SCOAT6[™]



Sport Concussion Office Assessment Tool

For Adults & Adolescents (13 years +)

What is the SCOAT6?*

The SCOAT6 is a tool for evaluating concussion in a controlled office environment by Health Care Professionals (HCP) typically from 72 hours (3 days) following a sport-related concussion.

The diagnosis of concussion is a clinical determination made by an HCP. The various components of the SCOAT6 may assist with the clinical assessment and help guide individualised management.

The SCOAT6 is used for evaluating athletes aged 13 years and older. For children aged 12 years or younger, please use the Child SCOAT6.

Brief verbal instructions for some components of the SCOAT6 are included. Detailed instructions for use of the SCOAT6 are provided in an accompanying document. Please read through these instructions carefully before using the SCOAT6.

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Completion Guide

Blue: Complete only at first assessment	Green: Recommended part of assessment	Orange: Optional part of assessment
Athlete's Name:		
Date of Birth:	Sex: Male Female Prefer No	ot To Say Other
Sport:		
Occupational or Educational Status		
Current or Highest Educational Leve	el or Qualification Achieved:	
Examiner:	Date of Examination	n:
Referring Physician's Name:		
Referring Physician's Contact Detail	s:	

* In reviewing studies informing the SCOAT6 and Child SCOAT6, the period defined for the included papers was 3–30 days. HCPs may choose to use the SCOAT6 beyond this timeframe but should be aware of the parameters of the review.

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Developed by: The Concussion in Sport Group (CISG)

Supported by:

















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Current Injury				
Removal From Play:	Immediate	Continued to play for	mins	
	Walked off	Assisted off	Stretchered off	
Date of Injury:		_	·	
Description - include m	echanism of injury, prese	entation, management since th	ne time of injury and trajec	tory of care since injury:
Date Symptoms First A	Appeared:	Date Syn	nptoms First Reported:	
History of Head I	njuries			
Data Wasan		ude mechanism of injury,	Management - includin	g time off work, school or
Date/Year		ement since the time of injury y of care since injury		port
History of Any Ne	eurological, Psycl	nological, Psychiatric	or Learning Diso	rders
Dia	gnosis	Year Diagnosed	Management Includi	ng Medication
Migraine				
Chronic headac	he			
Depression				
Anxiety				
Syncope				
Epilepsy/seizure	es			
Attention deficit activity disorder				
Learning disord	ler/ dyslexia			
Other				

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List All Current Medications - including over-the-counter, naturopathic and supplements						
Item	Dose	Frequency	Reason Taken			

Family History of Any Diagnosed Neurological, Psychological, Psychiatric, Cognitive or Developmental Disorders

Family Member	Diagnosis	Management Including Medication
	Depression	
	Anxiety	
	Attention deficit hyperactivity disorder (ADHD)	
	Learning disorder/ dyslexia	
	Migraine	
	Other	
Additional Notes:		

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Symptom Evaluation

Please rate your symptoms below based on how you feel now with "1" representing a very mild symptom and "6" representing a severe symptom.

0 1 2 3 4 5 6 None Mild Moderate Severe

		Date of Assessment						
Symptom	Pre-injury	Day injured (date)	Consult 1	Consult 2	Consult 3			
	Rating	Rating	Rating	Rating	Rating			
Headaches								
Pressure in head								
Neck pain								
Nausea or vomiting								
Dizziness								
Blurred vision								
Balance problems								
Sensitivity to light								
Sensitivity to noise								
Feeling slowed down								
Feeling like "in a fog"								
Difficulty concentrating								
Difficulty remembering								
Fatigue or low energy								
Confusion								
Drowsiness								
More emotional								
Irritability								
Sadness								
Nervous or anxious								
Sleep disturbance								
Abnormal heart rate								
Excessive sweating								
Other								

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Symptom Evaluation (Continued)

	Date of Assessment						
Symptom	Pre-injury	Day injured (date)	Consult 1	Consult 2	Consult 3		
	Rating	Rating	Rating	Rating	Rating		
Do symptoms worsen with physical activity?							
Do symptoms worsen with cognitive (thinking) activity?							
Symptom number							
Symptom severity score							
What percentage of normal do you feel?							

Verbal Cognitive Tests

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 in a monotone voice.

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 Alternate Lists								
List A	Tria	al 1	Tria	al 2	Tria	al 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 Total of 30								
Time last trial completed:								

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Verbal Co	ognitive Te	ests: Alterna	te 15-word	lists
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Alternate 15-word lists may be accessed by scanning or clicking the QR code.

Record the total below.

Total

____ of 4



Digits Backwards

Administer at the rate of one digit per second in a monotone voice 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	Υ	N	•	4
6-2-9	4-1-5	6-5-8	Υ	N	0	1
3-8-1-4	1-7-9-5	6-8-3-1	Υ	N	0	1
3-2-7-9	4-9-6-8	3-4-8-1	Υ	N	U	'
6-2-9-7-1	4-8-5-2-7	4-9-1-5-3	Υ	N	0	1
1-5-2-8-6	6-1-8-4-3	6-8-2-5-1	Υ	N	U	'
7-1-8-4-6-2	8-3-1-9-6-4	3-7-6-5-1-9	Υ	N	0	1
5-3-9-1-4-8	7-2-4-8-5-6	9-2-6-5-1-4	Υ	N	U	'
				Digits score	9	of 4

- 14	11 - 1-1	 Reverse	0.00

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): (N <30 sec) Number of Errors:

Examination

Orthostatic Vital Signs						
The first blood pressure and heart rate measurements are taken after the patient lies supine on the examination table for at least 2 minutes. The patient is then asked to stand up without support and with both feet firmly on the ground and the second measurements are taken after standing for 1 minute. Ask the patient if they experience any dizziness or light-headedness upon standing (initial orthostatic intolerance) or by one minute (orthostatic intolerance).						
Orthostatic Vital Signs	Supine	Standing (after 1 minute)				
Blood Pressure (mmHg)						
Heart Rate (bpm)						
Symptoms¹ Dizziness or light-headedness Fainting Blurred or fading vision Nausea Fatigue Lack of concentration	No Yes If yes: Description	No Yes If yes: Description				
Results Normal Abnormal Test results are deemed clinically significant if they include at least one of the following AND symptoms: (1) systolic BP drop of ≥ 20mmHg or (2) diastolic BP drop of ≥ 10mmHg (3) HR decreases (4) HR increases by > 30bpm						
Cervical Spine Assessment						

Cervical Spine Assessment					
Cervical Spine Palpation	Signs and Symptoms				
Muscle Spasm	Normal Abnormal				
Midline Tenderness	Normal Abnormal				
Paravertebral Tenderness	Normal Abnormal				
Cervical Active Range of Motion	Result				
Flexion (50-70°)	Normal Abnormal				
Extension (60-85°)	Normal Abnormal				
Right Lateral Flexion (40-50°)	Normal Abnormal				
Left Lateral Flexion (40-50°)	Normal Abnormal				
Right Rotation (60-75°)	Normal Abnormal				
Left Rotation (60-75°)	Normal Abnormal				

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Neurological Exam	nination			
Cranial Nerves				
Normal	Abnormal	Not tested		
Notes:	_	_		
Other Neurologic	al Findings			
Limb Tone:	Normal	Abnormal	Not tested	
Strength:	Normal	Abnormal	Not tested	
Deep Tendon Reflexes:	Normal	Abnormal	Not tested	
Sensation:	Normal	Abnormal	Not tested	
Cerebellar Function:	Normal	Abnormal	Not tested	
Comments:				
Balance				
Barefoot on a firm surface				
Barefoot on a firm surface		e non-dominant foot)		
Barefoot on a firm surface			oam	
Barefoot on a firm surface		e non-dominant foot) On Fo	oam Leg Stance:	of 10
Barefoot on a firm surface Foot Tested: Left Modified BESS	Right (i.e. test the	e non-dominant foot) On Fo	_	of 10 of 10
Barefoot on a firm surface Foot Tested: Left Modified BESS Double Leg Stance:	Right (i.e. test the	On Fo	Leg Stance:	12.5
Barefoot on a firm surface Foot Tested: Left Modified BESS Double Leg Stance: Tandem Stance:	Right (i.e. test the	On Fo	Leg Stance: n Stance: Leg Stance:	of 10
Barefoot on a firm surface Foot Tested: Left Modified BESS Double Leg Stance: Tandem Stance: Single Leg Stance:	of 10 of 10 of 10 of 10	On Fo	Leg Stance: n Stance: Leg Stance:	of 10 of 10
Barefoot on a firm surface Foot Tested: Left Modified BESS Double Leg Stance: Tandem Stance: Single Leg Stance: Total Errors:	Right (i.e. test the	e non-dominant foot) On Fo Double Tanden Single I	Leg Stance: n Stance: Leg Stance:	of 10 of 10
Barefoot on a firm surface Foot Tested: Left Modified BESS Double Leg Stance: Tandem Stance: Single Leg Stance: Total Errors: Timed Tandem Gai Place a 3-metre-long line	of 10 of 10 of 10 of 30 it on the floor/firm surface w	On Fo	Leg Stance: n Stance: Leg Stance: rors:	of 10 of 10 of 30
Barefoot on a firm surface Foot Tested: Left Modified BESS Double Leg Stance: Tandem Stance: Single Leg Stance: Total Errors: Timed Tandem Gai Place a 3-metre-long line	of 10 of 10 of 10 of 30 it on the floor/firm surface we-toe quickly to the end	e non-dominant foot) On Fo Double Tanden Single I	Leg Stance: n Stance: Leg Stance: rors:	of 10 of 10 of 30
Barefoot on a firm surface Foot Tested: Left Modified BESS Double Leg Stance: Tandem Stance: Single Leg Stance: Total Errors: Timed Tandem Gai Place a 3-metre-long line Say "Please walk heel-total tested in the standard of the standard	of 10 of 10 of 10 of 30 it on the floor/firm surface we stepping off the line."	On Fo	Leg Stance: n Stance: Leg Stance: rrors:	of 10 of 10 of 30
Barefoot on a firm surface Foot Tested: Left Modified BESS Double Leg Stance: Tandem Stance: Single Leg Stance: Total Errors: Timed Tandem Gai Place a 3-metre-long line Say "Please walk heel-total tested in the standard of the standard	of 10 of 10 of 10 of 30 it on the floor/firm surface we stepping off the line."	On Fo	Leg Stance: n Stance: Leg Stance: rrors:	of 10 of 10 of 30
Barefoot on a firm surface Foot Tested: Left Modified BESS Double Leg Stance: Tandem Stance: Single Leg Stance: Total Errors: Timed Tandem Gai Place a 3-metre-long line Say "Please walk heel-to separating your feet or s	of 10 of 10 of 10 of 30 it on the floor/firm surface we stepping off the line."	On Fo	Leg Stance: n Stance: Leg Stance: rrors: nd come back as fast	of 10 of 10 of 30

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Com	piex	Tanu	lem	Gail

Forward

Say "Please walk heel-to-toe quickly five steps forward, then continue forward with eyes closed for five steps" 1 point for each step off the line, 1 point for truncal sway or holding onto an object for support.

Forward Eyes Open Points:

Forward Eyes Closed Points:

Forward Total Points:

Backward

Say "Please walk heel-to-toe again, backwards five steps eyes open, then continue backwards five steps with eyes closed." 1 point for each step off the line, 1 point for truncal sway or holding onto an object for support.

Backward Eyes Open Points:

Backward Eyes Closed Points:

Backward Total Points:

Total Points (Forward + Backward):

Dual Task Gait

Say "Now, while you are walking heel-to-toe, I will ask you to recite the following words in reverse order / count backwards out loud by 7s (for instance starting at 100, then 93, 86 etc.) / recite the months of the year in reverse order"

(select one cognitive task). Allow for a verbal practice attempt of the cognitive task selected.

Cognitive Tasks								
Trial 1 (Words - spell backwards)	VISIT	ALERT	FENCE	BRAVE	MOUSE	DANCE	CRAWL	LEARN
OR Trial 2 (Subtract serial 7s)	95	88	81	74	67	60	53	46
OR Trial 3 (Months backwards)	December	November O	ctober Septe	mber August	July June	May April	March Februa	ry January

Before attempting the dual task: "Good. Now I will ask you to walk heel-to-toe calling the answers out loud at the same time. Are you ready?"

Number of Trials Attempted: Number of Correct Trials: Average Time (s):

Cognitive Accuracy Score (Number Correct / Number Attempted):

Comments:

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Modified Vestibular/Ocular-Motor Screening (mVOMS) for Concussion

For detailed instructions please see the Supplement.

mVOMS	Not Tested	Headache	Dizziness	Nausea	Fogginess	Comments
Baseline symptoms	N/A					
Smooth pursuits (2 horizontal and 2 vertical, 2 seconds to go full distance right-left and back; up-down and back)						
Saccades – Horizontal (10 times each direction)						
VOR – Horizontal (10 repetitions) (metronome set at 180 beats per minute – change direction at each beep, wait 10 secs to ask symptoms)						
VMS (x 5, 80° rotation side to side) (at 50 bpm, change direction each beep, wait 10 secs to ask symptoms)						

Anxiety Screen

Not Done

Assign scores of 0, 1, 2, and 3 to the response categories, respectively, of "not at all," "several days," "more than half the days," and "nearly every day."

Over the last 2 weeks, how often have you been bothered by any of the following problems?	Not at all	Several days	More than half the days	Nearly every day
1. Feeling nervous, anxious, or on edge	0	1	2	3
2. Not being able to stop or control worrying	0	1	2	3
3. Worrying too much about different things	0	1	2	3
4. Trouble relaxing	0	1	2	3
5. Being so restless that it's hard to sit still	0	1	2	3
6. Becoming easily annoyed or irritable	0	1	2	3
7. Feeling afraid as if something awful might happen	0	1	2	3

0-4: minimal anxiety 5-9: mild anxiety **Anxiety Screen Score:** 10-14: moderate anxiety 15-21: severe anxiety

Depression Screen

Not Done

The purpose is to screen for depression in a "first-step" approach. Patients who screen positive should be further evaluated with the PHQ-9 to determine whether they meet criteria for a depressive disorder.

Over the last 2 weeks, how often have you been bothered by any of the following problems?	Not at all	Several days	More than half the days	Nearly every day
1. Little interest or pleasure in doing things	0	1	2	3
2. Feeling down, depressed or hopeless	0	1	2	3

Depression Screen Score: (Ranges from 0-6, 3 being the cutpoint to screen for depression)

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Sleep Screen	
Not Done	
 During the past week how many hours of actual sleep did you get at night? (This may be different than the number of hours you spent in bed.) 	
5 to 6 hours	4
6 to 7 hours	3
7 to 8 hours	2
8 to 9 hours	1
More than 9 hours	0
2. How satisfied/dissatisfied were you with the quality of your sleep?	
Very dissatisfied	4
Somewhat dissatisfied	3
Somewhat satisfied	2
Satisfied	1
Very satisfied	0
3. During the recent past, how long has it usually taken you to fall asleep each night?	
Longer than 60 minutes	3
31-60 minutes	2
16-30 minutes	1
15 minutes or less	0
4. How often do you have trouble staying asleep?	
Five to seven times a week	3
Three of four times a week	2
Once or twice a week	1
Never	0
5. During the recent past, how often have you taken medicine to help you sleep? (prescribed or over-the-counter)	
Five to seven times a week	3
Three of four times a week	2
Once or twice a week	1
Never	0
Sleep Screen Score: A higher sleep disorder score (SDS) indicates a greater likelihood of a clinical sleep disorder: 0-4 (Normal) 5-7 (Mild) 8-10 (Moderate) 11-17 (Severe)	

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Delayed Word Recall Minimum of 5 minutes after immediate recall					
Say "Do you remember that list of words I remember in any order."	read a few tin	nes earlier? Tell me as many wor	ds from the list as you can		
Word list used: A B C		Alternate Lists			
List A	Score	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		
Score: of 10 Record Actual Time (mins) Since Completing Immediate Recall:					
Computerised Cognitive Test Results (if used) Not Done					
Test Battery Used:					
Recent Baseline - if performed (Date):					
Post-Injury Result (Rest):					
Post-Injury Result (Post-Exercise Stress):					
Graded Aerobic Exercise Test					
Not Done Exclude contra-indications: cardiac condition, respiratory disease, significant vestibular symptoms, motor dysfunction, lower limb injuries, cervical spine injury.					
Protocol Used:					
Overall Assessment					
Summary:					

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Management and Follow-up Plan					
Cervical or brain imaging (X-rays/CT/MRI)					
Imaging Requested:					
Reason:					
ndings:					
commendations regarding return to:					
ass:					
ork:					
iving:					
ort:					
ee revised graduated <u>return-to-learn</u> and <u>return-to-sport</u> guidelines)					
Referral rther assessment, intervention or management					
sessment by: Name:					
Athletic Trainer/Therapist					
Exercise Physiologist					
Neurologist					
Neuropsychologist					
Neurosurgeon					
Opthalmologist					
Optometrist					
Paediatrician					
Physiatrist/Rehab Phys					
Physiotherapist					
Psychologist					
Psychiatrist					
Sport and Exercise Medicine Phys					
Other					
Pharmacotherapy Prescribed:					
te of Review: Date of Follow-up:					

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Return-to-Learn (RTL) Strategy

Facilitating RTL is a vital part of the recovery process for student-athletes. HCPs should work with stakeholders on education and school policies to facilitate academic support, including accommodations/learning adjustments for students with SRC when needed. Academic support should address risk factors for greater RTL duration (e.g., social determinants of health, higher symptom burden) by adjusting environmental, physical, curricular, and testing factors as needed. Not all athletes will need a RTL strategy or academic support. If symptom exacerbation occurs during cognitive activity or screen time, or difficulties with reading, concentration, or memory or other aspects of learning are reported, clinicians should consider implementation of a RTL strategy at the time of diagnosis and during the recovery process. When the RTL strategy is implemented, it can begin following an initial period of relative rest (Step1: 24-48 hrs), with an incremental increase in cognitive load (Steps 2 to 4). Progression through the strategy is symptom limited (i.e., no more than a mild exacerbation of current symptoms related to the current concussion) and its course may vary across individuals based on tolerance and symptom resolution. Further, while the RTL and RTS strategies can occur in parallel, student-athletes should complete full RTL before unrestricted RTS

Step	Mental Activity	Activity at Each Step	Goal
1	Daily activities that do not result in more than a mild exacerbation* of symptoms related to the current concussion.	Typical activities during the day (e.g., reading) while minimizing screen time. Start with 5–15 min at a time and increase gradually.	Gradual return to typical activities.
2	School activities.	Homework, reading, or other cognitive activities outside of the classroom.	Increase tolerance to cognitive work.
3	Return to school part time.	Gradual introduction of schoolwork. May need to start with a partial school day or with greater access to rest breaks during the day.	Increase academic activities.
4	Return to school full time.	Gradually progress school activities until a full day can be tolerated without more than mild* symptom exacerbation.	Return to full academic activities and catch up on missed work.

NOTE: Following an initial period of relative rest (24-48 hours following injury at Step 1), athletes can begin a gradual and incremental increase in their cognitive load. Progression through the strategy for students should be slowed when there is more than a mild and brief symptom exacerbation.

^{*}Mild and brief exacerbation of symptoms is defined as an increase of no more than 2 points on a 0-10 point scale (with 0 representing no symptoms and 10 the worst symptoms imaginable) for less than an hour when compared with the baseline value reported prior to cognitive activity. For use by Health Care Professionals only Sports Medicine



Return-to-Sport (RTS) Strategy

Return to sport participation after an SRC follows a graduated stepwise strategy, an example of which is outlined in Table 2. RTS occurs in conjunction with return to learn (see RTL strategy) and under the supervision of a qualified HCP. Following an initial period of relative rest (Step 1: approximately 24-48 hours), clinicians can implement Step 2 [i.e., light (Step 2A) and then moderate (Step 2B) aerobic activity] of the RTS strategy as a treatment of acute concussion. The athlete may then advance to steps 3-6 on a time course dictated by symptoms, cognitive function, clinical findings, and clinical judgement. Differentiating early activity (step 1), aerobic exercise (Step 2), and individual sport-specific exercise (Step 3) as part of the treatment of SRC from the remainder of the RTS progression (Steps 4-6) can be useful for the athlete and their support network (e.g., parents, coaches, administrators, agents). Athletes may be moved into the later stages that involve risk of head impact (Steps 4-6 and Step 3 if there is any risk of head impact with sport-specific activity) of the RTS strategy following authorization by the HCP and after resolution of any new symptoms, abnormalities in cognitive function, and clinical findings related to the current concussion. Each step typically takes at least 24 hours. Clinicians and athletes can expect a minimum of 1 week to complete the full rehabilitation strategy, but typical unrestricted RTS can take up to one month post-SRC. The time frame for RTS may vary based on individual characteristics, necessitating an individualized approach to clinical management. Athletes having difficulty progressing through the RTS strategy or with symptoms and signs that are not progressively recovering beyond the first 2-4 weeks may benefit from rehabilitation and/or involvement of a multidisciplinary team of HCP experienced in managing SRC. Medical determination of readiness, including psychological readiness, to return to at-risk activities should occur prior to returning to any activities at risk of contact, collision or fall (e.g. multiplayer training drills), which may be required prior to any of steps 3-6, depending on the nature of the sport or activity that the athlete is returning to and in keeping with local laws/requirements.

St	tep	Exercise Strategy	Activity at Each Step	Goal
	1	Symptom-limited activity.	Daily activities that do not exacerbate symptoms (e.g., walking).	Gradual reintroduction of work/school.
;	2	Aerobic exercise 2A – Light (up to approx. 55% max HR) then 2B – Moderate (up to approximately 70% max HR)	Stationary cycling or walking at slow to medium pace. May start light resistance training that does not result in more than mild and brief exacerbation* of concussion symptoms.	Increase heart rate.
	3	Individual sport-specific exercise NOTE: if sport-specific exercise involves any risk of head impact, medical determination of readiness should occur prior to step 3.	Sport-specific training away from the team environment (e.g., running, change of direction and/or individual training drills away from the team environment). No activities at risk of head impact.	Add movement, change of direction.
Steps 4-6 should begin after resolution of any symptoms, abnormalities in cognitive function, and any other clinical findings related to the current concussion, including with and after physical exertion.				
	4	Non-contact training drills.	Exercise to high intensity including more challenging training drills (e.g., passing drills, multiplayer training). Can integrate into team environment.	Resume usual intensity of exercise, coordination, and increased thinking.
	5	Full contact practice.	Participate in normal training activities.	Restore confidence and assess functional skills by coaching staff.
	6	Return to sport.	Normal game play.	

maxHR = predicted maximal Heart Rate according to age (i.e., 220-age)

Age Predicted Maximal HR= 220-age	Mild Aerobic Exercise	Moderate Aerobic Exercise
55%	220-age x 0.55 = training target HR	
70%		220-age x 0.70 = training target HR

NOTE: *Mild and brief exacerbation of symptoms (i.e., an increase of no more than 2 points on a 0-10 point scale for less than an hour when compared with the baseline value reported prior to physical activity). Athletes may begin Step 1 (i.e., symptom-limited activity) within 24 hours of injury, with progression through each subsequent step typically taking a minimum of 24 hours. If more than mild exacerbation of symptoms (i.e., more than 2 points on a 0-10 scale) occurs during Steps 1 -3, the athlete should stop and attempt to exercise the next day. If an athlete experiences concussion-related symptoms during Steps 4-6, they should return to Step 3 to establish full resolution of symptoms with exertion before engaging in at-risk activities. Written determination of readiness to RTS should be provided by an HCP before unrestricted RTS as directed by local laws and/or sporting regulations.