SIGNS AND SYMPTOMS

Contrary to popular belief, most (over 90%) concussions occur without a loss of consciousness and so it is important to recognise the other signs and symptoms. Concussion must be recognised as an evolving injury in the acute stage. Some symptoms may develop immediately while other symptoms may appear gradually over time. Monitoring of players - minutes, hours and days - after the injury is therefore an important aspect of concussion management.

DIAGNOSIS OF ACUTE CONCUSSION SHOULD INVOLVE THE FOLLOWING:

1. Player's subjective report of his/her symptoms.
2. Observation of the player for physical signs of concussion.
3. Assessment of the player for cognitive change or decline.
4. Observation of players for behavioural change.
5. Players report of any sleep disturbance.

CONCUSSION ASSESSMENT DOMAINS

INDICATORS	WHAT YOU WOULD EXPECT TO SEE
Symptoms	Headaches* Dizziness 'Feeling in a fog.' Fatigue Sensitivity to light or noise
Physical Signs	Loss of consciousness Vomiting Vacant Facial Expression Clutching Head Balance Disturbance (ataxia / unsteadiness) Motor In coordination Slurred speech
Cognitive Impairment	Loss short term memory Difficulty with concentration Decreased attention Diminished work performance
Behavioural Changes	Irritability Anger Mood Swings Feeling Nervous Anxious Sadness or Depression Withdrawal
Sleep Disturbance	Drowsiness Difficulty Falling Asleep

**Most common symptom*

Pitch Assessment / Initial Management of a Concussion Injury*

- Knowledge of a player's history (has the player suffered a concussion previously?), visualizing the impact and performing an examination in the first 3 minutes may provide invaluable information

- The player should be assessed by a doctor on the field using standard emergency management principles. Particular attention should be given to excluding a cervical spine injury.

- If no doctor is present, the player should be assessed by a registered healthcare practitioner (Physiotherapist/ Nurse) on the field using standard emergency management principles. Particular attention should be given to excluding a cervical spine injury.

- If no healthcare practitioner is available the player should be removed from practice or play and urgent referral to a doctor is required. If there is a possibility of a potential neck or cervical spine injury the player should not be moved and an ambulance called immediately.

- While the diagnosis of concussion is a clinical judgement, made by a doctor on an individual basis, there are red flags that mandate the urgent removal of a player to urgent medical attention/request for an ambulance:

    - **Prolonged Loss of consciousness**
    - **Deteriorating conscious state**
    - **Convulsions or tonic posturing**
    - **Increasingly restless, agitated or combative**
    - **Vomiting**
    - **Double Vision**
    - **Disorientation/Confusion**
    - **Severe or increasing headache**
    - **Abnormalities of balance, gait or coordination**
    - **Slurred or incoherent speech**
    - **Weakness or tingling/burning in arms or legs**

If there is a possibility of a potential neck or cervical spine injury the player should not be moved and an ambulance called immediately.

- Once the above first aid issues are addressed, an assessment of the concussive injury should include clinical judgement and the use of the SCAT 5

- The player should NOT be left alone for 24 hours following the injury. The player should not drive, take alcohol or any medication unless prescribed by a doctor. Regular observation for deterioration is essential over the initial 24 hours following injury.

* *There is a need to recognise that the appearance of symptoms might be delayed several hours following a concussive episode. For example, there may be no forgetfulness (retrograde amnesia) present at 0 mins post injury, yet forgetfulness (amnesia) may be present at 10 mins post injury.*

* *Orientation tests (i.e. name, place, and person) have been shown to be an unreliable cognitive function test in the sporting situation.*