

# FAW CONCUSSION GUIDELINES



**Inside Concussion**

# SUMMARY POINTS

A concussion – or minor traumatic brain injury – is a temporary disturbance in the brain's functioning as a result of a blow to the head.



While injury to the brain can be fatal, most concussions recover completely with correct management

All concussions should be regarded as potentially serious and should be managed in accordance with the appropriate guidelines

Incorrect management of concussion can lead to further injury

Anyone with any concussion symptoms following a head injury must be removed from playing or training



Loss of consciousness does not occur in the majority of concussions



Return to education or work must take priority over return to play



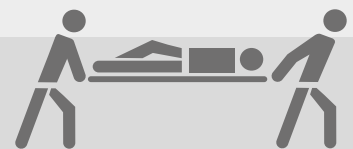
There must be no return to play on the day of any suspected concussion



A progressive exercise program that introduces an individual back to sport in a step-wise fashion is recommended after a concussion



An injury to the cervical spine (neck) may occur at the same time as a concussion and normal principles of cervical spine care should also be followed





# FA WALES CONCUSSION GUIDELINES\*

These guidelines are intended to give guidance to those managing concussion in football at all levels. Professional and elite level players sometimes have access to an enhanced level of medical care which means that their concussion and their return to play can be managed in a more closely monitored way. In this situation only, the guidelines for return to play in an enhanced care setting may be followed.

These guidelines are based on current evidence and examples of best practice taken from other sports and organisations around the world, including the Rugby Football Union, World Rugby and the Cross-Sports Scottish Sports Concussion Guidance. Advice has also been sought from The FA's Expert Panel on Concussion and Head Injury in Football. The guidelines are in line with the Consensus in Sport issued by the 5th International Conference on Concussion in Sport held in Berlin, October 2016.

While these guidelines aim to reflect 'best practice', all accept that there is a current lack of evidence in respect to their effectiveness in preventing long-term harm. The FAW will continue to monitor research and consensus in the area of concussion and update these guidelines accordingly.

\*modified from 'The FA's Concussion Guidelines'

# INTRODUCTION

The following guidance is intended to provide information on how to recognise concussion and on how concussion should be managed from the time of injury through to safe return to football.

At all levels in football, if a player is suspected of having a concussion, they must be immediately removed from the pitch, whether in training or match play.

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# WHAT IS CONCUSSION?

Concussion is an injury to the brain resulting in a temporary disturbance of brain function. There are many symptoms of concussion, common ones being headache, dizziness, confusion, nausea or balance problems.



## What causes concussion?

Concussion can be caused by a direct blow to the head, but can also occur when a blow to another part of the body results in rapid movement of the head e.g. whiplash type injuries.



## Onset of Symptoms

The symptoms of concussion typically appear immediately, but their onset may be delayed and can appear at any time after the initial injury.

## Who is at risk?

Concussion can happen to any player at any age however there is some evidence to suggest that children and female athletes are more susceptible to concussion and second impact syndrome.

Loss of consciousness does not always occur in concussion (in fact it occurs in less than 10% of concussions).

A concussed player may still be standing up and may not have fallen to the ground after the injury.



# HOW TO RECOGNISE A CONCUSSION?



If any of the following signs or symptoms are present following an injury the player should be suspected of having a concussion and immediately removed from play or training and must not return to play that day.

## INSIDE CONCUSSION



### Visible clues (signs) of concussion *What you may see*

Any one or more of the following visual clues can indicate a concussion:

- Dazed, blank or vacant look
- Lying motionless on ground / slow to get up
- Unsteady on feet / balance problems or falling over / poor coordination
- Loss of consciousness or responsiveness
- Confused / not aware of play or events
- Grabbing / clutching of head
- Seizure (fits)
- More emotional / irritable than normal for that person



### Symptoms of concussion *What you may be told by the injured player*

Presence of any one or more of the following symptoms may suggest a concussion:

- Headache
- Dizziness
- Mental clouding, confusion, or feeling slowed down
- Visual problems
- Nausea or vomiting
- Fatigue
- Drowsiness / feeling like "in a fog" / difficulty concentrating
- "Pressure in head"
- Sensitivity to light or noise



### Questions to ask a player

These should be tailored to the particular activity and event, but failure to answer any of the questions correctly may suggest a concussion. Examples with alternatives include:

What venue are we at today?

OR

Where are we now?

Which half is it now?

OR

Approximately what time of day is it?

Who scored last in this game?

OR

How did you get here today?

What team did you play last game?

OR

Where were you on this day last week?

Did your team win the last game?

OR

What were you doing this time last week?

**Video footage:** If video footage of the incident is available this may be of assistance in establishing the mechanism and potential severity of the injury and can be used to contribute to the overall assessment of the player. This may be viewed by the person assessing the injured player or can be commented on by a third party, such as the tunnel doctor in an elite professional setting. A coach or parent may have video footage that could be helpful in a non-elite setting. However video evidence must not be used to contradict a medical decision to remove the player.

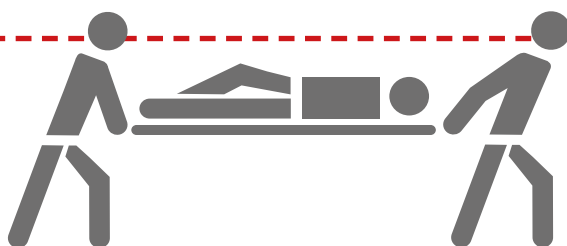
# WHAT TO DO NEXT?

Anyone with a suspected concussion **MUST** be **IMMEDIATELY REMOVED FROM PLAY**



Once safely removed from play they must not be returned to activity that day.

Team-mates, coaches, match officials, team managers, administrators or parents who suspect someone may have concussion **MUST** do their best to ensure that they are removed from play in a safe manner.



If a neck injury is suspected suitable guidelines regarding the management of this type of injury at pitchside should also be followed (*see useful links for pitchside injury management training*)



If **ANY** of the following are reported then the player should be transported for urgent medical assessment at the nearest hospital emergency department:

Severe neck pain

Deteriorating consciousness (more drowsy)

Increasing confusion or irritability

Severe or increasing headache

Any vomiting

Loss of consciousness

Unusual behaviour change

Seizure (fit)

Double vision

Weakness or tingling/burning in arms or legs

In all cases of suspected concussion it is recommended that the player is referred to a medical or healthcare professional for diagnosis and advice, even if the symptoms resolve.

# ONGOING MANAGEMENT?

## Rest the body, rest the brain



Rest is the cornerstone of concussion treatment. This involves resting the body, 'physical rest', and resting the brain, known as 'cognitive rest'. The period of rest allows symptoms to recover and in the non-professional setting can allow a gradual return to work or study prior to resuming training and playing.

### Rest means avoiding:

- Physical activities such as running, cycling, swimming, physical work activities etc.
- Cognitive activities (thinking activities), such as school work, homework, reading, television, video games. Students with a diagnosis of concussion may need to have allowance made for impaired cognition during recovery, such as additional time for classwork, homework and exams



### Anyone with a concussion or suspected concussion should NOT:

- **be left alone** in the first 24 hours
- **consume alcohol** in the first 24 hours, and thereafter should avoid alcohol until free of all concussion symptoms
- **drive a motor vehicle** and should not return to driving until provided with medical or healthcare professional clearance or, if no medical or healthcare professional advice is available, should not drive until free of all concussion symptoms

### Returning to play after a concussion

The graduated return to play (GRTP) protocol should be followed in all cases. This staged programme commences at midnight on the day of injury and stage 1 (initial rest period) is 14 days in all players unless they are in an enhanced care setting. In all cases, progression to stage 2 of the GRTP can only occur if the player has no symptoms.

### Return to work and study after a concussion

At the non-professional level, adults must have returned to normal education or work and students must have returned to school or full studies before starting physical activity (stage 2) in a GRTP program.

# GRADUATED RETURN TO PLAY PROTOCOL

## Rest the body, rest the brain



A graduated return to play (G RTP) protocol is a progressive exercise program that introduces an individual back to sport in a step-wise fashion.

### Stage 2 of the G RTP protocol should only be started when a player

- is symptom-free at rest and has completed the initial rest period (14 days in a standard care setting and modified in an enhanced care setting)
- has returned to normal education or work if not a professional footballer
- is not receiving treatments and medications that may mask concussion symptoms, e.g. drugs for headaches or sleeping tablets.

### The G RTP Protocol contains six distinct stages

Stage 1	Stage 2	Stage 3	Stage 4	Stage 5	Stage 6
Stage 1 is an initial rest period during which symptoms should resolve. This stage must be extended if symptoms persist	The next four stages are restricted, training based activity				Return to full training and match play

Under the G RTP Protocol, the individual can advance to the next stage **only if there are no symptoms** of concussion at rest and at the level of physical activity achieved in the current G RTP stage.

If any symptoms occur while going through the G RTP program, the individual must return to the previous stage and attempt to progress again after a minimum 24-hour period of rest without symptoms (this is 48 hours in players under 19 years of age).

It is recommended that a medical practitioner confirms recovery before an individual enters Stage 5 (full-contact practice).

The 6 stage G RTP protocol should be followed in all cases.



# GRADUATED RETURN TO PLAY PROTOCOL



Stages 2-5 take a minimum of 24 hours in adults, 48 hours in those aged 19 and under.

	Stage 1 Initial rest period 14 days <i>modified in enhanced care setting</i>	Stage 2 Light exercise	Stage 3 Football-specific exercise	Stage 4 Non-contact training	Stage 5 Full contact practice	Stage 6 Return to play
EXERCISE ALLOWED	<ul style="list-style-type: none"> <li>Complete body and mind rest for 48 hours followed by normal daily activities as long as these do not worsen symptoms.</li> </ul>	<ul style="list-style-type: none"> <li>Walking, light jogging, swimming, stationary cycling or equivalent</li> <li>No football, resistance training, weight lifting, jumping or hard running</li> </ul>	<ul style="list-style-type: none"> <li>Simple movement activities e.g. running drills</li> <li>Limit body and head movement</li> <li>NO head impact activities including NO heading</li> </ul>	<ul style="list-style-type: none"> <li>Progression to more complex training activities with increased intensity, coordination and attention e.g. passing, change of direction, shooting, small-sided game</li> <li>May start resistance training</li> <li>NO head impact activities including NO heading - goalkeeping activities should avoid diving and any risk of the head being hit by a ball</li> </ul>	<ul style="list-style-type: none"> <li>Normal training activities e.g. tackling, heading, diving saves</li> </ul>	<ul style="list-style-type: none"> <li>Player rehabilitated</li> </ul>
% MAX HEART RATE	<ul style="list-style-type: none"> <li>No training</li> </ul>					
DURATION (min)						
OBKECTIVE	<ul style="list-style-type: none"> <li>Recovery</li> <li>No symptoms at the end of 2 weeks</li> </ul>	<ul style="list-style-type: none"> <li>Increase heart rate</li> </ul>	<ul style="list-style-type: none"> <li>Add movement</li> </ul>	<ul style="list-style-type: none"> <li>Exercise, coordination and skills/tactics</li> </ul>	<ul style="list-style-type: none"> <li>Restore confidence and assess functional skills by coaching staff</li> </ul>	<ul style="list-style-type: none"> <li>Return to play</li> </ul>

# STANDARD RETURN TO PLAY PATHWAY



The minimum time in which a player can return to play in the standard care setting is summarised in the table below. Each day comprises a 24-hour period. The pathway begins at midnight on the day of injury.

	Stage 1 Initial rest period	Stage 2 Light exercise	Stage 3 Football-specific exercise	Stage 4 Non-contact training	Stage 5 Full contact practice	Stage 6 Return to play
<b>ADULT</b>	14 days beginning at midnight on the day of injury. The player must be symptom-free at the end of this period before progressing	Minimum duration <b>24 hours</b>	Minimum duration <b>24 hours</b>	Minimum duration <b>24 hours</b>	Minimum duration <b>24 hours</b>	<b>Day 19</b> Earliest return to play
<b>UNDER 19</b>	14 days beginning at midnight on the day of injury. The player must be symptom-free at the end of this period before progressing	Minimum duration <b>48 hours</b>	Minimum duration <b>48 hours</b>	Minimum duration <b>48 hours</b>	Minimum duration <b>48 hours</b>	<b>Day 23</b> Earliest return to play

Return to academic studies or work  
Clearance by doctor recommended

4 days if symptom-free

8 days if symptom-free

Clearance by doctor before stage 5

Clearance by doctor before stage 5

**It must be emphasised again, that these are minimum return to play times and in players who do not recover fully within these timeframes, return to play times will need to be longer. If symptoms of concussion persist for greater than 14 days (28 days in those under 19) then referral to a healthcare practitioner is advised.**

It is recognised that players will often want to return to play as soon as possible following a concussion. Players, coaches, management, parents and teachers must exercise caution to:

- Ensure that all symptoms have resolved before commencing GRTP
- Ensure that the GRTP protocol is followed
- Ensure that the advice of medical practitioners and other healthcare professionals is strictly adhered to

After returning to play, all those involved with the player, especially coaches, support staff and parents must remain vigilant for the return of symptoms even if the GRTP has been successfully completed.

*If symptoms recur the player must consult a healthcare practitioner as soon as possible as they may need a referral to a specialist in concussion management.*

## How are recurrent or multiple concussions managed?

Any player with a second concussion within 12 months, a history of multiple concussions, players with unusual presentations or prolonged recovery should be assessed and managed by a healthcare provider with experience in sports-related concussions working within a multidisciplinary team.

Outcomes in concussion are better if the injured player is well informed and understands what has happened. Measures to improve understanding and deal with emotional problems and anxiety should also be considered in the management of concussed players.

See also, publications by Headway - the Brain Injury Association, useful links on page 13.

# ENHANCED CARE SETTING



In some circumstances (such as Professional Clubs, International teams and Academies) there may be an enhanced level of medical care available which allows closer supervision of a player's care and graduated return to play (GRTP). In these instances, a shorter timeframe for return to play (RTP) may be possible, but only under strict supervision by the appropriate medical personnel as part of a structured concussion management programme. **It is never appropriate for a player under the age of 16 to follow this pathway.**

In these circumstances **ONLY**, can the Return to Play Pathway in an Enhanced Care Setting be followed.

## **The minimum criteria for an Enhanced Care Setting are as follows:**

- 1.** There is a doctor with training and experience in the management of concussion/traumatic brain injury in sport available to closely supervise the player's care and GRTP, and clear the player prior to RTP.
- 2.** There is a structured concussion management programme in place for the player as outlined below:
  - a.** Baseline SCAT5 and/or computerised neuro-psychometric/cognitive testing of the player has been conducted prior to the injury
  - b.** Clinical serial multimodal assessment of the player occurs post-concussion to guide the recovery protocol. Acknowledging that more than one area of brain function can be affected by concussion, this will involve formal documented assessment of areas such as cognitive function, emotional wellbeing, neurological function and any physical trauma sustained
  - c.** A formalised GRTP programme with regular SCAT5 or equivalent assessments is followed and recorded in the player's medical records
  - d.** The player has access to a multi-disciplinary team including neuropsychology / neurology / neurosurgery specialists and other clinicians as required to supervise the return to play and instigate any treatment or investigation required should the RTP progression not be straightforward
  - e.** A formal and documented concussion education programme exists for coaches and players in the club or team involved

**If any element of the above criteria is absent, the player should follow the standard Return to Play Pathway.**

# ENHANCED CARE SETTING



The minimum time in which a player can return to play in the Enhanced Care Setting is summarised by the table below. Each day comprises one 24-hour period. The pathway begins at midnight on the day of injury.

	Stage 1 Initial rest period	Stage 2 Light exercise	Stage 3 Football-specific exercise	Stage 4 Non-contact training	Stage 5 Full contact practice	Stage 6 Return to play
<b>ADULT</b>	24 hours minimum rest period after which the player must be symptom-free before progressing	Minimum duration <b>24 hours</b>	Minimum duration <b>24 hours</b>	Minimum duration <b>24 hours</b>	Minimum duration <b>24 hours</b>	<b>Day 6</b> Earliest return to play
<b>UNDER 19</b>	14 days minimum initial rest period after which the player must be symptom-free before progressing	Minimum duration <b>24 hours</b>	Minimum duration <b>24 hours</b>	Minimum duration <b>24 hours</b>	Minimum duration <b>24 hours</b>	<b>Day 12</b> Earliest return to play

----- 4 days if symptom-free ----->

----- 4 days if symptom-free ----->

**The whole return to play process must be supervised by a suitably qualified doctor within a structured concussion management programme**  
**It must be emphasised again, that these are minimum return to play times and in players who do not recover fully within these timeframes, return to play times will need to be longer**

It is recognised that players will often want to return to play as soon as possible following a concussion. Players, coaches, management, parents and teachers must exercise caution to:

- a. Ensure that all symptoms have resolved before commencing GRTP
- b. Ensure that the GRTP protocol is followed
- c. Ensure that the advice of medical practitioners and other healthcare professionals is strictly adhered to

After returning to play, all those involved with the player, especially coaches, support staff and parents must remain vigilant for the return of symptoms even if the GRTP has been successfully completed.

If symptoms recur the player must consult a healthcare practitioner as soon as possible as they may need a referral to a specialist in concussion management.

## How are recurrent or multiple concussions managed?

Any player with a second concussion within 12 months, a history of multiple concussions, players with unusual presentations or prolonged recovery should be assessed and managed by a healthcare provider with experience in sports-related concussions working within a multidisciplinary team.

Outcomes in concussion are better if the injured player is well informed and understands what has happened. Measures to improve understanding and deal with emotional problems and anxiety should also be considered in the management of concussed players.

# USEFUL LINKS



## **Berlin concussion group consensus statement**

<http://bjsm.bmj.com/content/bjsports/early/2017/04/26/bjsports-2017-097699.full.pdf>

## **SCAT5**

<http://bjsm.bmj.com/content/bjsports/early/2017/04/26/bjsports-2017-097506SCAT5.full.pdf>

## **Child SCAT5**

<http://bjsm.bmj.com/content/bjsports/early/2017/04/26/bjsports-2017-097492childscat5.full.pdf>

## **Pocket Recognition Tool**

<http://bjsm.bmj.com/content/bjsports/47/5/267.full.pdf>

### **Useful adjuncts to concussion assessment and management:**

#### **Cogstate**

*Baseline cognitive testing*

[www.axonsports.com](http://www.axonsports.com)

#### **imPACT**

*Baseline cognitive testing*

[www.impacttest.com](http://www.impacttest.com)

#### **ISEH**

Multidisciplinary concussion management team

[www.iseh.co.uk](http://www.iseh.co.uk)

#### **Headway - the Brain Injury Association**

*Charity offering brain injury and concussion advice, support and information, useful publications include:*

*Concussion in sport factsheet*

*Minor head injury discharge advice factsheet*

*Minor head injury and concussion booklet*

*Find copies at: <https://www.headway.org.uk/about-brain-injury/individuals/information-library/>*

[www.headway.org.uk](http://www.headway.org.uk)

[www.concussionaware.org.uk](http://www.concussionaware.org.uk)

#### **Brain and Spine Foundation**

*Charity offering support and advice*

[www.brainandspine.org.uk](http://www.brainandspine.org.uk)

#### **Birmingham Sport Concussion Clinic**

<http://www.uhb.nhs.uk/sport-and-exercisemedicine.htm>