

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.

What causes concussion?

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.
- 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 to recognise a concussion

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

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

When you talk to the player they may be:

- Confused
- Disorientated
- Nervous / anxious / irritable
- More emotional / angry / crying / sad
- 'just not themselves'

What the player may complain of:

- Headache
- Dizziness
- Nausea (feeling sick) or vomiting
- 'Pressure in head'
- Blurred vision
- 'Doesn't feel right'
- Confused or can't remember
- Feeling like 'in a fog'
- Sensitivity to light

Later on (at home or next day), 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

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.

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 is 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).



SIGNS AND SYMPTOMS OF CONCUSSION

HOW YOU ARE THINKING (COGNITIVE)

- Feeling Mentally foggy
- Difficulty concentrating
- Difficulty remembering
- Repeats Questions
- Mentally Slowed Down
- Forgetful
- Confused

HOW IS YOUR MOOD (EMOTIONAL)

- Irritability
- Sadness
- More Emotional
- Nervousness

SLEEP

- Drowsiness
- Sleeping Less than usual
- Sleeping More than usual
- Trouble Falling asleep

PHYSICAL

- Headache
- Nausea/Vomiting
- Balance Problems
- Numbness/Tingling
- Sensitivity to light/noise
- Visual Problems
- Dizziness
- Dazed or Stunned

Head Injury Card:

PLAYER NAME

has had a suspected concussion on:

DATE AND TIME

VENUE

Describe event:

Symptoms:

Completed by:

NAME

ROLE

Red flags for more serious head injury

- Unresponsive or becoming less alert.
- More than 1 episode of vomiting.
- Increasing or worsening of any complaint.

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.

Red flags for spinal injury

- Player is unresponsive.
- Significant neck pain.
- Reluctant to move.
- Loss of normal sensation or movement.

Why MUST concussion be taken extremely seriously?

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

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'.



A GUIDE TO CONCUSSION IN RUGBY UNION



Graduated return-to-play (GRTP) strategy

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. - Daily activities that do not provoke symptoms e.g. walking at a comfortable pace, breathing slightly increased.	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.
Stage 1b 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.)		Stage 1b 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.)
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.	Day 15	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 16	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)
Stage 4 Non-Contact Rugby - Training drills - High level balance tasks - May start progressive resistance training. NO CONTACT	Day 17 - 18	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)
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 Return to normal game play.	Day 21	Stage 5 Full contact practice following medical clearance, participate in normal training activities.
	Day 22	
	Day 23	Stage 6 Return to normal game play.

No resistance training until stage 3.
No contact until stage 5, following medical clearance.



RECOGNISE AND REMOVE

The GRTP may take longer than the minimum period stated.

Players can only move on to the next stage once they have been symptom free during the full period of each stage. If they are not symptom free they must stay at that stage until they are. Symptoms may be masked by medications such as pain killers, anti-depressants and /or sleeping medication.

Players cannot return to play until they:

- Are symptom free
- Have completed the GRTP
- Have been medically cleared to return

For further details on GRTP please see the IRFU website and the IRFU GRTP Wallet card

What the coach must do:

- Safely remove player from field of play.
- Observe or assign responsible adult to monitor player.
- Ensure player gets home safely.
- Handover to responsible adult.
- If player is U18 contact parent or guardian to inform of injury.
- Ensure an IRFU Injury report form is completed.
- Follow the IRFU GRTP.

What the player must do:

- Stop playing / training if you feel you have a suspected concussion.
- Be honest with how you feel and report to coach or parent.
- Inform your school / work.
- Follow the IRFU GRTP.
- Encourage a teammate to be honest and report symptoms if they have a suspected concussion.

What the parent/guardian or family member must do:

- Ensure you have full details of the incident.
- Get player medically assessed.
- Monitor player for signs and symptoms of concussion for 48 hours.
- Encourage mental and physical rest for first 24-48.
- Inform school / work / other sports of the suspected concussion.
- Ensure player follows the IRFU GRTP.

CONCUSSION RECOGNITION TOOL 5®

To help identify concussion in children, adolescents and adults



RECOGNISE & REMOVE

Head impacts can be associated with serious and potentially fatal brain injuries. The Concussion Recognition Tool 5 (CRT5) is to be used for the identification of suspected concussion. It is not designed to diagnose concussion.

STEP 1: RED FLAGS – CALL AN AMBULANCE

If there is concern after an injury including whether ANY of the following signs are observed or complaints are reported then the player should be safely and immediately removed from play/game/activity. If no licensed healthcare professional is available, call an ambulance for urgent medical assessment:

- Neck pain or tenderness
- Double vision
- Weakness or tingling/ burning in arms or legs
- Severe or increasing headache
- Seizure or convulsion
- Loss of consciousness
- Deteriorating conscious state
- Vomiting
- Increasingly restless, agitated or combative

Remember:

- In all cases, the basic principles of first aid (danger, response, airway, breathing, circulation) should be followed.
- Assessment for a spinal cord injury is critical.
- Do not attempt to move the player (other than required for airway support) unless trained to do so.
- Do not remove a helmet or any other equipment unless trained to do so safely.

If there are no Red Flags, identification of possible concussion should proceed to the following steps:

STEP 2: OBSERVABLE SIGNS

Visual clues that suggest possible concussion include:

- Lying motionless on the playing surface
- Slow to get up after a direct or indirect hit to the head
- Disorientation or confusion, or an inability to respond appropriately to questions
- Blank or vacant look
- Balance, gait difficulties, motor incoordination, stumbling, slow laboured movements
- Facial injury after head trauma

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STEP 3: SYMPTOMS

- Headache
- "Pressure in head"
- Balance problems
- Nausea or vomiting
- Drowsiness
- Dizziness
- Blurred vision
- Sensitivity to light
- Sensitivity to noise
- Fatigue or low energy
- "Don't feel right"
- More emotional
- More Irritable
- Sadness
- Nervous or anxious
- Neck Pain
- Difficulty concentrating
- Difficulty remembering
- Feeling slowed down
- Feeling like "In a fog"

STEP 4: MEMORY ASSESSMENT

(IN ATHLETES OLDER THAN 12 YEARS)

- Failure to answer any of these questions (modified appropriately for each sport) correctly may suggest a concussion:
- "What venue are we at today?"
 - "Which half is it now?"
 - "Who scored last in this game?"
 - "What team did you play last week/game?"
 - "Did your team win the last game?"

Athletes with suspected concussion should:

- Not be left alone initially (at least for the first 1-2 hours).
- Not drink alcohol.
- Not use recreational/ prescription drugs.
- Not be sent home by themselves. They need to be with a responsible adult.
- Not drive a motor vehicle until cleared to do so by a healthcare professional.

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ANY ATHLETE WITH A SUSPECTED CONCUSSION SHOULD BE IMMEDIATELY REMOVED FROM PRACTICE OR PLAY AND SHOULD NOT RETURN TO ACTIVITY UNTIL ASSESSED MEDICALLY, EVEN IF THE SYMPTOMS RESOLVE

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Report the concussion / suspected concussion to: Club / school Go to the IRFU website for the up to date injury report form



How is concussion managed?

Recommendation: after a brief period of complete mental and physical rest (1-2 days), players should be encouraged to become **gradually more active** while staying below the activity level that brings on or worsens symptoms. Mild levels of symptom limited physical and cognitive (mental) activity should be introduced within 3-5 days whilst continuing to avoid contact sports.

Prolonged rest is not encouraged. Return to learn before return to play

When to seek medical advice

- If you have persistent or worsening symptoms consider seeing a physiotherapist as neck and vestibular rehabilitation may help individuals with neck pain, persistent dizziness and headaches or get a review by your GP.

- At time of injury

- Pre introduction / return to contact sport

- If a player has 2 or more concussions in a 12 month period they should be reviewed by a doctor with expertise in sports related concussion.