





## What is this wallet card and who is it for?

The IRFU Graduated Return To Play (GRTP) protocol guides the player through the seven rehabilitation stages following a concussion or suspected concussion. There are suggested activities in each stage which may be used to gradually increase the amount, intensity and/or type of exercise that the player does in order to ensure a safe and successful return to sport. The protocol may be used by players, coaches, parents, teachers or anyone who is helping a player get back to rugby following a concussion.

## How should it be used?

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**.



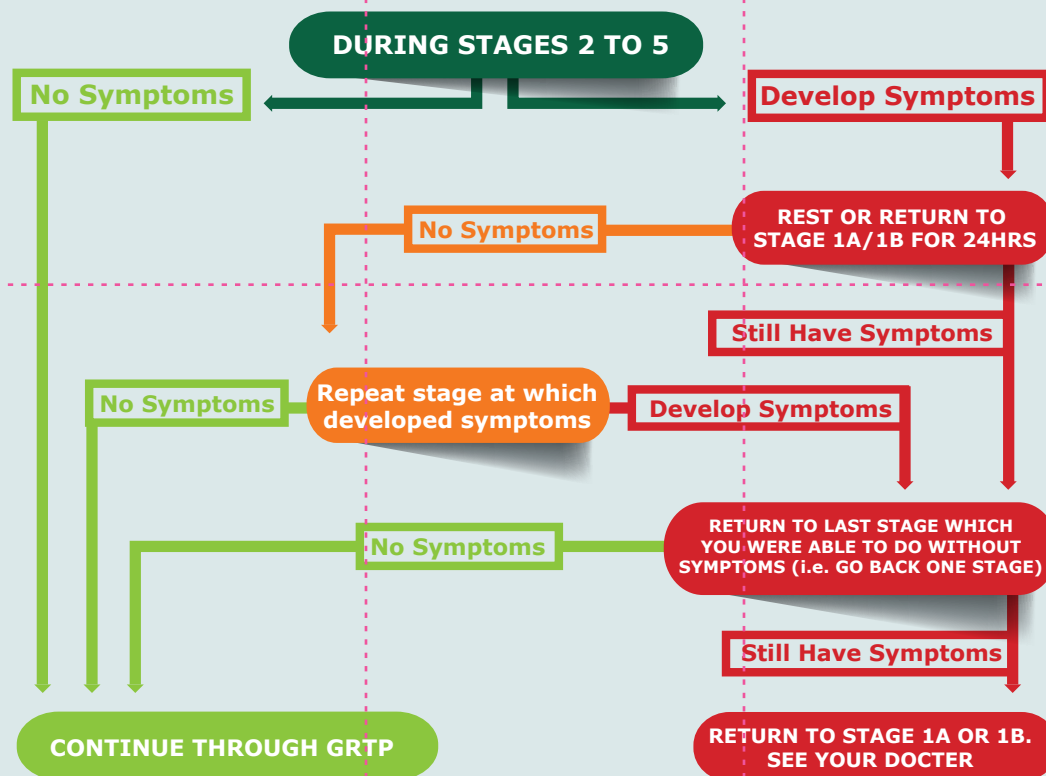
-  STOP
-  INFORM
-  REHAB
-  RETURN

# PROGRESSION THROUGH THE GRTP

## GUIDELINES

- **STAGE 0** starts at the time of injury and includes the following couple of days (i.e. Day 0 and Days 1-2). During this stage the player is resting and ensuring they do not do anything that brings on or worsens symptoms.
  - You can only progress to the next stage if you are symptom free during the activity of that stage and for 24 hours after it.
  - If you have symptoms during the activity or afterwards you should avoid any activity that brings on or worsens symptoms.
- Light exercise can commence in **STAGE 1**
- Players can only move on to **STAGE 2** once they are symptom free.
- If a player is asymptomatic at day 14 but symptoms had persisted for a significant period of time within **STAGE 1A & 1B**, it may be appropriate to seek medical advice on the rate at which the player should progress through **STAGES 2-6**.
- If symptoms have resolved then reattempt the same stage the next day.
- If symptoms persist return to and repeat the previous stage the next day.
- If you have continued symptoms then you cannot progress through the stages and you should see a health care professional.

If you get symptoms during **Stages 2 to 5** please follow the flow chart to see how to progress through the GRTP and when to see your doctor.



## PLAYERS SHOULD NOT RETURN TO PLAY UNTIL THEY:

- Are symptom free
- Have completed the **GRTP**
- Have sought medical clearance to return
- Have returned to learn/work

## INJURY PREVENTION IN RUGBY

**Warm Up:** Doing a 10-20 minute 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** are essential for protecting against dental injuries and they may have some protective effect in concussion. It is therefore advisable to always wear a mouth-guard 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).

## REMEMBER...

A player who has suffered from a concussion **should return to learn** (i.e. school/college) **or work before they return to play**. They should remain at Stage 1A or 1B and not progress to Stage 2 of the GRTP, if they have not returned to school or work due to their concussion.

## REMEMBER...

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 (21 day minimum to complete GRTP).

Those **under 20** must spend at least **48 hours** in each stage (23 day minimum to complete GRTP).



## 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 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.

## Recommendation

Return to learn before return to play. A young player who is in school or college should have returned to learn before progressing to Stage 2.

## Prolonged rest is not encouraged.

After a brief period of complete mental and physical rest (1-2 days), players should be encouraged to become gradually and progressively 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 2-5 days of injury whilst continuing to avoid contact sports.

## REMEMBER...

**There is no such thing as a mild concussion or 'knock to the head'**



## When to seek medical advice:

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

# GRADUATED RETURN TO PLAY TABLE

STAGE	ACTIVITY		ADULTS	U6 - U20s
<b>STAGE 0</b>	<b>REST:</b> Complete physical & cognitive rest. <i>Aim: Rest, ensuring no activity that brings on symptoms.</i>	<b>REST</b>	<b>Day 0</b> Day of injury	<b>Day 0</b> Day of injury
			<b>DAY 1-2</b>	<b>DAY 1-2</b>
<b>STAGE 1A</b>	<b>SYMPTOM LIMITED ACTIVITY:</b> Daily activities that do not provoke symptoms. Typical activities during the day as long as they do not increase symptoms (e.g. reading, screen time, light housework, walking). Start with 5-15 min at a time and gradually build up. <b>Borg Rating 6 - 10:</b> Walking at a comfortable pace, breathing slightly increased. Must not worsen symptoms. Heart Rate <50% maximum. Progress to next step when player has completed minimum 3 days at this level.	<b>SYMPTOM LIMITED ACTIVITY</b>	<b>DAY 2 OR 3</b>	<b>DAY 2 OR 3</b>
			<b>UP TO DAY 5-6</b>	<b>UP TO DAY 5-6</b>
<b>STAGE 1B</b>	<b>SYMPTOM LIMITED EXERCISE:</b> Exercise that does not provoke symptoms. Slowly build up the duration and intensity of the exercise. <b>Borg Rating 11 - 13.</b> Walking or jogging at a pace to cause minimal sweating, slight breathlessness and able to hold conversation. Non-contact activities. No resistance training. Must not worsen symptoms and heart rate <70% maximum. <i>Aim: Gradual reintroduction of work/school activities without worsening symptoms.</i>	<b>SYMPTOM LIMITED ACTIVITY</b>	<b>DAY 5-6</b> (at the earliest)	<b>DAY 5-6</b> (at the earliest)
			<b>UP TO DAY 14</b>	<b>UP TO DAY 14</b>
<b>PLAYERS SHOULD NOT PROGRESS TO STAGE 2 IF THEY ARE STILL SYMPTOMATIC.</b>				
<b>STAGE 2</b>	<b>INCREASED AEROBIC EXERCISE:</b> Exercise that causes increased heart rate and lasts for approximately 30-40mins. <b>Borg Rating 13 - 15.</b> Jogging / stationary bike at a pace to cause sweating, breathlessness and able to hold conversation with difficulty. Non-contact activities. No resistance training. Must remain symptom free. Heart Rate <80% maximum. <i>Aim: Increase intensity and duration of exercise.</i>	<b>INCREASED AEROBIC EXERCISE</b>	<b>DAY 15</b>	<b>DAY 15-16</b>
<b>STAGE 3</b>	<b>RUGBY SPECIFIC EXERCISE:</b> Begin to reintegrate to team training by introducing ball work and rugby specific drills but avoid contact. <b>Borg Rating 13 - 15.</b> Running drills building to max 60-80% effort (e.g. non-contact warm up with team). Balance exercises. Low level resistance training (e.g. body weight exercises). No head impact / contact activities. <ul style="list-style-type: none"> <li>• NO CONTACT</li> <li>• Individual handling skills</li> <li>• Static lateral Passing (unopposed/no decisions) 10-20m</li> <li>• Sverve run - 50/70% pace over 20m</li> <li>• Side step - 50/70% pace over 15m</li> <li>• Single leg standing with eyes closed</li> <li>• BOSU ball /wobble board exercises</li> <li>• Single-leg squat (5-10)</li> <li>• Cross arms squat (5-10)</li> <li>• Press-ups (5-10)</li> <li>• Resistance band exercises</li> </ul> <i>Aim: Add movement and challenge coordination and balance.</i>	<b>RUGBY SPECIFIC EXERCISE</b>	<b>DAY 16</b>	<b>DAY 17-18</b>
<b>STAGE 4</b>	<b>NON-CONTACT RUGBY TRAINING DRILLS:</b> Harder training drills; e.g. passing drills requiring increased cognition as well as physical exertion. High level balance tasks. May start progressive resistance training building to 60-70% 1rep maximum (1RM). <ul style="list-style-type: none"> <li>• NO CONTACT</li> <li>• Lateral passing (static opposition / cone) 10-20m</li> <li>• Dynamic lateral passing (e.g. 3v2 drill)</li> <li>• Position specific skills (e.g. kicking)</li> <li>• 'Superman' balance x 5</li> <li>• BOSU ball/wobble board exercises</li> <li>• Single leg hop (forward and lateral) 6-8 each leg</li> <li>• Single leg balance lateral passing (5 reps each side over 3-5m)</li> </ul> <i>Aim: Exercise that challenges coordination and requires increased concentration</i>	<b>NON-CONTACT RUGBY TRAINING DRILLS</b>	<b>Day 17-18</b>	<b>Day 19-20</b>
<b>MEDICAL CLEARANCE SHOULD BE SOUGHT BEFORE ADVANCING TO STAGE 5.</b>				
<b>STAGE 5</b>	<b>FULL CONTACT PRACTICE:</b> Following medical clearance, participate in normal training activities and full contact practice. <i>Aim: Restore confidence and assess functional skills by coaching staff.</i>	<b>FULL CONTACT PRACTICE</b>	<b>Day 19-20</b>	<b>Day 21-22</b>
<b>STAGE 6</b>	<b>NORMAL GAME PLAY.</b> If all previous stages have been completed successfully then the player may return to play on this day. Adults take a minimum of 21 days and U20s take a minimum of 23 days to progress through the GRTP.	<b>NORMAL GAME PLAY</b>	<b>Day 21</b>	<b>Day 23</b>



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USE THIS CHART TO GUIDE EXERCISE INTENSITY AT EACH STAGE.

## 20 Point Borg Scale

Rate of Perceived Exertion (RPE)

Point	Effort	Description	% of Max Heart Rate
6	No Exertion	Little to no movement, very relaxed	20%
7	Extremely Light	Able to maintain pace	30%
8			40%
9	Very Light	Comfortable and breathing harder	50%
10			55%
11	Light	Minimal sweating, can talk easily	60%
12			65%
13	Somewhat Hard	Slight breathlessness, can talk	70%
14		Increased sweating, still able to hold conversation but with difficulty	75%
15	Hard	Sweating, able to push and still maintain proper form	80%
16			85%
17	Very Hard	Can keep a fast pace for a short time period	90%
18			95%
19	Extremely Hard	Difficulty breathing, near muscle exhaustion	100%
20	Maximally Hard	STOP exercising, total exhaustion	

Please refer to **IRFU Guide to Concussion Wallet card** or **the IRFU Guide to Concussion online pdf** for information on recognising a concussion or suspected concussion.

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