

# Concussion Guidance

Concussion is a common injury. Awareness has significantly increased in schools in recent years due to contact sports. However, it is important to note that concussions occur in everyday life. All concussions, whether sport related or not, should be managed the same and the current guidance reflects this.

## The Key Facts

- Concussion is a brain injury that can occur both in and out of sport
- School staff, parents and pupils all have an important role to play in the recognition and management of concussion
- Returning to normal life (and work/school) should take priority of returning to sport.
- Most concussions recover well with time
- Complications of concussion are significantly reduced if the brain is allowed to recover before being put at risk of further injury – "If in doubt, sit them out"
- There are "Return to Sport" protocols to help safely manage a return to sporting activity. These were updated in April 2023 following the release of UK government guidance (see below). Timeframes listed are the earliest allowed, progress should be dependent on symptoms and medical clearance.
- All suspected brain injuries will be managed as per the guidelines.

## Return to Normal Activity and Sport Pathway – November 2023

Following a concussion/ suspected concussion\*

Time since injury (earliest	Activity Level
day)	
0-2 days	Relative rest
Medical Assessment (with school/club medical team, doctor or hospital if unable to access or requirement for higher level input) to aid recovery and offer advice.	
3-7 days	Light activity Gentle walk etc. Activity that does not leave you breathless
8 days onwards	Low risk exercise and fitness training
·	Gradual increase in self-directed exercise and training
	E.g. running, stationary bike, swimming, supervised weight training etc.
	Focus on fitness
	Can introduce <b>static</b> training drills (eg. passing/kicking). Only drills with <b>NO</b>
	predictable risk of head injury
Medical Assessment	
to assess fitness to start a formal return to sport	
and advise on timeframes.	
15 days	Gradual return to sports training
onwards	Start with non-contact and gradually build up complexity and intensity
	Introduce contact in the final stages (only when symptom free at rest for 14
	days)
Medical Assessment	
to assess fitness to return to unrestricted sport,	
including matches.	
Day 21 earliest	Earliest possible return to competitive sport/matches
	Only if symptom free at rest for at least 14 days and has completed gradual
	return to sports training without any recurrence in symptoms

\*If a concussion or suspected concussion has happened out with school hours or elsewhere, please do not leave it for the school nurse to do the initial assessment with your child when they return to school. Instead, please contact the school with the information about the outcome of the medical assessment that should have been done out with school hours.

# What is Concussion?

In recent years, knowledge around concussion, how it should be managed, and the potential short and long-term health implications have advanced hugely.

The term "concussion", while commonly used, is imprecise and there remains disagreement around the definition of the injury and the process going on within the brain.

We know concussion is a traumatic brain injury and it can be caused by a direct head blow but also from forces transmitted to the head – e.g. a whiplash/violent shaking injury. It can cause a wide range of signs and symptoms and the effects tend to be short-lived.

#### Signs and Symptoms of Concussion

There are many signs and symptoms that may suggest a concussion has occurred. There is no single definitive list of signs or symptoms that prove a concussion has happened. There may only be one symptom present, or there may be multiple signs and symptoms.

# What are the signs of concussion?

If any of the following signs are noted, the injured person should be suspected of having sustained a concussion:

- Dazed, blank or vacant look
- Lying motionless on the ground or slow to get up
- Unsteady on feet/falling over/incoordination
- Inappropriate or unusual behaviour
- Grabbing / clutching of head
- Seizure (fits)
- Loss of consciousness\* or not responsive

\*Important note: The vast majority of concussions do not have a loss of consciousness (being knocked out). It occurs in less than 10% of injuries and is not required to diagnose concussion.

#### What are the Symptoms of Concussion?

If any of the following symptoms are experienced by the injured person then they should be suspected of having sustained a concussion:

- Headache
- Dizziness
- Confusion, or feeling "slow"
- Visual problems
- Nausea or vomiting
- Fatigue
- Drowsiness / feeling like "in a fog" /difficulty concentrating
- "Pressure in head"
- Sensitivity to light or noise

Often children find it difficult to express exactly how they feel. It is common for them to say "I just don't feel right". Time must be taken to help the injured person to communicate symptoms and to check their level of understanding of medical questions being asked during the assessment process. This is a consideration especially in young or vulnerable children or adults.

\*Important note: Sometimes the onset of symptoms is delayed by 24-48 hours. If an adult or child has taken a blow that concerns you but there are no symptoms at the time, you should ask them to let you know if they feel unwell at all over the next few days.

# Worrying symptoms referred to as the "Red Flags"

If any of the following signs or symptoms are noted, these are considered 'red flags' and the injured person should be transferred to the nearest hospital for urgent medical assessment.

- Severe neck pain
- Double vision
- Weakness or tingling / burning in arms or legs
- Severe or increasing headache
- Seizure (fit)
- Loss of or deteriorating consciousness (more drowsy)
- Repeated vomiting
- Increasing confusion or irritability
- Unusual behaviour change

# **Immediate Management**

If playing sport, the player should be removed from play immediately and take no further part in the activity. Risks of concussion are significantly reduced if the brain is allowed to recover before being put at risk of further injury, therefore – "If in doubt, sit them out".

Both sporting and non-sporting concussions need rest. The injured person should be monitored in a quiet, warm environment to ensure no worrying symptoms develop. It is recommended that anyone suspected of sustaining a concussion should be reviewed by a healthcare professional, even if symptoms have gone.

Important note: It is common for the injured person to feel much better quickly. This does not mean they have recovered so, if playing sport, they should not return to play.

#### **Ongoing Management**

The initial focus should be on return to normal life – and for children, return to learning being a priority before a return to sport.

#### 1. Rest

Early rest is key to good recovery from concussion. The injured person should be advised to take it easy for a couple of days and have a day or two off school if feeling unwell. Its sensible to minimise screen time and reading during this stage.

#### 2. Return to normal life

If symptom free after a day or two of rest, the focus can change to returning to activities of normal life. This should be done gradually, only moving onto the next phase if they remain symptom free.

An example of a phased "Return to normal life" might be:

#### Phase 1: Rest

Phase 2: "Working from home" – homework, reading etc

Phase 3: "Part-time study" – half days, avoiding complicated study

Phase 4: "Full return to academic work"

Important note: Return to Learn – Sometimes, the only symptom of concussion that persists is difficulty concentrating in the classroom. Often children don't realise this is caused by their concussion and it goes unnoticed, persists, and results in poor recovery and poor academic performance.

Academic and support staff have an important part to play in recognising if a child is under-performing following a concussion and implementing strategies to aid recovery. So, it is sensible to let them know the injury has occurred. Parents and staff have a responsibility for communicating this information about the injured person to the relevant people. Staff will be responsible for self-directed learning on concussion and encouraged to complete e-modules on concussion such as that provided by Scottish Rugby and TES, both of which are updated regularly as new guidance is implemented.

#### **Return to Sport**

Latest research has shown that there are benefits from returning to some physical exercise during the first weeks of recovery. The concussion guidance reflects this. Obviously exercise also has wider physical and mental health benefits.

There can be a gradual return to low risk physical exercise from 1 week post-injury as long as the injured person is managing with day-to-day activities (i.e school/work) without exacerbation of symptoms. The focus should be on maintaining fitness — running, stationary bike, swimming etc. They should not be taking part in formal training activities or competition. For example, while running for fitness maintenance would be allowed, they shouldn't be taking part in athletics training or competitions.

#### Return to sport

As long as they are symptom-free and have fully returned to normal life and light exercise, a return to sport can start after 14 days. Return to sport should follow a phased process, gradually increasing the amount and intensity of activity. Contact activities should be the final stage of a return.

An example of a phased (or graduated) return to sport:

**Phase 1:** The 7 day rest period which includes relative rest to begin with followed by light activity. A gentle walk. Activity that does not incur breathlessness.

Phase 2: Light, "low-risk" exercise eg walking, light jog, cycle. Focus on fitness.

#### Medical Assessment for clearance to return to training (circa day 14)

Phase 3: Sport-specific exercise eg running drills

Phase 4: Non-contact training eg more complex training with increased intensity

Phase 5: Unrestricted training activity

Medical Assessment for clearance to return to competition

Phase 6: Return to play

The earliest return to competitive/match play is day 21 post-injury and only if symptom free at rest for at least 14 days AND have completed Phase 3-5 without recurrence in symptoms.

## Risks following a concussion

All concussions have the potential to be serious. While the vast majority recover without any long-term implications, risks are significantly increased if further injury is sustained when the brain has not had time to recover.

If concussions are not managed properly there are the following health risks:

- 1. **Prolonged symptoms** sometimes referred to as post-concussion syndrome
- 2. **Long term health issues** concerns around neuro-degenerative problems (there remains some controversy around this)
- 3. **Death** an extremely rare complication called "Second Impact Syndrome"

This is why recognition and immediate removal from play during sport is so important. The risks of these complications far outweigh the benefits of allowing a player to continue. "If in doubt, sit them out".

## **Multiple Concussions**

Anyone with a history of two or more concussions within a 12-month period is at greater risk of further brain injury and a prolonged recovery. They should seek the medical attention of doctors with experience in concussion management before returning to play.

#### **Medical Assessment**

Phone NHS 24 on 111, if you suspect someone has a concussion, but they do not have symptoms that need to be seen urgently at A&E.

Where possible, players should see a doctor with experience in managing concussions.

While knowledge is increasing among the medical community, there may still be doctors who are not aware of the guidelines.

Doctors should be asked if there are any medical reasons for the player not to return to sport. They should NOT be asked - and should not give – approval to return to sport before the guidelines allow.