESS yields normal findings then proceed to the **Tandem Gait/Dual Task Tandem Gait**.

If the mBESS reveals abnormal findings or clinically significant difficulties, **Tandem Gait** is not necessary at this time.

Both the **Tandem Gait** and optional **Dual Task** component may be administered later in the office setting as needed (see SCOAT6).

Timed Tandem Gait

Place a 3-metre-long line on the floor/firm surface with athletic tape. The task should be timed. Please complete all 3 trials.

Say *"Please walk heel-to-toe quickly to the end of the tape, turn around and come back as fast as you can without separating your feet or stepping off the line."*

Single Task:

Time to Complete Tandem Gait Walking (seconds)				
Trial 1	Trial 2	Trial 3	Average 3 Trials	Fastest Trial
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

Dual Task Gait (Optional. Timed Tandem Gait must be completed first)

Place a 3-metre-long line on the floor/firm surface with athletic tape. The task should be timed.

Say *"Now, while you are walking heel-to-toe, I will ask you to count backwards out loud by 7s. For example, if we started at 100, you would say 100, 93, 86, 79. Let's practise counting. Starting with 93, count backward by sevens until I say 'stop'."* Note that this practice only involves counting backwards.

Dual Task Practice: Circle correct responses; record number of subtraction counting errors.

Task													Errors	Time	
Practice	93	86	79	72	65	58	51	44							

Say *"Good. Now I will ask you to walk heel-to-toe and count backwards out loud at the same time. Are you ready? The number to start with is 88. Go!"*

Dual Task Cognitive Performance: Circle correct responses; record number of subtraction counting errors.

Task														Errors	Time (circle fastest)
Trial 1	88	81	74	67	60	53	46	39	32	25	18	11	4		
Trial 2	90	83	76	69	62	55	48	41	34	27	20	13	6		
Trial 3	98	91	84	77	70	63	56	49	42	35	28	21	14		

Alternate double number starting integers may be used and recorded below.

<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
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Starting Integer: Errors: Time:

Step 4: Coordination and Balance Examination (Continued)

Were any single- or dual-task, timed tandem gait trials not completed due to walking errors or other reasons?

Yes No

If yes, please explain why:

Step 5: Delayed Recall

The Delayed Recall should be performed after **at least 5 minutes** have elapsed since the end of the Immediate Memory section: **Score 1 point for each correct response.**

Say *“Do you remember that list of words I read a few times earlier? Tell me as many words from the list as you can remember in any order.”*

Time started:

Word list used: A B C

List A		Score		Alternate Lists	
				List B	List C
Jacket	0	1	Finger	Baby	
Arrow	0	1	Penny	Monkey	
Pepper	0	1	Blanket	Perfume	
Cotton	0	1	Lemon	Sunset	
Movie	0	1	Insect	Iron	
Dollar	0	1	Candle	Elbow	
Honey	0	1	Paper	Apple	
Mirror	0	1	Sugar	Carpet	
Saddle	0	1	Sandwich	Saddle	
Anchor	0	1	Wagon	Bubble	
Delayed Recall Score		of 10			

Total Cognitive Score

Orientation: of 5

Immediate Memory: of 30

Concentration: of 5

Delayed Recall: of 10

Total: of 50

If the athlete was known to you prior to their injury, are they different from their usual self?

Yes No Not applicable (If different, describe why in the [clinical notes](#) section)

Step 6: Decision

Domain	Date:	Date:	Date:
Neurological Exam (Acute Injury evaluation only)	Normal/Abnormal	Normal/Abnormal	Normal/Abnormal
Symptom number (of 22)			
Symptom Severity (of 132)			
Orientation (of 5)			
Immediate Memory (of 30)			
Concentration (of 5)			
Delayed Recall (of 10)			
Cognitive Total Score (of 50)			
mBESS Total Errors (of 30)			
Tandem Gait fastest time			
Dual Task fastest time			

Disposition

Concussion diagnosed?

Yes No Deferred

Health Care Professional Attestation

I am an HCP and I have personally administered or supervised the administration of this SCAT6.

Name:

Signature: Title/Specialty:

Registration/License number (if applicable): Date:

Additional Clinical Notes

Note: Scoring on the SCAT6 should not be used as a stand-alone method to diagnose concussion, measure recovery, or make decisions about an athlete's readiness to return to sport after concussion. Remember: An athlete can score within normal limits on the SCAT6 and still have a concussion.