and

UPMC Beacon Hospital

present

Concussion Guidelines in the GAA

2013 – 2016

LGFA
LADIES GAELIC FOOTBALL

Adopted by LGFA

Date: _____

Amended – January 2015

Table of Contents

Summary Principles

- Concussion is a brain injury that needs to be taken seriously to protect the long term welfare of all players.
- Any player suspected of having sustained a concussion, should be removed immediately from the field and should not return to play on the same day.
- Where a Team Doctor is present, he must advise the person in charge of the team (i.e. Team Manager) in this regard and the player must not be allowed to continue his participation in the game.
- Concussion is an evolving injury. It is important to monitor the player after the injury for progressive deterioration.
- Concussion diagnosis is a clinical judgement – Use of the SCAT 3 can aid the doctor in his /her diagnosis.
- Players suspected of having a concussion, must have adequate rest of at least 24 hours and then must follow a gradual return to play (GRTP) protocol.
- All female players must have a two week rest period and then must follow a GRTP protocol
- Players must receive medical clearance (by a doctor) before returning to play.

What is Concussion?

Concussion is a brain injury and can be caused by a direct or indirect hit to the player's head or body. Concussion typically results in an immediate onset of short lived signs and symptoms. However in some cases, the signs and symptoms of concussion may evolve over a number of minutes or hours.

CONCUSSION MUST BE TAKEN EXTREMELY SERIOUSLY

Signs and Symptoms

Contrary to popular belief, most concussion injuries occur without a loss of consciousness and so it is important to recognise the other signs and symptoms of concussion. Concussion must be recognised as an evolving injury in the acute stage. Some symptoms develop immediately while other symptoms may appear gradually over time. Monitoring of players 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.

Indicators	What you Would Expect to See
Symptoms	Headaches* Dizziness 'Feeling in a fog'
Physical Signs	Loss of consciousness Vomiting Vacant Facial Expression Clutching Head Motor In coordination
Cognitive Impairment	Loss short term memory Difficulty with concentration Decreased attention Diminished work performance
Behavioural Changes	Irritability Anger Mood Swings Feeling Nervous Anxious
Sleep Disturbance	Drowsiness Difficulty Falling Asleep

**Most common symptom*

Table 1 Concussion assessment domains

Pitch Assessment of a Concussion Injury

- The player should be assessed by a doctor or 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.
- Once the first aid issues are addressed, an assessment of the concussive injury should include clinical judgement and the use of the **SCAT 3**
- The player should NOT be left alone following the injury and regular observation for deterioration is essential over the initial few hours following injury.
- Following a concussion diagnosis the player should not be left alone for 24 HOURS and should have regular observation.

*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.

Return to Play

A player with a diagnosed concussion should **NEVER** be allowed to return to play on the day of injury. In addition, return to play must follow a medically supervised stepwise approach and a player **MUST NEVER** return to play while symptomatic

The most important aspect of concussion management is physical and cognitive rest until the acute symptoms resolve and then a graded program of exertion prior to medical clearance and return to play (RTP).

1. There should be an initial period of 24-48 hours rest for adult players post a concussive injury.
2. There should be a two week rest period for all female players
3. RTP protocols following concussion follow a stepwise approach. With this stepwise progression, the players should continue to proceed to the next level if asymptomatic at the current level.
4. Generally each step should take 24 hours so that the athlete would take approximately one week to proceed to full rehabilitation once they are asymptomatic at rest.
5. If any post-concussion symptoms occur while in the RTP program, then the player should drop back to the previous asymptomatic level and try to progress again after a further 24 hours period of rest has passed.

Medical clearance (medical clearance refers to medical doctors) is required prior to return to full contact sports.

Rehabilitation Stage	Functional exercise at each stage of Rehabilitation	Objective of each stage
1. No Activity	Physical and Cognitive Rest	Recovery
2. Light Activity	Walking, swimming, cycling, keeping intensity <70% maximum permitted heart rate	Increase HR
3. Sports Specific Exercise	Running drills,	Add Movement
4. No Contact Training	Progress to more complex	

	Drills	training drills - passing drills, progressive resistance training	
5.	Full Contact Practice	Following medical clearance, participate in normal training activities.	Exercise, coordination and cognitive load
6.	Return to play	Normal game play	Restore confidence and assess functional skills by coaching staff

Table 2 Gradual Return to Play Protocol

A range of 'modifying' factors may influence that investigation and management of concussion and, in some cases, may predict the potential for prolonged or persistent symptoms. Examples of modifiers would be children and adolescents under the age of 18 or players with previous concussions. Medical personnel should be mindful of these modifiers when managing a player's concussive injury.

FACTORS	MODIFIERS
Symptoms	• Number • Duration (>10 days) • Severity
Signs	• Prolonged loss of consciousness (LOC) (>1 min), Amnesia
Sequelae	• Concussive convulsions
Temporal	• Frequency – repeated concussions over time • Timing – injuries close together in time • 'Recency' – recent concussion or traumatic brain injury
Threshold	• Repeated concussions occurring with progressively less impact force or slower recovery after each successive concussion
Age	• Child and adolescent (<18 years)
Comorbidities and premorbidities	• Migraine, depression or other mental health disorders, attention deficit hyperactive disorder (ADHD), learning disabilities (LD), sleep disorders
Medication	• Psychoactive drugs, anticoagulants
Behaviour	• Dangerous style of play
Sport	• High risk activity, contact with collision sport, high sporting level

Table 3 Concussion modifiers

Return to Play

This position statement, in keeping with international best practice, rightly advocates a two week rest period for all female players where a diagnosis of concussion has been made. Following recommendations from our medical advisors and consideration of practices in other sports and the fact that our players may also be playing several sports, the LGFA recommends that the two week rest period is applied all players. The two week rest period will allow time for medical review and enable a player to focus on return to learning at school before return to sport.

Helping your players cope with their concussion injury.

The best medical management for concussion is rest (Body and Brain). Players often feel tired and may experience difficulties at work or school when carrying at task which require concentration. Players may also encounter mood difficulties and feel depressed, anxious or irritable with family or team mates. The following actions can help players cope:

- Support should be provided to players during this recovery period.
- Alcohol should be avoided as it may delay recovery and put the player at increased risk for further injury.
- When dealing with persistent symptoms, it is essential that players only take medications prescribed by their doctor.
- Recovery form concussion should not be rushed nor pressure applied to players to resume playing until recovery is complete. The risk of re injury is high and may lead to recurrent concussion injuries which can cause long term damage.
- Remember ‘‘better to have missed one game than the whole season.’’

Sports Concussion Assessment Tool 3 (SCAT3)

While the diagnosis of concussion is a clinical judgment ideally made by a medical professional, the SCAT 3 provides a standardized tool assessing an injured player aged from 13 years and older for concussion. SCAT 3 is designed for use by registered medical practitioners and other clinical personnel that have appropriate training to use SCAT 3.

SCAT 3 consists of two parts - the first part is an initial pitch side assessment of injury severity (Concussion signs, Glasgow Coma Scale and Maddocks Score). Any player with a suspected concussion should be **REMOVED FROM PLAY**, medically assessed, monitored for deterioration and should not drive a motor vehicle until cleared to do so by a registered medical practitioner.

The second part of the SCAT 3 should be carried out after a minimum 15 minute rest period to avoid the influence of exertion and fatigue on the player’s performance. This assessment consists of symptom checklist, symptom severity, as well as neuro cognitive and balance functions.

It is recognised that 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. The diagnosis of a concussion **is a clinical judgement.**

Concussion Management in Children 5 years – 12 years

Concussion management is different due to factors such as brain development, variable growth rates, language difficulties, child versus parental reports of symptoms, lack of medical coverage at underage games, physical examination in children is usually normal.

Management in children involves:

- ✓ Rest for minimum of two weeks - No sports, exertions, minimal TV, PC use, music etc…
- ✓ Occasionally there is a need for gradual return to school work, increase breaks during school day etc…

References

Echemendia, et al (2013) **Advances in neuropsychological assessment of sport-related concussion** Br J Sports Med 2013; 47:5 294-298doi:10.1136/bjsports-2013-092186

Guskiewicz et al (2013) **Evidence-based approach to revising the SCAT2: introducing the SCAT3** Br J Sports Med; 47:5 289-293doi:10.1136/bjsports-2013-092225

Mc Crea et al (2013) **Day of injury assessment of sport-related concussion** Br J Sports Med; 47:5 272-284doi:10.1136/bjsports-2013-092145

Mc Crory et al (2013) **Consensus statement on concussion in sport: the 4th International Conference on Concussion in Sport held in Zurich, November 2012** Br J Sports Med; 47:5 250-258doi:10.1136/bjsports-2013-092313

McCrory et al (2013) **What is the lowest threshold to make a diagnosis of concussion?** Br J Sports Med; 47:5 268-271doi:10.1136/bjsports-2013-092247

Moffatt, S. (2007) **Position Statement on Concussion in Gaelic Games.** Available at: http://www.gaa.ie/content/documents/publications/player_welfare/Position_Statement_on_Concussion_in_Gaelic_Games_100113150301.pdf Accessed: 30 October 2013.

Putukian et al (2013) **Onfield assessment of concussion in the adult athlete** Br J Sports Med 2013; 47:5 285-288doi:10.1136/bjsports-2013-092158

All Correspondence should be directed to:

GAA Medical, Scientific and Welfare Committee

Ms Ruth Whelan, Physiotherapy Manager, UPMC Beacon Hospital, BSc MSc MISCP