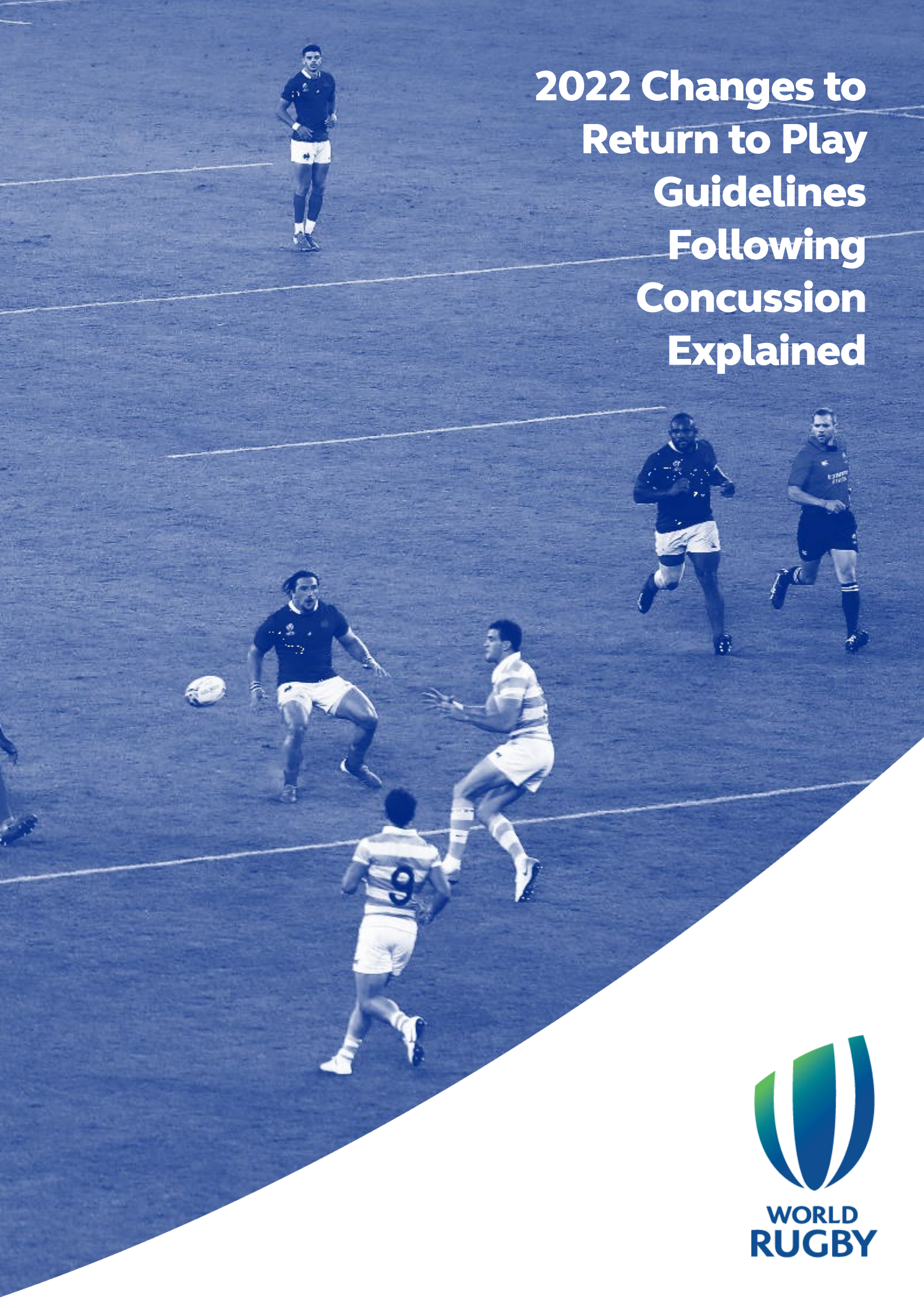


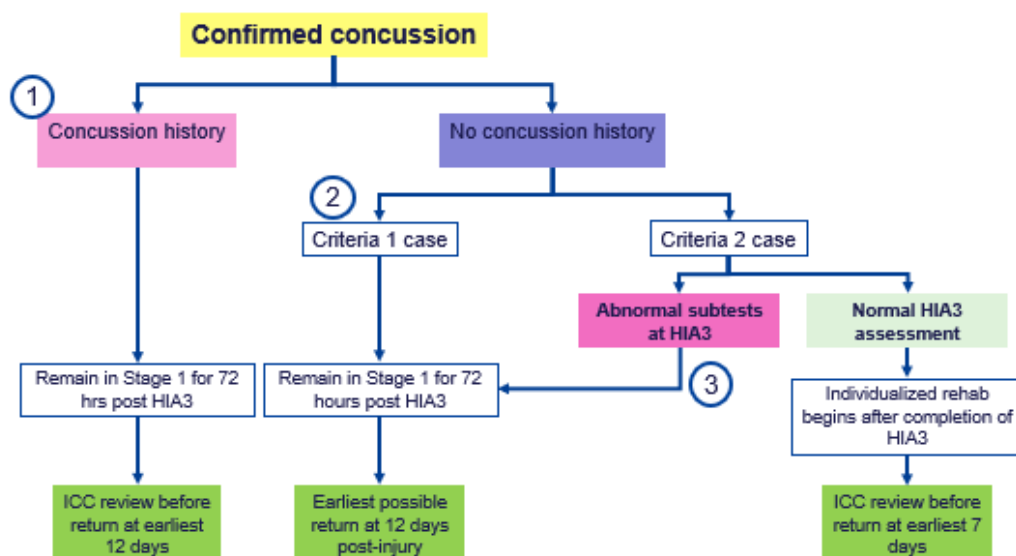
2022 Changes to Return to Play Guidelines Following Concussion Explained



World Rugby Individualised Concussion Rehabilitation Process

World Rugby has worked closely with the Concussion Working Group to update the protocols for return to play after a concussion in the elite game (games/competitions conducted under the Head Injury Assessment temporary removal protocol).

Summary of individualized rehabilitation



How does this change return to play following a concussion?

From July 1, 2022, doctors must use a player’s concussion history and any symptom, balance or cognitive abnormalities, relative to their baseline at concussion diagnosis (HIA3) to risk stratify players who require more conservative concussion rehabilitation.

Concussion may only be excluded after HIA3, therefore a decision on how the player progresses on their individualised rehabilitation is made at that point. The date of injury is ‘Day 0’ and HIA3 is ‘Day 2’.

Players who require more conservative rehabilitation will pause at Stage 1b (symptom-limited activities) for 72 hours **after** HIA3. If they complete their individualised rehabilitation without issue and see an Independent Concussion Consultant (if needed) they will train normally with the team for up to 2 days before they are available for selection at the earliest on day 12.

Those players who do not require more conservative rehabilitation may commence stage 1b after HIA3, therefore they will not be eligible to return to player earlier than day 7.

Concussion history risk stratification

Each player must have their concussion history noted when they complete their annual HIA baseline test, this process has been updated in the new World Rugby SCRM application which will replace the CSX application in August 2022. Any of the following 6 scenarios mean that the player is deemed to have a concussion history. This may be updated after the initial baseline testing, as appropriate.

Concussion History Definition:

1. Concussed within last 3 months
2. Three or more concussions in the last 12 months
3. Five or more career concussions
4. Reduced impact threshold noted*
5. Any previous concussion complicated by psychological issues
6. Previous concussion with prolonged recovery (>21 days)

*Reduced impact threshold describes where the team doctor, player or ICC deem that in prior concussions, the player suffered a concussion from impacts where a concussion was not expected.

During the season or competition, a player's risk status will be automatically tracked and indicated within the SCRM application. Where a player's status changes eg. after a further concussion, this will be reflected in the application. Likewise, if a team doctor or ICC has concerns at a lowering of concussion threshold this may be manually entered on the system.

Those players with a concussion history will pause at stage 1b of their return to play for 72 hours following HIA3 – this stage is symptom limited activities (see table below). They will need to complete the 6 stages of their individualised rehabilitation AND consult with an Independent Concussion Consultant (ICC) prior to the earliest return to play of 12 days.

Initial presentation of concussion risk stratification

Those players who are removed from play as a Criteria 1 (immediate permanent removal) will also need to pause at Stage 1b for 72 hours with an earliest return to play of 12 days.

HIA3 performance risk stratification

Players who are initially identified as Criteria 2 or as delayed (post-game presentation) cases, and who are later diagnosed as concussed, but who **HAVE NOT** returned to baseline (symptoms, cognitive function and balance) at HIA3, will also need to pause at Stage 1b for 72 hours with an earliest return to play of 12 days.

If a player is diagnosed with concussion as a Criteria 2 entry or with delayed concussion (post-game presentation), but **HAS** returned to baseline (symptoms, cognitive function and balance) at HIA3, they may progress through their individualised rehabilitation, if tolerated, at a rate of 1 stage per 24 hours. They will need to complete the 6 stages of their individualised rehabilitation AND consult with an Independent Concussion Consultant (ICC) prior to an earliest return to play of 7 days.

To be clear, only players with no concussion history, diagnosed as Criteria 2 concussions, and who have returned to baseline at HIA3 (for symptoms, cognition and balance) will be eligible to start individualised rehabilitation after HIA3. If those players complete the 6 stages of this process, and see an ICC they may possibly return for the next game (day 7).

Who will need to see the Independent Concussion Consultant (ICC)

The ICC supports the team doctor in the return to play process. We have expanded those who need to see the ICC to 2 categories:

1. Those players who have a concussion history – regardless of how long their individualised rehabilitation takes
2. Those players who do not require a conservative approach (criteria 2, with HIA3 back to baseline levels), who wish to play less than 10 days after their injury.

Individualised Rehabilitation Process

Stage	Rehabilitation stage	Exercise allowed	Objective
1a	Initial Rest (Physical and Cognitive)	Normal activities of daily living which do not worsen symptoms, vigorous activity should be avoided. Relative cognitive rest, limiting screen time etc- ensure symptoms continue to improve or remain absent. Symptoms must be absent before commencing Stage 2.	Recovery as HIA process is completed
1b	Symptom-limited activities	This includes activities of daily living that do not provoke symptoms. Consider time off or adaptation of work or study.	Return to normal activities (as symptoms permit)
2	Light aerobic exercise	Light jogging for 10-15 minutes, swimming or stationary cycling at low to moderate intensity. No resistance training. Symptom free during full 24-hour period.	Increase heart rate
3	Sport-specific exercise	Running drills. No head impact activities.	Add movement
4	Non-contact training drills	Progression to more complex training drills, e.g., passing drills. May start progressive resistance training.	Exercise, coordination, and cognitive load
5	Full contact practice	Following medical clearance, participate in normal training activities.	Restore confidence and assess functional skills by coaching staff
6	Return to sport	Normal game play.	

Individualised rehabilitation examples.

The following are some examples of how individualised rehabilitation might progress, at all levels, the player must remain symptom free before progression to the next stage.

If a player does not have a concussion history, is identified as a Criteria 2 or delayed entry case, and has returned to baseline at HIA3, below is an example of how the individualised rehabilitation **might** proceed.

Day 0 = Injury

Day 1 = Stage 1a Rest

Day 2 = HIA3 and if all sub-tests (symptom, cognitive, balance) normal, then Stage 1b (e.g. Bike)

Day 3 = Stage 2 – non symptom-provoking exercise

Day 4 = Stage 3 – e.g. Running

Day 5 = Stage 4 – Non-Contact training / skill work & Return to S&C AND must pass the impact

Day 6 = Stage 5 – Return to contact and full team training followed by a World Rugby Independent Concussion Consultant (ICC) Review

Day 7 = Available for selection

If a player has a concussion history, the following is an example of how the individualised rehabilitation **might** proceed, regardless of whether the player is a Criteria 1, Criteria 2 or delayed entry:

Day 0 = Injury

Day 1 = Stage 1a Rest

Day 2 = HIA3 and stage 1b (symptom limited activity), regardless of HIA3 result

Day 3 = stage 1b (symptom limited activity)

Day 4 = stage 1b (symptom limited activity)

Day 5 – stage 1b (symptom limited activity)

Day 6 – Stage 2b (Bike)

Day 7 = Stage 3 – Running

Day 8 = Stage 4 – Non-Contact training / skill work & Return to Strength & Conditioning and also complete computerised/formal neuropsychometric testing

Day 9 = Stage 5 – Return to contact and full team training followed by a World Rugby Independent Concussion Consultant (ICC) Review

Day 10 = Train normally

Day 11 = Train normally

Day 12 = Available for selection

If a player is diagnosed with a Criteria 1 concussion, **AND/OR** has not returned to baseline at HIA3 for a Criteria 2 diagnosis, the following is an example of how the individualised rehabilitation **might** proceed.

Day 0 = Injury

Day 1 = Stage 1a Rest

Day 2 = HIA3 and stage 1b (symptom limited activity)

Day 3 = stage 1b (symptom limited activity)

Day 4 = stage 1b (symptom limited activity)

Day 5 – stage 1b (symptom limited activity)

Day 6 - Stage 2b (Bike)

Day 7 = Stage 3 – Running

Day 8 = Stage 4 – Non-Contact training / skill work & Return to Strength & Conditioning and also complete computerised/formal neuropsychometric testing

Day 9 = Stage 5 – Return to contact and full team training

Day 10 = Train normally

Day 11 = Train normally

Day 12 = Available for selection