

## Panhandle Concussion Information Form

This form is to be filled out by the head coach, assistant coach, AD, or district administrator that is in charge at the time of the incident. The parent and athletic director must be notified. This form must be taken with the student to see an approved medical professional.

Student's Name: \_\_\_\_\_

Date of Incident: \_\_\_\_\_

Location of Incident: \_\_\_\_\_

Type of Activity: \_\_\_\_\_

Describe Incident: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Name of Medical Professional: \_\_\_\_\_

Date of Visit to Medical Professional: \_\_\_\_\_

Student Seen is:

- Approved to continue class and athletic competition
- Approved to only return to class, NOT athletic competition
- Not approved at this time to return to class or athletic competition

Reason: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Further Instructions: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Signature of Medical Professional: \_\_\_\_\_

**Please return this form to the athletic director or building administration**

### Head Injury/Concussion Management: Step-by-Step Progression

Athlete Name:

Current Sport:

Evaluation Date:

Date to begin Progression:

The athlete has been evaluated and deemed safe to begin functional progression back to sport.

Athlete may begin step 1 on the date outlined above.

Athlete should remain at a level of activity as listed provided no symptoms return.

If symptoms return, discontinue activity immediately. Stage must be repeated after 24 hours of no symptoms.

Level of Activity	Date to Begin
<b>Stage 1: Light Activity</b> 30% - 40% Exertion 5-10 minutes on exercise bike or light jog; no weight lifting, resistance training	
<b>Stage 2: Moderate Activity</b> 40% - 60% Exertion 15-20 minutes of running at moderate intensity in the gym or on the field	
<b>Stage 3: Moderate Activity</b> 60%-80% Exertion 25-30 minutes non-contact drills, may begin weight lifting, resistance training and other exercises	
<b>Stage 4: Sports Performance Training</b> 80% Exertion full practice or training, aggressive strength exercises/lifting, sprinting with directional changes	
<b>Stage 5: Return to Full game play</b>	

Once the athlete has completed the above stages fully without return of symptoms, he/she is considered cleared to return to full competition.

Coach Signature: \_\_\_\_\_

Athlete: \_\_\_\_\_

Date: \_\_\_\_\_

**Concussion Definition and Symptoms**

A concussion is a brain injury and all brain injuries are serious. They are caused by a bump, blow, or jolt to the head, or by a blow to another part of the body with the force transmitted to the head. They can range from mild to severe and can disrupt the way the brain normally works. Even though most concussions are mild, **all concussions are potentially serious and may result in complications including prolonged brain damage and death if not recognized and managed properly.** Signs and symptoms of concussion may show up right after the injury or can take hours or days to fully appear. If your child reports any symptoms of concussion, or if you notice the symptoms or signs of concussion yourself, seek medical attention right away.

Symptoms may include one or more of the following:	
Headaches "Pressure in head" Nausea or vomiting Neck pain Balance problems or dizziness Blurred, double, or fuzzy vision Sensitivity to light or noise Feeling sluggish or slowed down Feeling Foggy or groggy Drowsiness Change in sleep patterns	Amnesia "Don't feel right" Fatigue or low energy Sadness Nervousness or anxiety Irritability More emotional Confusion Concentration or memory problems Repeating the same question/comment

Signs observed by teammates, parents, and coaches include:	
Appears dazed Vacant facial expression Confused about assignment Forgets plays Is unsure of game, score, or opponent Moves clumsily or displays incoordination Answers questions slowly	Slurred speech Shows behavior or personality changes Can't recall events prior to hit Can't recall events after hit Seizures or convulsions Any change in typical behavior or personality Loses consciousness

**Concussion Protocol**

- I. Any athlete who exhibits signs, symptoms, or behaviors consistent with a concussion shall not return to play until cleared by an appropriate health care professional.
- II. Athletes showing signs of a concussion will be administered sideline concussion checklist test to determine athletes' condition. Test will be administered by coach, assistant coach, athletic director, district administrator, or athletic trainer.
- III. If it is confirmed by the school's approved health care professional (athletic trainer) that the student did not sustain a concussion, the head coach may so advise the officials during an

appropriate stoppage of play and the athlete may re-enter competition pursuant to the contest rules.

- IV. If an athlete cannot be cleared to return to play by a school-approved health care professional as defined in this protocol, that athlete may not be returned to competition that day.
- V. In cases when an athlete is not cleared to return to play the same day as he/she is removed from a contest following a possible head injury, the athlete shall not return to play or practice until the athlete is evaluated by and receives written clearance from a licensed health care provider to return to play.
  - a. For the purposes of this policy, licensed health care providers consist of physicians licensed to practice medicine in all its branches in Illinois and certified athletic trainers working in conjunction with physicians licensed to practice medicine in all its branches in Illinois.
- VI. Upon visiting a licensed physician athletes must have a completed (by coach, AD, or district administrator) Panhandle Concussion Information Form regarding the accident that caused the injury. This form is to be completed by the licensed physician and returned to athletic director or district administrator.
- VII. It will be the responsibility of the coach or assistant coach to notify student athletes parent regarding injury (if not present when injury occurs) and athletic director. The athletic director will notify district nurse, administration, and IHSA/IESA as needed.

### **Cognitive Rest**

A concussion can interfere with school work, sleep, and social interactions. Many athletes who have a concussion will have difficulty in school with short and long-term memory, concentration, and organization. These problems typically last no longer than 2-3 weeks, but for some these difficulties may last for months. It is best to lessen the student class load early on after the injury. Most students with concussion recover fully. However, returning to sports and other regular activities too quickly can prolong the recovery.

The first step in recovering from a concussion is rest. Rest is essential to help the brain heal. Students with a concussion need rest from physical and mental activities that require concentration and attention as these activities may worsen symptoms and delay recovery. Exposure to loud noises, bright lights, computers, video games, television, and phones (including texting) all may worsen the symptoms of concussion. As the symptoms lessen, increased use of computers, phone, video game, ect., may be allowed as well as a gradual progression back to full academic work.

## **Return to Learn**

In many cases, it is best to lessen the student's class load early on after the injury. This may include staying home from school for a few days, followed by a lightened schedule for a few days, or longer, if necessary. Decreasing the stress on the brain early on after a concussion may lessen symptoms and shorten the recovery time.

## **Return to Play**

After suffering a concussion, no athlete should return to play or practice on that same day. Once an athlete no longer has signs, symptoms, or behaviors of a concussion and is cleared to return to activity by an appropriate health-care professional, he or she should proceed in a step-wise fashion to allow the brain to re-adjust to exercise. In most cases, the athlete will progress one step each day. The return to activity program schedule may proceed as below, following medical clearance:

### **Progressive Physical Activity Program**

Step 1: Light aerobic exercise – 5- 10 minutes on an exercise bike or light jog; no weight lifting, resistance training or any other exercise.

Step 2: Moderate aerobic exercise – 15-20 minutes of running moderate intensity in the gym or on the field.

Step 3: Non-contact training drills, may begin weight lifting, resistance training, and other exercise.

Step 4: Full contact practice or training.

Step 5 : Full game play.

# SCAT3™



FIFA®



FEI

## Sport Concussion Assessment Tool – 3rd Edition

For use by medical professionals only

Name \_\_\_\_\_

Date/Time of Injury:  
Date of Assessment: \_\_\_\_\_

Examiner: \_\_\_\_\_

### What is the SCAT3?<sup>1</sup>

The SCAT3 is a standardized tool for evaluating injured athletes for concussion and can be used in athletes aged from 13 years and older. It supersedes the original SCAT and the SCAT2 published in 2005 and 2009, respectively<sup>2</sup>. For younger persons, ages 12 and under, please use the Child SCAT3. The SCAT3 is designed for use by medical professionals. If you are not qualified, please use the Sport Concussion Recognition Tool<sup>1</sup>. Preseason baseline testing with the SCAT3 can be helpful for interpreting post-injury test scores.

Specific instructions for use of the SCAT3 are provided on page 3. If you are not familiar with the SCAT3, please read through these instructions carefully. This tool may be freely copied in its current form for distribution to individuals, teams, groups and organizations. Any revision or any reproduction in a digital form requires approval by the Concussion in Sport Group.

**NOTE:** The diagnosis of a concussion is a clinical judgment, ideally made by a medical professional. The SCAT3 should not be used solely to make, or exclude, the diagnosis of concussion in the absence of clinical judgement. An athlete may have a concussion even if their SCAT3 is "normal".

### What is a concussion?

A concussion is a disturbance in brain function caused by a direct or indirect force to the head. It results in a variety of non-specific signs and/or symptoms (some examples listed below) and most often does not involve loss of consciousness. Concussion should be suspected in the presence of **any one or more** of the following:

- Symptoms (e.g., headache), or
- Physical signs (e.g., unsteadiness), or
- Impaired brain function (e.g. confusion) or
- Abnormal behaviour (e.g., change in personality).

## SIDELINE ASSESSMENT

### Indications for Emergency Management

**NOTE:** A hit to the head can sometimes be associated with a more serious brain injury. Any of the following warrants consideration of activating emergency procedures and urgent transportation to the nearest hospital:

- Glasgow Coma score less than 15
- Deteriorating mental status
- Potential spinal injury
- Progressive, worsening symptoms or new neurologic signs

### Potential signs of concussion?

If any of the following signs are observed after a direct or indirect blow to the head, the athlete should stop participation, be evaluated by a medical professional and **should not be permitted to return to sport the same day** if a concussion is suspected.

- Any loss of consciousness?  Y  N  
 "If so, how long?" \_\_\_\_\_
- Balance or motor incoordination (stumbles, slow/laboured movements, etc.)?  Y  N
- Disorientation or confusion (inability to respond appropriately to questions)?  Y  N
- Loss of memory:  
 "If so, how long?" \_\_\_\_\_  
 "Before or after the injury?" \_\_\_\_\_
- Blank or vacant look:  Y  N
- Visible facial injury in combination with any of the above:  Y  N

### 1 Glasgow coma scale (GCS)

<b>Best eye response (E)</b>	
No eye opening	1
Eye opening in response to pain	2
Eye opening to speech	3
Eyes opening spontaneously	4
<b>Best verbal response (V)</b>	
No verbal response	1
Incomprehensible sounds	2
Inappropriate words	3
Confused	4
Oriented	5
<b>Best motor response (M)</b>	
No motor response	1
Extension to pain	2
Abnormal flexion to pain	3
Flexion/Withdrawal to pain	4
Localizes to pain	5
Obeys commands	6
<b>Glasgow Coma score (E + V + M)</b>	<b>0-15</b>

GCS should be recorded for all athletes in case of subsequent deterioration.

### 2 Maddocks Score<sup>3</sup>

"I am going to ask you a few questions, please listen carefully and give your best effort."

Modified Maddocks questions (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
<b>Maddocks score</b>	<b>0-5</b>	

Maddocks score is validated for sideline diagnosis of concussion only and is not used for serial testing.

**Notes:** Mechanism of Injury ("tell me what happened"?):

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

**Any athlete with a suspected concussion should be REMOVED FROM PLAY, medically assessed, monitored for deterioration (i.e., should not be left alone) and should not drive a motor vehicle until cleared to do so by a medical professional. No athlete diagnosed with concussion should be returned to sports participation on the day of injury.**

# BACKGROUND

Name: \_\_\_\_\_ Date: \_\_\_\_\_  
 Examiner: \_\_\_\_\_  
 Sport/team/school: \_\_\_\_\_ Date/time of injury: \_\_\_\_\_  
 Age: \_\_\_\_\_ Gender:  M  F  
 Years of education completed: \_\_\_\_\_  
 Dominant hand:  right  left  neither  
 How many concussions do you think you have had in the past? \_\_\_\_\_  
 When was the most recent concussion? \_\_\_\_\_  
 How long was your recovery from the most recent concussion? \_\_\_\_\_  
 Have you ever been hospitalized or had medical imaging done for a head injury?  Y  N  
 Have you ever been diagnosed with headaches or migraines?  Y  N  
 Do you have a learning disability, dyslexia, ADD/ADHD?  Y  N  
 Have you ever been diagnosed with depression, anxiety or other psychiatric disorder?  Y  N  
 Has anyone in your family ever been diagnosed with any of these problems?  Y  N  
 Are you on any medications? If yes, please list:  Y  N

SCAT3 to be done in resting state. Best done 10 or more minutes post exercise.

# SYMPTOM EVALUATION

**3 How do you feel?**  
*"You should score yourself on the following symptoms, based on how you feel now".*

	none	mild	moderate	severe			
Headache	0	1	2	3	4	5	6
"Pressure in head"	0	1	2	3	4	5	6
Neck Pain	0	1	2	3	4	5	6
Nausea or vomiting	0	1	2	3	4	5	6
Dizziness	0	1	2	3	4	5	6
Blurred vision	0	1	2	3	4	5	6
Balance problems	0	1	2	3	4	5	6
Sensitivity to light	0	1	2	3	4	5	6
Sensitivity to noise	0	1	2	3	4	5	6
Feeling slowed down	0	1	2	3	4	5	6
Feeling like "in a fog"	0	1	2	3	4	5	6
"Don't feel right"	0	1	2	3	4	5	6
Difficulty concentrating	0	1	2	3	4	5	6
Difficulty remembering	0	1	2	3	4	5	6
Fatigue or low energy	0	1	2	3	4	5	6
Confusion	0	1	2	3	4	5	6
Drowsiness	0	1	2	3	4	5	6
Trouble falling asleep	0	1	2	3	4	5	6
More emotional	0	1	2	3	4	5	6
Irritability	0	1	2	3	4	5	6
Sadness	0	1	2	3	4	5	6
Nervous or Anxious	0	1	2	3	4	5	6

**Total number of symptoms** (Maximum possible 22) \_\_\_\_\_  
**Symptom severity score** (Maximum possible 132) \_\_\_\_\_

Do the symptoms get worse with physical activity?  Y  N  
 Do the symptoms get worse with mental activity?  Y  N

self rated  self rated and clinician monitored  
 clinician interview  self rated with parent input

**Overall rating:** If you know the athlete well prior to the injury, how different is the athlete acting compared to his/her usual self?  
 Please circle one response:  
 no different  very different  unsure  N/A

Scoring on the SCAT3 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 competition after concussion. Since signs and symptoms may evolve over time, it is important to consider repeat evaluation in the acute assessment of concussion.

# COGNITIVE & PHYSICAL EVALUATION

**4 Cognitive assessment**  
**Standardized Assessment of Concussion (SAC)<sup>4</sup>**

**Orientation** (1 point for each correct answer)

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**

	Trial 1	Trial 2	Trial 3	Alternative word list					
elbow	0	1	0	1	0	1	candle	baby	finger
apple	0	1	0	1	0	1	paper	monkey	penny
carpet	0	1	0	1	0	1	sugar	perfume	blanket
saddle	0	1	0	1	0	1	sandwich	sunset	lemon
bubble	0	1	0	1	0	1	wagon	iron	insect

**Total** \_\_\_\_\_

**Immediate memory score total** \_\_\_\_\_ of 15

**Concentration: Digits Backward**

Test	Trial 1	Trial 2	Alternative digit list		
4-9-3	0	1	6-2-9	5-2-6	4-1-5
3-8-1-4	0	1	3-2-7-9	1-7-9-5	4-9-6-8
6-2-9-7-1	0	1	1-5-2-8-6	3-8-5-2-7	6-1-8-4-3
7-1-8-4-6-2	0	1	5-3-9-1-4-8	8-3-1-9-6-4	7-2-4-8-5-6

**Total of 4** \_\_\_\_\_

**Concentration: Month in Reverse Order** (1 pt. for entire sequence correct)  
 Dec-Nov-Oct-Sept-Aug-Jul-Jun-May-Apr-Mar-Feb-Jan \_\_\_\_\_ 0 \_\_\_\_\_ 1

**Concentration score** \_\_\_\_\_ of 5

**5 Neck Examination:**

Range of motion      Tenderness      Upper and lower limb sensation & strength

**Findings:** \_\_\_\_\_

**6 Balance examination**

Do one or both of the following tests.  
 Footwear (shoes, barefoot, braces, tape, etc.) \_\_\_\_\_

**Modified Balance Error Scoring System (BESS) testing<sup>5</sup>**

Which foot was tested (i.e. which is the non-dominant foot)  Left  Right  
 Testing surface (hard floor, field, etc.) \_\_\_\_\_

**Condition**

Double leg stance: \_\_\_\_\_ Errors: \_\_\_\_\_  
 Single leg stance (non-dominant foot): \_\_\_\_\_ Errors: \_\_\_\_\_  
 Tandem stance (non-dominant foot at back): \_\_\_\_\_ Errors: \_\_\_\_\_

**And/Or**

**Tandem gait<sup>6,7</sup>**  
 Time (best of 4 trials): \_\_\_\_\_ seconds

**7 Coordination examination**  
**Upper limb coordination**

Which arm was tested:  Left  Right

**Coordination score** \_\_\_\_\_ of 1

**8 SAC Delayed Recall<sup>4</sup>**

**Delayed recall score** \_\_\_\_\_ of 5

# INSTRUCTIONS

Words in *italics* throughout the SCAT3 are the instructions given to the athlete by the tester.

## Symptom Scale

*"You should score yourself on the following symptoms, based on how you feel now".*

To be completed by the athlete. In situations where the symptom scale is being completed after exercise, it should still be done in a resting state, at least 10 minutes post exercise.

For total number of symptoms, maximum possible is 22.

For Symptom severity score, add all scores in table, maximum possible is 22x6 = 132.

## SAC<sup>4</sup>

### Immediate Memory

*"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 & 3:

*"I am going to repeat the same list again. Repeat back as many words as you can remember in any order, even if you said the word before."*

Complete all 3 trials regardless of score on trial 1 & 2. Read the words at a rate of one per second. Score 1 pt. for each correct response. Total score equals sum across all 3 trials. Do not inform the athlete that delayed recall will be tested.

### Concentration Digits backward

*"I am going to read you a string of numbers and when I am done, you repeat them back to me backwards, in reverse order of how I read them to you. For example, if I say 7-1-9, you would say 9-1-7."*

If correct, go to next string length. If incorrect, read trial 2. One point possible for each string length. Stop after incorrect on both trials. The digits should be read at the rate of one per second.

### Months in reverse order

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

1 pt. for entire sequence correct

### Delayed Recall

The delayed recall should be performed after completion of the Balance and Coordination Examination.

*"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."*

Score 1 pt. for each correct response

## Balance Examination

### Modified Balance Error Scoring System (BESS) testing<sup>5</sup>

This balance testing is based on a modified version of the Balance Error Scoring System (BESS)<sup>5</sup>. A stopwatch or watch with a second hand is required for this testing.

*"I am now going to test your balance. Please take your shoes off, roll up your pant legs above ankle (if applicable), and remove any ankle taping (if applicable). This test will consist of three twenty second tests with different stances."*

#### (a) Double leg stance:

*"The first stance is standing with your feet together with your hands on your hips and with your eyes closed. You should try to maintain stability in that position for 20 seconds. I will be counting the number of times you move out of this position. I will start timing when you are set and have closed your eyes."*

#### (b) Single leg stance:

*"If you were to kick a ball, which foot would you use? [This will be the dominant foot] Now stand on your non-dominant foot. The dominant leg should be held in approximately 30 degrees of hip flexion and 45 degrees of knee flexion. Again, you should try to maintain stability for 20 seconds with your hands on your hips and your eyes closed. I will be counting the number of times you move out of this position. If you stumble out of this position, open your eyes and return to the start position and continue balancing. I will start timing when you are set and have closed your eyes."*

#### (c) Tandem stance:

*"Now stand heel-to-toe with your non-dominant foot in back. Your weight should be evenly distributed across both feet. Again, you should try to maintain stability for 20 seconds with your hands on your hips and your eyes closed. I will be counting the number of times you move out of this position. If you stumble out of this position, open your eyes and return to the start position and continue balancing. I will start timing when you are set and have closed your eyes."*

### Balance testing – types of errors

1. Hands lifted off iliac crest
2. Opening eyes
3. Step, stumble, or fall
4. Moving hip into > 30 degrees abduction
5. Lifting forefoot or heel
6. Remaining out of test position > 5 sec

Each of the 20-second trials is scored by counting the errors, or deviations from the proper stance, accumulated by the athlete. The examiner will begin counting errors only after the individual has assumed the proper start position. **The modified BESS is calculated by adding one error point for each error during the three 20-second tests. The maximum total number of errors for any single condition is 10.** If a athlete commits multiple errors simultaneously, only one error is recorded but the athlete should quickly return to the testing position, and counting should resume once subject is set. Subjects that are unable to maintain the testing procedure for a minimum of **five seconds** at the start are assigned the highest possible score, ten, for that testing condition.

**OPTION:** For further assessment, the same 3 stances can be performed on a surface of medium density foam (e.g., approximately 50 cm x 40 cm x 6 cm).

### Tandem Gait<sup>6,7</sup>

*Participants are instructed to stand with their feet together behind a starting line (the test is best done with footwear removed). Then, they walk in a forward direction as quickly and as accurately as possible along a 38mm wide (sports tape), 3 meter line with an alternate foot heel-to-toe gait ensuring that they approximate their heel and toe on each step. Once they cross the end of the 3m line, they turn 180 degrees and return to the starting point using the same gait. A total of 4 trials are done and the best time is retained. Athletes should complete the test in 14 seconds. Athletes fail the test if they step off the line, have a separation between their heel and toe, or if they touch or grab the examiner or an object. In this case, the time is not recorded and the trial repeated, if appropriate.*

## Coordination Examination

### Upper limb coordination

Finger-to-nose (FTN) task:

*"I am going to test your coordination now. Please sit comfortably on the chair with your eyes open and your arm (either right or left) outstretched (shoulder flexed to 90 degrees and elbow and fingers extended), pointing in front of you. When I give a start signal, I would like you to perform five successive finger to nose repetitions using your index finger to touch the tip of the nose, and then return to the starting position, as quickly and as accurately as possible."*

Scoring: 5 correct repetitions in < 4 seconds = 1

Note for testers: Athletes fail the test if they do not touch their nose, do not fully extend their elbow or do not perform five repetitions. Failure should be scored as 0.

## References & Footnotes

1. This tool has been developed by a group of international experts at the 4th International Consensus meeting on Concussion in Sport held in Zurich, Switzerland in November 2012. The full details of the conference outcomes and the authors of the tool are published in The BJSM Injury Prevention and Health Protection, 2013, Volume 47, Issue 5. The outcome paper will also be simultaneously co-published in other leading biomedical journals with the copyright held by the Concussion in Sport Group, to allow unrestricted distribution, providing no alterations are made.
2. McCrory P et al., Consensus Statement on Concussion in Sport – the 3rd International Conference on Concussion in Sport held in Zurich, November 2008. British Journal of Sports Medicine 2009; 43: 176–89.
3. Maddocks, DL; Dicker, GD; Saling, MM. The assessment of orientation following concussion in athletes. Clinical Journal of Sport Medicine. 1995; 5(1): 32–3.
4. McCrea M. Standardized mental status testing of acute concussion. Clinical Journal of Sport Medicine. 2001; 11: 176–181.
5. Guskiewicz KM. Assessment of postural stability following sport-related concussion. Current Sports Medicine Reports. 2003; 2: 24–30.
6. Schneiders, A.G., Sullivan, S.J., Gray, A., Hammond-Tooke, G, & McCrory, P. Normative values for 16–37 year old subjects for three clinical measures of motor performance used in the assessment of sports concussions. Journal of Science and Medicine in Sport. 2010; 13(2): 196–201.
7. Schneiders, A.G., Sullivan, S.J., Kvarnstrom, J.K., Olsson, M., Yden, T. & Marshall, S.W. The effect of footwear and sports-surface on dynamic neurological screening in sport-related concussion. Journal of Science and Medicine in Sport. 2010; 13(4): 382–386



# ATHLETE INFORMATION

Any athlete suspected of having a concussion should be removed from play, and then seek medical evaluation.

## Signs to watch for

Problems could arise over the first 24–48 hours. The athlete should not be left alone and must go to a hospital at once if they:

- Have a headache that gets worse
- Are very drowsy or can't be awakened
- Can't recognize people or places
- Have repeated vomiting
- Behave unusually or seem confused; are very irritable
- Have seizures (arms and legs jerk uncontrollably)
- Have weak or numb arms or legs
- Are unsteady on their feet; have slurred speech

Remember, it is better to be safe.

Consult your doctor after a suspected concussion.

## Return to play

Athletes should not be returned to play the same day of injury. When returning athletes to play, they should be **medically cleared and then follow a stepwise supervised program**, with stages of progression.

For example:

Rehabilitation stage	Functional exercise at each stage of rehabilitation	Objective of each stage
No activity	Physical and cognitive rest	Recovery
Light aerobic exercise	Walking, swimming or stationary cycling keeping intensity, 70% maximum predicted heart rate. No resistance training	Increase heart rate
Sport-specific exercise	Skating drills in ice hockey, running drills in soccer. No head impact activities	Add movement
Non-contact training drills	Progression to more complex training drills, eg passing drills in football and ice hockey. May start progressive resistance training	Exercise, coordination, and cognitive load
Full contact practice	Following medical clearance participate in normal training activities	Restore confidence and assess functional skills by coaching staff
Return to play	Normal game play	

There should be at least 24 hours (or longer) for each stage and if symptoms recur the athlete should rest until they resolve once again and then resume the program at the previous asymptomatic stage. Resistance training should only be added in the later stages.

If the athlete is symptomatic for more than 10 days, then consultation by a medical practitioner who is expert in the management of concussion, is recommended.

Medical clearance should be given before return to play.

## Scoring Summary:

Test Domain	Score
	Date: _____ Date: _____ Date: _____
Number of Symptoms of 22	
Symptom Severity Score of 132	
Orientation of 5	
Immediate Memory of 15	
Concentration of 5	
Delayed Recall of 5	
<b>SAC Total</b>	
BESS (total errors)	
Tandem Gait (seconds)	
Coordination of 1	

## Notes:

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## CONCUSSION INJURY ADVICE

(To be given to the **person monitoring** the concussed athlete)

This patient has received an injury to the head. A careful medical examination has been carried out and no sign of any serious complications has been found. Recovery time is variable across individuals and the patient will need monitoring for a further period by a responsible adult. Your treating physician will provide guidance as to this timeframe.

**If you notice any change in behaviour, vomiting, dizziness, worsening headache, double vision or excessive drowsiness, please contact your doctor or the nearest hospital emergency department immediately.**

### Other important points:

- Rest (physically and mentally), including training or playing sports until symptoms resolve and you are medically cleared
- No alcohol
- No prescription or non-prescription drugs without medical supervision.  
Specifically:
  - No sleeping tablets
  - Do not use aspirin, anti-inflammatory medication or sedating pain killers
- Do not drive until medically cleared
- Do not train or play sport until medically cleared

Clinic phone number

\_\_\_\_\_

Patient's name \_\_\_\_\_

Date/time of injury \_\_\_\_\_

Date/time of medical review \_\_\_\_\_

Treating physician \_\_\_\_\_

Contact details or stamp



Updated information and services can be found at:  
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**Notes**

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