Injury Surveillance Studies

2025 Rugby Europe Championship (Women)

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1. INTRODUCTION

Understanding the incidence and nature of the injuries sustained during the practice of rugby is key in order to clarify the risks posed to players. Due to its nature as a contact sport, rugby, like ice hockey, lacrosse, and American football, has a higher injury incidence than non-contact sports. Through Injury Surveillance Studies in various competitions, it is possible to gain an understanding of how, where and when injuries happen, which is a fundamental requirement to advance player welfare standards across all ages, levels, formats and settings of the game.

Several Injury Surveillance Studies have been implemented previously in 15-a-side World Rugby Competitions[1–4], as well as the Injury Surveillance Studies that have been conducted in the Rugby Europe Championship (2023-2024) and the Rugby Europe Super Cup (2023-2024).

Rugby Europe is committed to implementing injury surveillance studies at all major Rugby Europe tournaments and to disseminate the results within the Rugby community.

The aims of these studies are:

- To record and analyze injuries sustained by players at the men's and women's Rugby Europe Competitions.
- To identify injury trends.
- To bring injury-related areas of concern to the attention of Rugby Europe's Chief Medical Officer and when appropriate to World Rugby's Chief Medical Officer.

This report continues the on-going study of Rugby Europe competitions by reporting injuries sustained during the 2025 Women's Rugby Europe Championship.

2. METHODS

This study was conducted in accordance with the definitions and protocols described in the World Rugby approved consensus statement on definitions and procedures for injury surveillance studies in Rugby[5].

The definition of injury was: 'Any match injury sustained during the 2025 Women's Rugby Europe Championship (REC) that prevents a player from taking a full part in all normal training activities and/or match play for more than one day following the day of injury'. A recurrent injury was defined as 'An injury (as defined above) of the same type and at the same site as an index injury and which occurs after a player's return to full participation from the index injury'.

Specific injuries were classified using the OSICS 10 coding system[6]. The study also recorded the injury location, type and cause together with the event leading to the injury.

The injury severity was determined by the number of days a player was injured: a player was deemed to be injured until he/she could undertake full, normal training and be available for match selection whether he/she was actually selected. Medical staff were required to make an informed clinical judgment about a player's fitness to train/play on those days when players were not scheduled to train or play. Injured players were followed up after each tournament to obtain their return-to-play date: the return-to-play dates for players with injuries that remained unresolved 3 months after the final match in the Women's REC were defined on the basis of the player's medical staff's judgment and prognosis. The complete lists of categories and sub-categories used for categorizing injury location and injury types are provided in the Rugby consensus publication[5].

Only match injuries resulting in > 1 day of absence from training or match-play were recorded in this study. Non-match-play injuries were not included in this injury surveillance study.

3. DATA COLLECTION

Prior to the tournament, the purpose of the epidemiological study was outlined to each participating team. The player's anthropometric information was recorded: (playing position [back, forward]; date of birth; body mass [Kg]; stature [cm]); players joining a country's squad at a later date were added to the list of players and the anthropometric data recorded at the time the player joined the squad.

Team medical staff prospectively recorded injuries sustained during each match. Detailed information about each injury (date of injury, date of return to play, location and type of injury, cause of injury, event leading to injury) was also recorded by team medical staff. Injuries were understood to be resolved when injured players returned to play/training.

Four countries (Netherlands, Portugal, Spain and Sweden) were involved in the Women's REC 2025.

4. RESULTS

All participating teams reported data in accordance with the definitions and protocols described in the World Rugby approved consensus statement on definitions and procedures for injury surveillance studies in Rugby[5]. The number of injuries reported in this competition was small; therefore, the results should be interpreted with caution.

4.1. Players' anthropometric data

Table 1 summarises the numbers and anthropometric data for players, categorised as backs, forwards and all players, taking part in WREC 2025.

The total sample population for the study was 124 players (54 backs; 70 forwards. The mean age was 25,9 years, forwards (27,0 years) were significantly older than backs (24,5 years) (p=0,007). Teams did not provide stature or body mass data for the players.

Table 1. Players' anthropometric data			
Measure	Mean (± standard deviation)		
	Backs	Forwards	All players
Players (n)	54	70	121
Age (years)	24,5 (4,2)	27,0 (5,6)	25,9 (5,2)

4.2. Match injuries

4.2.1. Injury incidence

Table 2 summarises the match injury numbers, exposures and incidences for players, categorised as backs, forwards and all players, taking part in WREC 2025.

The total number of injuries sustained was 7 (backs: 2; forwards: 5) and the total match exposure was 240,0 player-hours (backs: 112,0; forwards: 128,0). The overall match incidence was 29,2 injuries/1000 match hours (backs: 17,9; forwards: 39,1). There is no statistically significant difference (p=0,422) in the incidence values reported for backs and forwards.

Table 2. Match injury frequency, exposure, and injury incidence			
Measure	Backs	Forwards	All players
Injuries (n)	2	5	7
Exposure (player-match-hours)	112,0	128,0	240,0
Incidence (95% confidence interval)	17,9 (0,0–42,4)	39,1 (5,5–72,6)	29,2 (7,9–50,5)

4.2.2. Injury severity

Table 3 summarises the mean and median match injury severity data for players, categorised as backs, forwards and all players, taking part in WREC 2025.

The mean severity of all injuries sustained was 22,9 days missed (backs: 62,0 days; forwards: 7,2 days). The median severity of all injuries sustained was 4,0 days for all players (backs: 62,0 days;

forwards: 4,0 days). The mean time-loss for backs was significantly higher than that for forwards (p=0,031). However, there were no significant differences between backs and forwards in terms of median time-loss (p=0,079).

Table 3. Mean and median match injury severity (days lost)			
Measure	**Severity** (95% Confidence interval), **days**		
	Backs	Forwards	All players
Mean (95% confidence interval)	62,0 (0,0- 150,9)	7,2 (0,0-18,2)	22,9 (0,0-48,8)
Median (95% confidence interval)	62,0 [55,0-69,0]	4,0 (2,0-23,0)	4,0 (3,0-69,0)

[ ] Small sample size. The observed range is presented as a reference. It is not possible to calculate CI.

Table 4 summarises the proportion of match injuries by time-loss data for players, categorised as backs, forwards and all players, taking part in WREC 2025.

Minor injuries (2–7 days) were the most frequent overall (57,1%), followed by severe injuries (29–90 days; 28.6%). No major injuries (>90 days) were recorded. All severe injuries (29-90 days) occurred in backs, while forwards sustained only minor (2-7 days) and moderate injuries (8-28 days).

Table 4. Proportion of match injuries by time-loss category			
Measure	%		
	Backs	Forwards	All players
Minor (2-7 days)	0,0	80,0	57,1
Moderate (8-28 days)	0,0	20,0	14,3
Severe (29-90 days)	100,0	0,0	28,6
Major (>90 days)	0,0	0,0	0,0

4.2.3. Injury burden

The total days-absence resulting from match injuries sustained during the WREC 2025 was 160 days-absence (backs: 124; forwards: 36).

Injury burden, which is equal to injury incidence x mean severity, is an important ISS output measure, as it provides an overall indication of the risk of injury[7,8].

The injury burden in the WREC 2025 was 669 days lost/1000 player-hours (backs: 1110; forwards: 282).

4.2.4. Injury location and type

The total number of injuries sustained during the competition (n=7) means it is not meaningful to over analyse the data. The 7 specific injuries sustained were: backs - clavicular fracture: 1, ankle deltoid sprain: 1; forwards – AC joint sprain: 2, AC joint contusion: 1, elbow tendon injury: 1, shoulder muscle spasm: 1.

4.2.5. Injury onset

Table 9 summarises the proportion of match injuries by nature of onset data for players, categorised as backs, forwards and all players, taking part in WREC 2025.

Table 9. Proportion of reported match injuries by nature of onset			
Measure	% (95% Confidence interval)		
	Backs	Forwards	All players
Acute	100,0	100,0	100,0
Gradual	-	-	-

4.2.6. Cause of injury onset

Table 10 summarises the proportion of match injuries by cause of onset data for players, categorised as backs, forwards and all players, taking part in WREC 2025.

Table 10. Proportion of reported match injuries by cause of onset			
Measure	% (95% Confidence interval)		
	Backs	Forwards	All players
Contact	100,0	100,0	100,0
Non-contact	-	-	-

4.2.7. Match events leading to injury

Table 11 summarises the match events causing the injuries suffered by players, categorised as backs, forwards and all players, taking part in WREC 2025.

Most injuries occurred during tackling (42,9%) and being tackled (28,6%). Among backs, collisions and tackling each accounted for 50,0% of injuries. In forwards, tackling was also common (40,0%), followed by being tackled (40,0%) and rucks (20,0%).

Table 11. Proportion of reported match injuries by match event leading to injury			
Measure	% (95% Confidence interval)		
	Backs	Forwards	All players
Collision	50,0 (0,0–100,0)	-	14,3 (0,0–40,2)
Kicking	-	-	-
Lineout	-	-	-
Maul	-	-	-
Ruck	-	20,0 (0,0–55,1)	14,3 (0,0–40,2)
Running	-	-	-
Scrum	-	-	-
Tackled	-	40,0 (0,0–82,9)	28,6 (0,0–62,0)
Tackling	50,0 (0,0–100,0)	40,0 (0,0–82,9)	42,9 (6,2–79,5)
Other/Not known	-	-	-

4.2.8. Time of injury

Table 12 summarises the proportion of reported match injuries by period of match for players, categorised as backs, forwards and all players, taking part in WREC 2025.

Overall, injuries were slightly more frequent in the 2nd half (57,1%) than in the 1st (42,9%).

Table 12. Proportion of reported match injuries by time during match			
Measure	% (95% Confidence interval)		
	Backs	Forwards	All players
First half	**50,0 (0,0–100,0)**	**40,0 (0,0–82,9)**	**42,9 (6,2–79,5)**
First quarter	-	-	-
Second quarter	50,0 (0,0–100,0)	40,0 (0,0–82,9)	42,9 (6,2–79,5)
Second half	**50,0 (0,0–100,0)**	**60,0 (17,1–100,0)**	**57,1 (20,5–93,8)**
Third quarter	-	20,0 (0,0–55,1)	14,3 (0,0–40,2)
Fourth quarter	50,0 (0,0–100,0)	40,0 (0,0–82,9)	42,9 (6,2–79,5)

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