IRFU GUIDE TO CONTROL SOLUTION IN AMATEUR RUGBY UNION

THE AIM OF THIS BROCHURE IS TO PROVIDE INFORMATION ON CONCUSSION TO THOSE INVOLVED IN RUGBY UNION IN IRELAND.

- > Concussion MUST be taken extremely seriously.
- > Any player with a suspected concussion MUST be removed immediately from training/play and not return.
- > They MUST complete the Graduated Return to Play Protocol.
 - > Concussion is treatable.

RECOGNISE AND REMOVE





WHAT IS CONCUSSION?

Sports related concussion is a **traumatic brain injury** that is caused by a direct force to the head or a force elsewhere in the body which is transmitted to the head. Concussion results in temporary impairment of brain function. However, in some cases, signs and symptoms evolve over a number of minutes to hours.

What causes it?

Concussion can be caused by a blow to the head or from a whiplash type movement of the head and neck that can occur when a player is tackled or collides with another player or the ground.

Concussion Facts:

- > You do not have to lose consciousness to suffer from a concussion.
- > The effects of concussion cannot be seen on standard x-ray, CT scan or MRI.
- > Concussion can occur in a game or at training.
- > The onset of the effects of concussion may be delayed for up to 24-48 hours.
- > Symptoms generally resolve over a period of days or weeks but in some cases can be more prolonged.
- > Most doctors would argue that the physical benefits of taking part in contact sports outweigh the potential risks associated with sports related concussion.

Concussion is treatable. By managing concussion appropriately in the early stages and getting help from healthcare professionals such as the GP and physiotherapist where required, you can fully recover from concussion.

How common is concussion?

Two recent studies on amateur rugby in Ireland (the RISUS study on school boys in 2015 and the IRIS study on all-Ireland League teams in 2018) found a rate of concussion of 6 per 1000 match play hours. This equals three concussions per team, per season.



HOW TO RECOGNISE A CONCUSSION:

There are a number of signs and symptoms of concussion.

If a player has any ONE of the following visible clues they must be **immediately removed from play and must not return that day.**

What you may see when the player is on the field:

- > Loss of consciousness
- > Seizure or convulsion
- > Balance problems
- Lying motionless on ground
- > Grabbing/clutching head
- > Slow to get up
- > Unsteady on feet
- > Balance problems or falling over

When you talk to the player:

- > Confusion
- > Disorientated
- > Complaining of signs & symptoms listed above
- > Player 'just not right'

What the player complains of

- > Nausea (feeling sick) or vomiting
- > Drowsiness
- > Player is more emotional
- > Irritability
- > Sadness

- > Player is more nervous or anxious
- > "Doesn't feel right"
- > Headache
- > Dizziness
- > Feeling slowed down
- "Pressure in head"
- > Blurred vision
- > Sensitivity to light
- > Amnesia
- > Feeling like "in a fog"
- > Fatigue or low energy

Later on:

The signs and symptoms of concussion usually start at the time of the injury but the onset of these may be delayed for up to 24–48 hours. **Player may complain or you may notice**;

- > Any of the above mentioned
- > Drowsiness
- > Fatigue or low energy
- > Amnesia
- > Trouble sleeping
- > Trouble concentrating
- > Feeling slowed down
- Slowed reaction times



RED FLAGS FOR MORE SERIOUS HEAD INJURY

Remember that not all head injuries are concussions. If a player has a more serious head injury you may observe the following red flags at the time of the event or later on:



- > Call an ambulance and do not move the unconscious player unless they are in harm's way.
- > You may also need to consider whether there has been a spinal injury.

RED FLAGS FOR SPINAL INJURY

If a player has suspected spinal injury then this becomes the primary concern. Call an ambulance and do not move the player. The player needs to have their neck injury assessed before they are assessed for concussion.

The following are red flags for a more serious spinal injury:



The player should be medically assessed as soon as possible



THE CONCUSSION RECOGNITION TOOL

The Concussion Recognition Tool (pictured below) was developed by the Concussion in Sport group to help identify the signs and symptoms of concussion. It is on the IRFU Concussion Wallet card for easy access. Any assessment of a player with a suspected concussion should take place in a distraction free environment such as the changing room or medical room, and not on the side of a pitch. The assessment cannot be used to determine if a player can go back on the field. If there is reason to prompt a suspicion of concussion the player must be removed and cannot return that day. **There is no HIA in amateur rugby.**

The Maddocks questions should not be asked on field. If there is a suspicion that the player is confused or disorientated they should be safely removed from the field for further assessment and should not return to play that day.





WHY MUST CONCUSSION BE TAKEN EXTREMELY SERIOUSLY?

Ignoring the signs and symptoms of concussion may result in death, a more serious brain injury or a prolonged recovery period.

The potential for serious and prolonged injury emphasises the need for comprehensive medical assessment and follow-up until the concussion has fully resolved. Returning to play before complete resolution of the concussion exposes the player to recurrent concussions that might take place with ever decreasing forces.

Repeat concussions could mean that a player has to stop playing all contact sports earlier than expected and may have some potential to result in permanent neurological (brain) impairment. There is no such thing as a minor concussion or 'knock to the head'.

WHAT TO DO IF YOU SUSPECT CONCUSSION:

Recognise & Remove

If, at any point during a match or training, a player is concussed or has a suspected concussion, that player must be immediately and permanently removed from the field of play. This is known as "recognise and remove"



It's the law (Law 3). The referee may enforce this rule with or without the support of the coaches to ensure that the players welfare is the primary concern at all times



The player MUST NOT be left alone. A player with suspected concussion should be left in the care of a responsible adult who has been informed of the players suspected concussion.



They MUST NOT drive a vehicle.



The MUST NOT consume alcohol



They should be medically assessed as soon as possible.



They MUST NOT return to play before completing the graduated return to play (GRTP). Remember that this means that the player should not return to any sport, not just rugby, without carefully completing the GRTP.



NORMAL RECOVERY

Normal clinical recovery in adults is 10 -14 days and in children it is 1-4 weeks.

About 30% of people will take longer than 4 weeks to recover and are considered persistent. A person with persistent symptoms may benefit from an individualised treatment plan from their GP and/or Physiotherapist. At present there is limited evidence to support the use of medications in the management of concussion and the player should be wary of progressing through the Graduated Return To Play (GRTP) while taking any medications that may mask symptoms.

Players cannot return to play until they:



Are symptom free



Have completed the GRTP



Have been medically cleared to return



Have returned to learn/work





ROLES IN MANAGING CONCUSSION

Player

> As a player, if you feel that you may have suffered from a concussion, alert your coach/team medic/parent and do not play on. Players should be honest and report all signs and symptoms and should never attempt to continue playing.

Coach:

- > If you notice that a player appears to have suffered from a concussion you must safely remove them from the field immediately, regardless of whether it is during a game or training. The player cannot return to play on this day. It is important that the player's parents/guardians are informed if the player is under 18 years of age. The IRFU concussion wallet card has a section on the back to assist with handing over a concussed player. Any player who suffers from a concussions should be handed over to a responsible adult when they leave the rugby pitch.
- > If the coach is concerned that a player may have suffered from a more serious head injury and there is no medic/physio present, they should call for the assistance of an ambulance.
- > Coaches or team medics should fill in a report form following any suspected/confirmed concussion that is forwarded to their provincial branch. This can now be done online via the IRFU website.

Referee:

> A well informed referee should be able to identify the signs and symptoms of concussion.

Law 3 supports the referee's decision to remove any player with a suspected head injury from the field of play. The referee should clearly communicate with the team management that they are removing a player for this reason so that the player is appropriately cared for.

Parent/guardian:

> If you are watching your child playing and feel that they may have suffered from a concussion you should ensure that they are safely removed from the field and monitored for all signs and symptoms of concussion. Once they have been removed do not let them return to play on this day. If your child suffers from a suspected concussion you should monitor them for signs and symptoms of concussion for 48 hours. Your child should not return to any contact sport until they have completed the GRTP process. Return to school should be prioritised before return to sport.

Friend:

> If you notice that your teammate is acting differently and you are concerned that they may have suffered from a concussion, tell your coach immediately. Encourage your teammate to be honest about their symptoms and to report them immediately.



RESPONSIBILITIES / CHECKLISTS

Coach:



If player suffers suspected concussion remove the player safely.

Hand the player over to a responsible adult to observe during game.

Parents/guardians of underage players should be informed as soon as possible that the player has suffered from a suspected concussion and they should be advised that the child should not partake in any sport until they have completed the GRTP.

Tell parents about incident and advise on GRTP.

Fill out injury report (Injury Reporting: www.irishrugby.ie/playingthegame/medical.php).

Guide player through active phase of GRTP.

Parent:

Get full details of event if you were not present.

Observe the player over the next 24-48 hours and if symptoms worsen contact your GP.

Ensure the player does not drink alcohol or drive.

Ensure player does not return to play before completing the GRTP protocol.

The player should be medically assessed.

Encourage mental and physical rest for 1-2 days.

Inform school and other sports that your child has suffered from a concussion and will enter GRTP.

Focus on return to school before return to sport.

When the child has successfully returned to school they can focus on returning to sport. Ensure that player honestly reports any symptoms.



HOW TO MANAGE CONCUSSION

> Please see GRTP section on Page 14 for more details

Recommendation:

The player should get a brief period **(the first 24-48 hours)** of mental and physical rest in order to let the body recover and heal after sustaining a concussion. This means minimising the amount of time spent on mobile phones/tablets/laptops and watching TV, as well as avoiding physical activity. The player may need to take a day off from work or school. This amount of rest is just for the initial period following the injury.

Players should be encouraged to become gradually and progressively more active while staying below their cognitive and physical symptom exacerbation thresholds. Mild levels of symptom limited physical and cognitive activity should be introduced within 3-5 days.

- > Prolonged rest is not encouraged.
- > The player should return to learn before return to play. This means that they should be back in school or work before they return to rugby training or matches.
- > Physiotherapy for neck and vestibular rehabilitation may help individuals with neck pain, persistent dizziness and headaches.





WHEN TO SEE A DOCTOR?

Consider seeking medical advice in the following situations:

- > If you are on medications such as pain killers, anti-depressants and/or sleeping medication as symptoms may be masked. Therefore, players may need to seek medical advice about their progression through the GRTP while taking medications.
- > If you have 2 or more concussions in a 12 month period, you should see a medical specialist with experience of managing sports related concussion.
- > If you have prolonged symptoms or symptoms that are not improving seek medical advice.
- > Where a player is asymptomatic at day 14 but symptoms had persisted for a significant period of time within GRTP stage 1a & 1b, it may be appropriate to seek medical advice on the rate at which the player should progress through stages 2-6.
- > Medical clearance should be sought before return to contact.

WHEN TO CONSIDER SEEING A PHYSIOTHERAPIST?

Many symptoms of concussion could also be caused by issues with the neck e.g. headaches, dizziness, pain. A knock to the head or body may also cause disturbances to the inner ear that can cause vertigo type symptoms (dizziness, blurred vision, head aches).

A Chartered Physiotherapist with appropriate training can assess and treat both the neck and the inner ear and potentially relieve these symptoms if they have not resolved spontaneously within a few days of the injury occurring.



RETURNING TO SCHOOL

- > Returning to learn or work must be prioritised before returning to play. Schools may have a concussion policy which should offer appropriate academic accommodations and support students.
- > **Symptom limited mental activity:** Computer screens, phones and TV all keep our brain stimulated. When recovering from a concussion it is advisable to minimise use of these devices in the days following the injury in order to give the brain some rest. Gradual reintroduction of screen time over a number of days is advised. If symptoms increase then reduce screen time again.
- > Early introduction of **symptom limited physical activity** is appropriate within the return to learn protocol. As cognitive and physical symptoms subside, gentle exercise that does not increase symptoms and does not put the player at risk is advised.





GRADUATED RETURN-TO-SCHOOL STRATEGY

Stage	Aim	Activity	Goal
0	Rest	Mental and physical rest for 24-48hours following the injury	Recovery and resolution of symptoms
1	Daily activities at home that do not give the child symptoms	Typical activities of the child during the day as long as they do not increase symptoms (e.g. reading, texting, screen time). Start with 5–15 min at a time and gradually build up	Gradual return to typical activities
2	School activities	Homework, reading or other cognitive activities outside of the classroom	Increase tolerance to cognitive work
3	Return to school part-time	Gradual introduction of schoolwork. May need to start with a partial school day or with increased breaks during the day	Increase academic activities
4	Return to full academic activities	Gradually progress school activities until a full day can be tolerated	Return to school full time and catch up on missed work

 $Table from Consensus Statement on Concussion in Sport—the 5th international conference on concussion in sport held in Berlin, October 2016; \\McCrory P, et al. Br J Sports Med 2017$

Stage 0, 1 and 2 are completed outside of school.

 $\textbf{Stage 3 and 4} \ \text{return the child to school}.$





When a player sustains a concussion they enter into what is known as the graduated return to play (GRTP) protocol. This takes a minimum of 21 days to complete for adults and 23 days for children. It gradually returns the player to their previous level of activity in a safe and structured manor.

The player should work with their coach/parent/teacher to ensure that they complete each stage appropriately. Please see www.irishrugby.ie/concussion for further information on the GRTP, including videos of exercises suitable for each stage of the protocol. The GRTP wallet card is a convenient resource to have to hand when completing the protocol. You can get the wallet card from your club or school or download it from the IRFU website.

Adult	DAYS	U6 – U20
Recognise and Remove Stage 0 Rest	Day 0 (Day of injury) Day 1-2	Recognise and Remove Stage 0 > Rest
Stage 1a Symptom Limited Activity.	Day 1-2 to Day 14	Stage 1a Symptom Limited Activity.
> Daily activities that do not provoke symptoms. (e.g. walking at a comfortable pace, breathing slightly increased.)		> Daily activities that do not provoke symptoms. (e.g. walking at a comfortable pace, breathing slightly increased.)
Stage 1b		Stage 1b
Symptom Limited Exercise.		Symptom Limited Exercise.
> Exercise that does not provoke symptoms. Slowly build up the duration and intensity of the exercise. (e.g. Walking or jogging at a pace to cause minimal sweating, slight breathlessness and able to hold conversation.)		> Exercise that does not provoke symptoms. Slowly build up the duration and intensity of the exercise. (e.g. Walking or jogging at a pace to cause minimal sweating, slight breathlessness and able to hold conversation.)

Players should not progress to Stage 2 if they are still symptomatic $\,$



Adult	DAYS	U6 – U20
Stage 2 Increased Aerobic Exercise > Jogging / stationary bike at a pace to cause sweating, breathlessness and able to hold conversation with difficulty. > Non-contact activities. > No resistance training. Stage 3 Rugby Specific Exercise > Running drills building to max 60-80% effort (e.g. non-contact warm up) Balance exercises > Lower level resistance training (e.g. body weight exercises)	Day 15 Day 16	Stage 2 Increased Aerobic Exercise > Jogging / stationary bike at a pace to cause sweating, breathlessness and able to hold conversation with difficulty. > Non-contact activities. > No resistance training.
Stage 4	Day 17 - 18	Stage 3
Non-Contact Rugby		Rugby Specific Exercise
 > Training drills > High level balance tasks > May start progressive resistance training. > NO CONTACT 		> Running drills building to max 60-80% effort (e.g. non-contact warm up) Balance exercises > Lower level resistance training (e.g. body weight exercises)



Adult	DAYS	U6 – U20	
Stage 5 Full contact practice following medical clearance, participate in normal training activities	Day 19 - 20	Stage 4 > Non-Contact Rugby Training drills > High level balance tasks > May start progressive resistance training. > NO CONTACT	
Stage 6 Normal game play	Day 21 Day 22	Stage 5 Full contact practice following medical clearance, participate in normal training activities	
	Day 23	Stage 6 Normal game play	

No resistance training until Stage 3.

No contact until Stage 5, following medical clearance.



The GRTP may take longer than the minimum period stated therefore timings should be used as a guide only. The protocol should not replace advice given to an individual by their medical practitioner.

Players under 20 years of age must take a minimum of 23 days to get through the GRTP.

Adult players must take a minimum of 21 days.

Remember:

- > Players can only move on to Stage 2 once they are symptom free.
- > Players can only progress to the next stage once they have been symptom free for 24 hours.
- > Adult players must spend at least 24 hours in each stage, those under 20 must spend at least 48 hours in each stage.
- > Resistance training should be added only in the later stages (stage 3 or 4 at the earliest).
- > No contact until stage 5.

If symptoms are persistent (>1 month in children, >2 weeks in adults), the athlete should be referred to a healthcare professional who is an expert in the management of concussion.





INJURY PREVENTION IN RUGBY

Warm up:

Doing a 10-20minute structured warm-up before games and training has been shown to reduce injury rates.

Fitness:

Maintaining appropriate fitness will help insure that your body is ready for the demands of the game.

Mouth Guards:

Mouth guards are essential for protecting against dental injuries and they may have some protective effect in concussion. It is therefore advisable to always wear a mouthguard when playing rugby.

Technique:

Work on improving your tackle technique may help reduce injury risk.

Play by the rules:

Foul play causes injury (e.g. high tackles).

BASELINE SCREENING

Clubs and schools may wish to complete baseline screening in order to help diagnose and manage concussion. The purpose of a baseline test is to determine a person's mental and physical abilities in the pre-season so that it can be used as a comparison following a suspected concussion later on.

The SCAT5 or Child SCAT5 test can be used by a healthcare professional for this purpose. The SCAT should not be used in isolation. A number of factors need to be considered in conjunction with the SCAT including the players concussion history, their symptoms, the mechanism of injury, neurocognitive tests such as ImPACT (where available) and the healthcare practitioners own clinical judgement.

Please refer to:

> irishrugby.ie/concussion for links to the SCAT5 and Child SCAT as well as other relevant documents.

