

A Guide to Concussion in Amateur Rugby Union



This resource is for the
General Public
*involved in amateur
rugby in Ireland.*



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

RECOGNISE AND REMOVE





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The aim of this brochure is to provide information on concussion to those involved in Rugby Union in Ireland.

What is Concussion?

Sports-related concussion is a **traumatic brain injury** that is caused by a direct blow to the head, neck or body resulting in an impulsive force being transmitted to the brain. Concussion results in an impairment of brain function. Signs and symptoms may present immediately. However, in some cases signs and symptoms may evolve over a number of minutes or hours, up to 48 hours following the injury. Signs and symptoms commonly resolve within days but may be prolonged.

What Causes it?

Concussion can be caused by a direct 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.

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.
- ▶ **Delayed removal from play and delayed access to healthcare professionals can increase the length of time before a player is able to fully return to sport.**
- ▶ Returning to play before complete resolution of the concussion and without completion of the IRFU Graduated Return to Play (G RTP) Protocol increases the risk of recurrent concussions, that might take place with ever decreasing forces.
- ▶ Repeated concussions could mean that a player must stop playing all contact sports earlier than expected and may have some potential to result in permanent neurological (brain) impairment

How Common is Concussion?

The Irish Rugby Injury Surveillance (IRIS) Project reports average concussion rates of:

- ▶ 6.4/1,000 player hours in the Senior men's game
- ▶ 4.9/1,000 player hours in the Senior women's game
- ▶ 7.5/1,000 player hours in the School's (SCT) game

This equals approximately:

- ▶ 1 concussion every 3–4 matches in men's/school's game
- ▶ 1 concussion every 5 matches in the women's game





Latest Concussion Facts:

- 💡 You **do not have to lose consciousness to** sustain a concussion.
 - ▶ Less than 1 in 10 concussions involve a loss of consciousness.
- 💡 You **do not have to have a direct blow to the head** to sustain a concussion.
 - ▶ Concussion can be caused by a direct blow to the head, neck or body, or from a whiplash type movement.
- 💡 The effects of concussion **cannot be seen on standard x-ray, CT scan or MRI.**
- 💡 Concussions **can occur in a match or at training.**
- 💡 The onset of concussion **symptoms may be delayed** for up to 24–48 hours.
- 💡 **Early recognition and removal** from play improves recovery timelines.
- 💡 **Early assessment and treatment** by a healthcare professional with experience in concussion improves recovery timelines.
- 💡 **Concussion is treatable.**
 - ▶ Several effective treatments are available especially if symptoms last more than a few days. Treatment should be tailored to each player depending on their symptoms.
- 💡 **Early light physical and mental activity** treats symptoms and helps recovery.
 - ▶ Prolonged rest delays recovery.
- 💡 **Symptoms generally resolve over a period of days** or weeks, but sometimes can be prolonged.

Evidence shows 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 following the injury and getting help from healthcare professionals with experience in concussion, you can fully recover from concussion. Immediate removal from the field of play and early access to healthcare professionals with experience in concussion management have been shown to improve recovery.

- ⚠️ Playing on even for **just 5 minutes** after sustaining a concussion can delay full return to sport by approximately **3 days**.
- ⚠️ Young adults who continue playing on with signs or symptoms of a concussion are **nine times** more likely to have a delayed recovery **more than 21 days**.

Early access to healthcare professionals with experience in concussion assessment and management can help recovery timelines.



How to Recognise Concussion

Concussion can be recognised both immediately after a suspected event or in the following 48 hours. There are a number of signs (what we see) and symptoms (what the player feels) of concussion. We may observe these signs and symptoms in three circumstances:

1. When watching a player from the sideline
2. When attending a player on the pitch / off-field
3. When assessing a player after the match has finished



If a player displays any ONE of the following signs or symptoms, they must be **immediately removed from play and must not return that day.**

1 WHAT YOU MAY SEE WHEN WATCHING A PLAYER FROM THE SIDELINE (SIGNS)

- ▶ Actual loss of consciousness / suspected loss of consciousness
- ▶ Seizure (fit) or convulsion
- ▶ Tonic posturing (abnormal movement of arms or legs)
- ▶ Balance problems / falling over / unsteady on feet (ataxia)
- ▶ Lying motionless on ground
- ▶ Grabbing / clutching head
- ▶ Slow to get up / tripod (on hands and knees for support)
- ▶ Unsteady on feet

2 WHAT YOU MAY NOTICE WHEN YOU ATTEND THE PLAYER ON THE PITCH (SIGNS)

- ▶ Confusion / dazed
- ▶ Disorientated
- ▶ Player is 'just not right'
- ▶ Player is more emotional / behavioural changes
- ▶ Complaining of any of the signs and symptoms listed above

3 HOW A PLAYER TELLS YOU THEY ARE FEELING EITHER ON OR OFF THE PITCH (SYMPTOMS)

- | | |
|-------------------------------------|------------------------------------|
| ▶ Nausea (feeling sick) or vomiting | ▶ "Doesn't feel right" |
| ▶ Headache | ▶ Feeling slowed down / "in a fog" |
| ▶ Dizziness | ▶ "Pressure in head" |
| ▶ Irritability | ▶ Blurred vision |
| ▶ Drowsiness | ▶ Sensitivity to light |
| ▶ Sadness | ▶ Amnesia (memory loss) |
| ▶ Fatigue or low energy | |
| ▶ Player is more nervous or anxious | |



POST GAME

Signs and symptoms usually present immediately at the time of injury, but the onset of these could be delayed and **may not appear until 24–48 hours later**. Players with a suspected concussion should be monitored by a responsible adult in case any signs or symptoms occur.

How a player tells you they are feeling (SYMPTOMS), or you may notice (SIGNS)

- ▶ Any of the signs and symptoms listed above
- ▶ Drowsiness
- ▶ Fatigue or low energy
- ▶ Amnesia (memory loss)
- ▶ Trouble sleeping
- ▶ Trouble concentrating
- ▶ Feeling slowed down
- ▶ Slowed reaction times

! There is no such thing as a minor concussion or 'knock to the head'





More Serious Head Injuries

Remember, not all head injuries are concussions. If a player has a more serious head injury or neck injury you may observe the **RED FLAGS** listed below.

If you are concerned that a player has a serious head injury you should assume they may also have a serious neck injury, until medically cleared.



RED FLAGS FOR MORE SERIOUS HEAD INJURY

The following are **RED FLAGS** you may observe if the player has a more serious head injury at the time of the injury or later on:

- ▶ Unresponsive or becoming less alert
- ▶ Seizures (fits) or convulsions
- ▶ Loss of vision or double vision
- ▶ More than one episode of vomiting
- ▶ Severe or increasing headache
- ▶ Increasing or worsening of any symptom of the concussion

RED FLAGS FOR SERIOUS SPINAL (NECK) INJURY

The following are **RED FLAGS** for a more serious spinal injury:

- ▶ Player is unresponsive
- ▶ Significant neck pain or tenderness
- ▶ Reluctant to move
- ▶ Loss of normal sensation or movement in the arms or legs (weakness or numbness / tingling)

 **If a player has a 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 IRFU SAFE Rugby Level 1 and 2 training can show you how to appropriately manage potential spinal injuries until an ambulance arrives.

If there is any RED FLAG:

- ▶ Call an ambulance
- ▶ Do not move an unconscious player unless in harm's way
- ▶ Do not move a player with suspected serious spinal injury
- ▶ Player should be medically assessed as soon as possible



Concussion Recognition Tool

The **Concussion Recognition Tool** was developed by the Concussion in Sport group to help identify the signs and symptoms of concussion. It can be used by healthcare professionals and non-healthcare professionals to help recognise concussion across all age groups and levels of play.

It is on the IRFU Guide to Concussion wallet card for easy access, and at the end of this document in the appendices.

There is no HIA (Head Injury Assessment) in the domestic game. Any player with a suspected / confirmed concussion should be removed from play and may not return that day.

Any assessment of a player with a suspected concussion should take place in a quiet distraction free environment such as the changing room or medical room, and not on the side of a pitch. If there is a suspicion that the player is confused or disorientated, they should be safely and immediately removed from the field, are not to return the same day and should have a further assessment.

The assessment cannot be used to determine if a player can go back on the field.

If there are any of the signs and symptoms mentioned above, or any reason to prompt a suspicion of concussion, the player must be removed and cannot return to play that day.





Different Types Of Concussion You May See or Experience

! NOT ALL CONCUSSIONS ARE THE SAME

Different types of concussion may require a specific treatment or management. For example an impact to the head or body may cause a disturbance to the inner ear (vestibular system) that can cause vertigo-type symptoms (dizziness, headaches, blurred vision, balance issues), and players experiencing these symptoms should see a healthcare professional trained in the assessment and management of vestibular issues. Similarly, many symptoms of concussion could also be caused by issues with the neck (headaches, dizziness, pain) and seeing a healthcare professional who can appropriately assess the neck can help with your recovery.

A thorough assessment can categorise a concussion based on the signs and symptoms. This can help direct effective and targeted treatment and rehabilitation. Currently, there are five concussion clinical profiles (types):

- ▶ **Cognitive / Fatigue:** Can cause trouble with prolonged or complex mental tasks and long days. It can cause increased fatigue as the day goes on. Cognitive issues include decreased concentration, decreased ability to multi-task, increased distractibility and trouble learning or retaining new information.
- ▶ **Vestibular:** Can cause trouble with balance, motion and vision. Impairment of the vestibular system (the balance centre of the brain) affects one's ability to coordinate head and eye movements, steady or balance vision and interpret motion.
- ▶ **Ocular:** Can cause trouble with visual tasks like reading, looking at a computer screen or mobile phone.
- ▶ **Migraine:** Can cause changes in your normal routine such as sleeping in or avoiding loud concerts or sporting events. Symptoms include headache, nausea and sensitivity to light or noise.
- ▶ **Anxiety / Mood:** Can make it hard to turn your thoughts off and causes excessive worry or concern. This can cause problems with social interactions and may worsen if you avoid routine activities because of your concussion.

A combination of medical history, individual risk factors, injury information and assessments of the neck and sleep can help inform the concussion clinical profile. Some profiles may overlap, and assessment of these profiles will help direct the most effective treatment.

Different concussion types will require different treatment and management. An active targeted treatment programme may enhance recovery.



If you are unsure where to seek advice, contacting a concussion specialist (e.g. the UPMC Concussion Network in Ireland) may be a good starting point to help direct players to targeted interventions more appropriate to the player's concussion.



What to Do if You Suspect a Concussion

RECOGNISE AND 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 player's welfare is always the primary concern.
- 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 player's suspected concussion.
- They **MUST NOT** drive a vehicle in the first 24 hours.
- They **MUST NOT** consume alcohol in the first 24 hours.
- They should be medically assessed **as soon as possible**. Early medical management can help with recovery and return to sport.
- They **MUST NOT** return to play before completing the IRFU GRTP Protocol. Remember that this means that the player should not return to any sport, not just rugby, without carefully completing the GRTP Protocol.

Leaving the pitch immediately can help with management and recovery from concussion.

Playing on for even 5 minutes after a concussion can delay your return to play by 3 days.

! If the coach is concerned that a player may have sustained a more serious head injury and there is no healthcare professional present, they should call for the assistance of an ambulance.

Your Role in Managing a Suspected Concussion

(See Appendix 2)



PLAYER

- ▶ **Recognise and remove: if you feel you may have sustained a concussion, alert your coach / referee / team medic / parent and do not play on.**
- ▶ You should be honest and report all signs and symptoms.
- ▶ You should never attempt to continue playing: leaving the pitch immediately can help with management and recovery from concussion.
- ▶ Playing on for even 5 minutes after a concussion can delay your return to play by 3 days.
- ▶ Young players who continue playing on with signs or symptoms of a concussion are nine times more likely to have a delayed recovery longer than 21 days.

REFEREE

- ▶ **Recognise and remove: if you notice that a player appears to have sustained a concussion you must safely remove them from the field immediately.**
- ▶ Law 3 supports your decision to remove any player with a suspected head injury from the field of play under 'Recognise and Remove'.
- ▶ Clearly communicate with team management that you are removing a player with a suspected concussion, so that the player is appropriately cared for and handed over to a responsible adult when they leave the rugby pitch.
- ▶ Complete the online IRFU Concussion Education to help you to identify the signs and symptoms of concussion each season.

FRIEND

- ▶ **Recognise and remove: if you notice that your teammate is acting differently and you are concerned that they may have sustained a concussion, tell your coach immediately.**
- ▶ Encourage your teammate to be honest about their symptoms and to report them immediately.

COACH

- ▶ **Recognise and remove: if you notice that a player appears to have sustained 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 the same day.
- ▶ Hand the player over to a responsible adult when they leave the rugby pitch.
- ▶ Inform the player's parents / guardians 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.
- ▶ You or your team medic should complete 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](https://www.irfu.ie/concussion).

PARENT / GUARDIAN

- ▶ **Recognise and remove: if you are watching your child playing and feel that they may have sustained a concussion you should speak to the referee or coach to stop the game or ensure your child is taken off safely at the next break in play and monitored for all signs and symptoms of concussion.**
- ▶ Do not let them return to play the same day.
- ▶ Monitor them for signs and symptoms of concussion for 48 hours.
- ▶ Ensure they complete the IRFU GRTP Protocol before returning to any competitive contact sport. Your child should not return to contact games until they have completed the GRTP process.
- ▶ Ensure a return to school is prioritised before return to sport.



Acute Concussion Management

General Recovery Best Practices

Throughout the GRTP Protocol, there are a number of simple things that can positively influence recovery following a concussion. These practices are applicable throughout the GRTP Protocol.



AT THE TIME OF INJURY

- **Stop playing immediately after sustaining a concussion or suspected concussion:**
Delayed removal can increase the time until symptom-free and full return to sport.
- **Early medical assessment:**
Delayed access to a healthcare professional, for appropriate assessment and management of concussion symptoms can increase the time until symptom-free and full return to sport.



IN THE FIRST 48 HOURS POST INJURY

- **Early light physical and mental activity can treat concussion symptoms and help recovery:**
Avoid STRICT physical and cognitive rest in the first 24-48 hours.
- **Reduce screen-time in the first 48 hours:**
Screen-time (phones, laptops etc.) should be reduced in the first 48 hours, however there is little additional benefit of reducing screen-time beyond this.
- **Avoid HIGH intensity / vigorous exercise in the first 24-48 hours:**
Physical activity that strongly exacerbates symptoms should be avoided and can increase the time until you are symptom free and can fully return to sport.

IMPORTANT GENERAL ACTIONS DURING THE GRTP

MAINTAIN REGULAR SLEEPING PATTERN:

Players should try to maintain a normal sleep pattern (i.e. going to bed and waking at usual hours). Sleep disturbances can impair recovery from concussion.

MAINTAIN A HEALTHY DIET:

Maintain your normal eating regime. A healthy diet should include foods rich in quality protein, complex carbohydrates, essential fats, fibre, fruit and vegetables, and can support cognitive function, help with recovery and sleep quality. Advice on nutrition for rugby players can be found on www.irishrugby.ie

REMAIN SOCIALLY INTERACTIVE:

Players should be encouraged to keep engaged with the squad, even rehabbing at team training times to help with mental health and well-being. Players should avoid any training activities where there is a risk of a head impact event, until medically assessed to do so by a healthcare professional at the appropriate time in the GRTP.

RETURN TO LEARN/WORK SHOULD BE PRIORITISED PRIOR TO FULL RETURN TO SPORT:

Most young athletes (93%) will have full return to school by day 10 post injury. Players should not be fully returning to sport if they have not fully returned to school or work.



Recovery From Concussion

Normal clinical recovery of symptoms in adults is 10 –14 days, in children it may take up to four weeks

Persisting symptoms (>4 weeks across all age groups) may be:

- ▶ **Pre-existing** (i.e. players with a history of migraines)
- ▶ **Concussion-related** (i.e. a sign/symptom requiring specific intervention)
- ▶ **Both pre-existing and related to the current concussion**

Initial symptom severity is the strongest predictor of length of time for full recovery and return to play. Some players will take longer than 4 weeks to recover fully and may benefit from an individualised treatment and rehabilitation plan from a healthcare professional experienced in managing concussion.

The earlier a player is removed and the earlier they are assessed by a doctor or physiotherapist experienced in concussion, the better for a player's recovery. It is important that any player with a suspected concussion is immediately removed from play and appropriately assessed and managed. Playing on, even for five minutes, can delay full return to sport by three days. In addition, young players who continue playing on with signs or symptoms of a concussion are nine times more likely to have a delayed recovery longer than 21 days.

PLAYERS SHOULD NOT RETURN TO PLAY UNTIL THEY:

| | | | |
|--|-------------------------|---|--|
| Have returned to learn / work | Are symptom- free | Have completed the GRTP Protocol | Have been assessed by a healthcare professional |
|--|-------------------------|---|--|



When to see a Healthcare Professional

In some cases, medical intervention may be required during the player's recovery from concussion. Where possible, a healthcare professional with experience managing sports-related concussion should be sought. The healthcare professional should be registered with their respective governing body (i.e. Corú, CSP, ARTI, etc.) and work within their scope of practice.

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 GRTP protocol while taking any medications that may mask symptoms.

CONSIDER SEEKING MEDICAL ADVICE IN THE FOLLOWING SITUATIONS:

If you are on medications such as pain killers, anti-depressants and / or sleeping medication.

- ▶ Medications may mask the symptoms of the concussion.
- ▶ Medical advice around the GRTP protocol may be needed.

If you have 2 or more concussions in a 12-month period.

- ▶ See a medical specialist with experience of managing sports-related concussion.

If you have symptoms beyond Day 10-14 of the GRTP Protocol.

- ▶ See a medical specialist with experience of managing sports-related concussion.

If you have symptoms continuing to occur with a specific activity within the GRTP Protocol.

- ▶ See a medical specialist with experience of managing sports-related concussion.

If you are failing to improve or progress through the GRTP as expected.

- ▶ See a medical specialist with experience of managing sports-related concussion.



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, so it is important to advise the school about the concussion incident.

The table below has been taken from the 6th *International Consensus Conference on Concussion in Sport*, Amsterdam 2022 and provides a structure to help students return to learn following a concussion. This can be used as a guideline, in conjunction with the school's guidelines, to ensure a safe and efficient full return to school activities.

| STAGE | ACTIVITY | GOAL |
|--|---|--|
| 1. Daily activities that do not result in more than a mild exacerbation of symptoms | Typical activities during the day (e.g., reading) while minimising screen time. Start with 5–15 min at a time and increase gradually. | 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 greater access to rest breaks during the day. | Increase academic activities |
| 4. Return-to-school full-time | Gradually progress school activities until a full day can be tolerated without more than mild symptom exacerbation. | Return to full academic activities and catch up on missed work |

In the first 24–48 hours, early light physical and mental activity can treat concussion symptoms and help recovery. STRICT absolute rest (cocooning) should be avoided as this delays recovery. However, it is advised that players reduce screen-time (i.e. phones, laptops etc.) in the first 48 hours but there is little additional benefit of reducing screen-time beyond this.

Players can begin to gradually progress and increase their mental and physical load, provided their symptoms at rest are <7/10 on the symptom scale (See VAS in Appendix 3) and are only mildly exacerbated (less than a 2-point increase on a 10-point scale and resolves within 60 minutes).

Returning to Sport (also see IRFU GRTP Protocol for full detailed description and examples)

When a player sustains a concussion, they enter into the Graduated Return to Play (GRTP) protocol. This takes a minimum of 21 days to complete for adults and 23 days for U20s. It gradually returns the player to their previous level of activity in a safe and structured manner. The GRTP protocol 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 a player by their medical practitioner. The GRTP also boosts physiological recovery through low intensity exercise and provides a development opportunity to improve rugby-specific skills e.g. tackle technique.



GRTP BENEFITS

- ▶ Returns players to full rugby participation and performance efficiently and safely
- ▶ Forms part of the management guidelines for the treatment of concussion
- ▶ Low intensity exercise in first 48 hours promotes early-stage recovery
- ▶ Low intensity exercise in first 48 hours prevents persistent symptoms
- ▶ Detects any symptoms early to direct additional appropriate medical treatment
- ▶ Minimises risk of injury recurrence or subsequent injury

Players should work with their coach / parent / teacher to ensure that they complete each stage appropriately and achieve all physical, rugby-specific and contact-specific competencies. The latest IRFU GRTP Protocol is a proactive approach to safely and efficiently returning players to the game. These updated guidelines can be found on www.irishrugby.ie/concussion, 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.

| STAGE | | ACTIVITY | DAYS | | |
|---|--------------------------|---|--------|-------|-----------------------------|
| | | | ADULTS | U20 | |
| 1. | Symptom limited exercise | Daily activities that do not provoke symptoms Light aerobic linear activities | 0–1 | 0–1 | Concussion Treatment |
| 2. | Aerobic exercise | Progressively increase aerobic activity Moderate aerobic & light resistance activities | 2–6 | 2–6 | |
| 3. | Rugby specific exercise | Speed & skill work without risk of head impact Progressively challenging aerobic & resistance activities | 7–9 | 7–9 | |
| PLAYER MUST BE SYMPTOM-FREE AND SHOULD BE ASSESSED BY A HEALTHCARE PROFESSIONAL BEFORE ENTERING STAGE 4 | | | | | |
| 4. | Non-contact drills | Agility, decision making & complex skill work Progressively challenging rugby specific drills | 10–13 | 10–15 | Rugby-specific Competencies |
| 5. | Full contact practice | Full uncontrolled contact training Intense exercise & conditioning drills | 14 | 16 | |
| 6. | Return to play | Full unrestricted match play Full return to pre-injury status | 21 | 23 | |



REMEMBER

Early light mental and physical activities can help recovery.

Avoid **STRICT** rest in the first 24–48 hours.

Players can progress through Stages 1–3 as long as:

- ▶ Symptoms at rest are less than a 7/10 on the symptom scale (See VAS in Appendix 3).
- ▶ Symptoms are only mildly exacerbated by activity (less than a 2-point on the symptom scale, for less than 60 minutes).

Players can only progress through Stages 4–6 as long as:

- ▶ They are symptom-free at rest and after activity.
- ▶ Have an assessment by a healthcare professional prior to progressing on to stage 4.

How to Lessen Your Risk of Injury

ENGAGE

The IRFU Readiness and Robustness programme can help prepare players for the demands of the game and reduce the risk of injury.

TACKLE TECHNIQUE

The majority of concussion injuries occur in the tackle, with the tackler at a higher risk of injury. Improving your tackle technique may help reduce injury risk.

MOUTH GUARDS

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

PLAY BY THE RULES

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





Medical Concussion Assessments

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. Clubs and schools may wish to complete baseline screening to help diagnose and manage concussion.

The SCAT6 or Child SCAT6 test are tools used by a healthcare professional for this purpose. The SCAT should be used in the first 72 hours following the injury. The SCAT assessment tool should not be used in isolation. Several factors should be considered in conjunction with the SCAT including the player's concussion history, relevant medical history, their symptoms, the mechanism of injury, neurocognitive tests such as ImPACT (where available) and the healthcare practitioners own clinical judgement.

EMERGING TECHNOLOGIES

At time of writing, current technologies (e.g. neuroimaging, biomarkers, genetic testing, instrumented mouthguards) have little evidence to support or recommend their use in routine clinical practice.

Please click [here](#) for links to the SCAT6, Child SCAT6, as well as the latest IRFU GRTP Protocol and other relevant documents.



Concussion Recognition Tool

Appendix 1



CRT6™

Concussion Recognition Tool

To Help Identify Concussion in Children, Adolescents and Adults



What is the Concussion Recognition Tool?

A concussion is a brain injury. The Concussion Recognition Tool 6 (CRT6) is to be used by non-medically trained individuals for the identification and immediate management of suspected concussion. It is not designed to diagnose concussion.

Recognise and Remove

Red Flags: CALL AN AMBULANCE

If **ANY** of the following signs are observed or complaints are reported after an impact to the head or body the athlete should be immediately removed from play/game/activity and transported for urgent medical care by a healthcare professional (HCP):

- Neck pain or tenderness
- Seizure, 'fits', or convulsion
- Loss of vision or double vision
- Loss of consciousness
- Increased confusion or deteriorating conscious state (becoming less responsive, drowsy)
- Weakness or numbness/tingling in more than one arm or leg
- Repeated Vomiting
- Severe or increasing headache
- Increasingly restless, agitated or combative
- Visible deformity of the skull

Remember

- In all cases, the basic principles of first aid should be followed: assess danger at the scene, check airway, breathing, circulation; look for reduced awareness of surroundings or slowness or difficulty answering questions.
- Do not attempt to move the athlete (other than required for airway support) unless trained to do so.
- Do not remove helmet (if present) or other equipment.
- Assume a possible spinal cord injury in all cases of head injury.
- Athletes with known physical or developmental disabilities should have a lower threshold for removal from play.

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If there are no Red Flags, identification of possible concussion should proceed as follows:

Concussion should be suspected after an impact to the head or body when the athlete seems different than usual. Such changes include the presence of **any one or more** of the following: visible clues of concussion, signs and symptoms (such as headache or unsteadiness), impaired brain function (e.g. confusion), or unusual behaviour.

CRT6

Concussion Recognition Tool

To Help Identify Concussion in Children, Adolescents and Adults



1: Visible Clues of Suspected Concussion

Visible clues that suggest concussion include:

- Loss of consciousness or responsiveness
- Lying motionless on the playing surface
- Falling unprotected to the playing surface
- Disorientation or confusion, staring or limited responsiveness, or an inability to respond appropriately to questions
- Dazed, blank, or vacant look
- Seizure, fits, or convulsions
- Slow to get up after a direct or indirect hit to the head
- Unsteady on feet / balance problems or falling over / poor coordination / wobbly
- Facial injury

2: Symptoms of Suspected Concussion

| Physical Symptoms | Changes in Emotions |
|-------------------------|---------------------|
| Headache | More emotional |
| "Pressure in head" | More irritable |
| Balance problems | Sadness |
| Nausea or vomiting | Nervous or anxious |
| Drowsiness | |
| Dizziness | |
| Blurred vision | |
| More sensitive to light | |
| More sensitive to noise | |
| Fatigue or low energy | |
| "Don't feel right" | |
| Neck Pain | |

| Changes in Thinking |
|--------------------------|
| Difficulty concentrating |
| Difficulty remembering |
| Feeling slowed down |
| Feeling like "in a fog" |

Remember, symptoms may develop over minutes or hours following a head injury.

3: Awareness

(Modify each question appropriately for each sport and age of athlete)

Failure to answer any of these questions correctly may suggest a concussion:

- "Where are we today?"
- "What event were you doing?"
- "Who scored last in this game?"
- "What team did you play last week/game?"
- "Did your team win the last game?"

Any athlete with a suspected concussion should be - IMMEDIATELY REMOVED FROM PRACTICE OR PLAY and should NOT RETURN TO ANY ACTIVITY WITH RISK OF HEAD CONTACT, FALL OR COLLISION, including SPORT ACTIVITY until ASSESSED MEDICALLY, even if the symptoms resolve.

Athletes with suspected concussion should **NOT**:

- Be left alone initially (at least for the first 3 hours). Worsening of symptoms should lead to immediate medical attention.
- Be sent home by themselves. They need to be with a responsible adult.
- Drink alcohol, use recreational drugs or drugs not prescribed by their HCP
- Drive a motor vehicle until cleared to do so by a healthcare professional

CRT6™

Developed by: The Concussion in Sport Group (CISG)

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Appendix 2

Responsibilities and Checklists for The Season



APPENDICES

COACH

Complete the IRFU Concussion Education module for coaches.

Attend a SAFE Rugby Course.

If your player sustains a suspected concussion, remove the player immediately and safely.

Hand the player over to a responsible adult on the side-line to observe during the game.

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

Tell parents about incident, document on IRFU Concussion wallet card and advise on the GRTP.

Fill out an injury report form and retain a copy for your record:

Injury Reporting: www.irishrugby.ie/playingthegame/medical.php

Guide player through rugby- and position-specific skills, and tackle competencies, as outlined in the IRFU GRTP Protocol.

Players may not return for a minimum of 21 days for adults and 23 days for U20s.

REFEREE

Complete the IRFU Concussion Education module for referees.

If a player sustains a suspected concussion, **remove the player immediately and safely under Law 3 'Recognise and Remove'**.

Inform the coach / team management that the player is being removed with a suspicion of concussion.

Ensure they hand the player over to a responsible adult on the side-line to observe during the game.

Fill out a Referee Injury Report form through your provincial branch.

PARENT

Get full details of event if you were not present or did not witness it.

Observe the player over the next 24-48 hours and if symptoms worsen contact your local accident and emergency department.

Ensure the player does not drink alcohol or drive in the first 24 hours.

The player should be medically assessed as soon as possible.

Encourage player to honestly report any symptoms, as this is the best predictor to help with recovery and full return to sport.

Encourage reduced mental and physical activity in the first 24-48 hours but avoid STRICT absolute rest (i.e. cocooning).

Inform school and other sports that your child has sustained a concussion and will enter the IRFU GRTP protocol.

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

Prioritise a return to school before progressing to Stage 4 of the GRTP Protocol.

Appendix 3



APPENDICES

The Symptom Scale

The below table is a simple tool for healthcare professionals, coaches or players to monitor their symptoms during their recovery from concussion. Symptoms should be <7/10 on the symptom scale (visual analogue scale; VAS) to progress with physical activity during Stages 1-3. Symptoms at rest should be rated from 0-10 prior to activity and then after. Mild symptom exacerbation is considered a 2-point increase from the pre-activity rating and resolves within 60 minutes. During Stages 1-3, if symptom exacerbation is more than mild, players should stop the new activity that brought on the system and recommence this activity the following day. Other activities that are not provoking symptoms may be continued. Players should be symptom free at rest and after exercise during Stages 4-6. If any signs or symptoms develop during the activities in Stages 4-6, the player should stop and return to Stage 3 until symptom-free.

| VAS | PRE-ACTIVITY (AT REST) | DURING/POST-ACTIVITY |
|---|------------------------|----------------------|
| 1. No Symptoms | | |
| 2. | | |
| 3. | | |
| 4. | | |
| 5. | | |
| 6. | | |
| 7. | | |
| 8. | | |
| 9. | | |
| 10. Severe Symptoms (as bad as can possibly be) | | |



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