



Injury Surveillance Report

Edition Feb 2025
based on the 2024-2025 Season – **Super Cup (Men)**

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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, as well as 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 and levels of the game.

Several Injury Surveillance Studies have been implemented previously in World Rugby Competitions^[1-4], as well as in Rugby Europe Championship and Super Cup 2023.

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 at Rugby Europe Competitions.
- To identify injury trends in Rugby 7s and Rugby 15s.
- 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 Men's Rugby Europe Super Cup.

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 injury sustained during the 2024 Men’s Rugby Europe Super Cup matches 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 informed 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 Tournament in the Rugby Europe Super Cup 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. The rest of the injuries that were not included in this definition were not recorded.

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.

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 a member of each team medical staff. The injury was understood as finish when an injured player’s return-to-play date.

Brussels Devils, Black Lion, Bohemia Rugby Warriors, Delta, Castilla y Leon Iberians, Lusitanos and Romanian Wolves were involved in the Men’s Rugby Europe Super Cup 2024.

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].

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 Men’s Rugby Europe Super Cup 2024. The total sample population involved in the study was 230 players; anthropometric data were provided for 115 players.

The total sample population for the study was 230 players (49 backs; 66 forwards; 115 unknown). The mean age was 25,9 years (backs: 24,5 years; forwards: 26,8 years; $p=0,002$). The average stature for all players was 183,8 cm; forwards (186,4 cm) were significantly taller than backs (180,3 cm) ($p<0,001$). The average body mass for all players was 98,0 kg; forwards (108,1 kg) were significantly heavier than backs (84,5 kg) ($p<0,001$).

Table 1. Players’ anthropometric data			
Measure	Mean (\pm standard deviation)		
	Backs	Forwards	All players
Players (n)	49	66	115
Stature (cm)	180,3 (5,8)	186,4 (6,9)	183,8 (7,1)
Body Mass (kg)	84,5 (7,6)	108,1 (11,7)	98,0 (15,5)
Age (years)	24,5 (3,7)	26,8 (3,9)	25,9 (4,0)

4.2. Match injuries

4.2.1. Injury incidence

Table 2 summarises the match injury frequency and incidence and match exposure data for players, categorised as backs, forwards and all players, taking part in Men’s Rugby Europe Super Cup 2024.

The total number of injuries sustained was 24 (backs: 13; forwards: 11) and the total match exposure was 560,0 player-hours (backs: 261; forwards: 299). The overall match incidence was 42,9 injuries/1000 match hours (backs: 49,8 forwards: 36,8).

Table 2. Match injury frequency, match exposure volume, and match injury incidence			
Measure	Backs	Forwards	All players
Injuries (n)	13	11	24
Match Exposure (player-match-hours)	261	299	560
Incidence (95% confidence interval)	49,8 (23,4-76,2)	36,8 (15,5-58,1)	42,9 (26,1-59,6)

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 Men’s Rugby Europe Super Cup 2024.

The mean severity of the study was 24,5 days missed. Backs missed 17,0 days, while forwards missed 33,3 days due to injuries. The median severity was 15,0 days for all players and between positions, being 14,0 days for backs and 25,0 days for forwards. There were no significant differences between backs and forwards for either the mean ($p=0,161$) or median severities ($p=0,201$).

Table 3. Mean and median match injury severity (days lost)			
Measure	Severity (95% Confidence interval), days		
	Backs	Forwards	All players
Mean (95% confidence interval)	17,0 (12,2-21,8)	33,3 (9,6-56,9)	24,5 (13,8-35,1)
Median (95% confidence interval)	14,0 (13,0-20,0)	25,0 (13,0-32,0)	15,0 (13,0-25,0)

Table 4 summarises the proportion of match injuries by time-loss data for players, categorised as backs, forwards and all players, taking part in Men’s Rugby Europe Super Cup 2024.

Moderate severity (8-28 days) was the most common representing 70,8% of all injuries, followed by severe (29-90 days) with 16,7%, minor (2-7 days) with 8,3% and major (> 90 days) with 4,2%. Backs suffered more moderate injuries than forward, whilst forwards presented more severe, major and minor injuries than backs.

Measure	Backs	Forwards	All players
Minor (2-7 days)	0,0%	18,2%	8,3%
Moderate (8-28 days)	84,6%	54,5%	70,8%
Severe (29-90 days)	15,4%	18,2%	16,7%
Major (>90 days)	0,0%	9,1%	4,2%

4.2.3. Injury burden

The total days-absence resulting from match injuries sustained during the Men’s Rugby Europe Super Cup 2024 was 587 days-absence (backs: 221; forwards: 366).

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 Men’s Rugby Europe Super Cup 2024 was 1055 days lost/1000 player-hours (backs: 846; forwards: 1225 days lost).

4.2.4. Injury location

Table 5 summarises the proportion of match injuries by injury location data for players, categorised as backs, forwards and all players, taking part in Men’s Rugby Europe Super Cup 2024.

The most common injury locations were head/neck (45,8%) and lower limb (37,5%), followed by trunk (8,3%) and upper limb (8,3%).

Backs sustained more head/neck injuries (46,2%) and lower limb injuries (46,2%) compared to forwards. Forwards had a higher proportion of upper limb injuries (18,2%) and trunk injuries (9,1%). The most frequent specific injury locations for backs were head/face (46,2%) and knee (23,1%), whereas forwards experienced more head/face injuries (45,5%) and thigh, posterior injuries (18,2%).

Table 5. Proportion of match injuries by injury location			
Measure	% (95% Confidence interval)		
	Backs	Forwards	All players
Head / Neck	46,2 (19,1-73,3)	45,5 (16,0-74,9)	45,8 (25,9-65,8)
Head/face	46,2 (19,1-73,3)	45,5 (16,0-74,9)	45,8 (25,9-65,8)
Neck/cervical spine	-	-	-
Upper limb	-	18,2 (0,0-41,0)	8,3 (0,0-19,4)
Shoulder/clavicle	-	9,1 (0,0-26,1)	4,2 (0,0-12,2)
Upper arm	-	-	-
Elbow	-	9,1 (0,0-26,1)	4,2 (0,0-12,2)
Forearm	-	-	-
Wrist/hand/fingers	-	-	-
Trunk	7,7 (0,0-22,2)	9,1 (0,0-26,1)	8,3 (0,0-19,4)
Ribs/upper back	-	-	-
Abdomen	-	9,1 (0,0-26,1)	4,2 (0,0-12,2)
Low back	7,7 (0,0-22,2)	-	4,2 (0,0-12,2)
Sacrum/pelvis	-	-	-
Lower limb	46,2 (19,1-73,3)	27,3 (1,0-53,6)	37,5 (18,1-56,9)
Hip/groin	-	-	-
Thigh, anterior	-	-	-
Thigh, posterior	15,4 (0,0-35,0)	18,2 (0,0-41,0)	16,7 (1,8-31,6)
Knee	23,1 (0,2-46,0)	-	12,5 (0,0-25,7)
Lower leg	-	-	-
Ankle	7,7 (0,0-22,2)	9,1 (0,0-26,1)	8,3 (0,0-19,4)
Foot/toe	-	-	-

4.2.5. Injury type

Table 6 summarises the proportion of match injuries by injury type for players, categorised as backs, forwards and all players, taking part in Men’s Rugby Europe Super Cup 2024.

The most common injury types were Central/Peripheral Nervous System (C/PNS) and joint/ligament injuries, both accounting for 33,3%, followed by muscle/tendon injuries (20,8%) and bone injuries (8,3%).

Backs sustained more C/PNS injuries (38,5%) and joint/ligament injuries (38,5%) than forwards, while forwards had a higher proportion of muscle/tendon injuries (27,3%). The most frequent specific injury types for backs were concussion (38,5%) and sprain/ligament, meniscus and muscle strain injuries (15,4% each); whereas for forwards, the most common were concussion and muscle strain/cramps (27,3% each) and sprain/ligament injuries (18,2%).

Table 6. Proportion of match injuries by injury type

Measure	% (95% Confidence interval)		
	Backs	Forwards	All players
Bone	7,7 (0,0-22,2)	9,1 (0,0-26,1)	8,3 (0,0-19,4)
Fracture	7,7 (0,0-22,2)	9,1 (0,0-26,1)	8,3 (0,0-19,4)
Other bone injury	-	-	-
C/PNS	38,5 (12,0-64,9)	27,3 (1,0-53,6)	33,3 (14,5-52,2)
Concussion	38,5 (12,0-64,9)	27,3 (1,0-53,6)	33,3 (14,5-52,2)
Nerve injuries	-	-	-
Joint (non-bone) / ligament	38,5 (12,0-64,9)	27,3 (1,0-53,6)	33,3 (14,5-52,2)
Dislocation / Subluxation	7,7 (0,0-22,2)	9,1 (0,0-26,1)	8,3 (0,0-19,4)
Meniscus / Disc Injury	15,4 (0,0-35,0)	-	8,3 (0,0-19,4)
Sprain / Ligament	15,4 (0,0-35,0)	18,2 (0,0-41,0)	16,7 (1,8-31,6)
Other	-	-	-
Muscle / tendon	15,4 (0,0-35,0)	27,3 (1,0-53,6)	20,8 (4,6-37,1)
Haematoma / bruise	-	-	-
Muscle strain / cramp	15,4 (0,0-35,0)	27,3 (1,0-53,6)	20,8 (4,6-37,1)
Tendon injury / tendinopathy	-	-	-
Other	-	-	-
Skin	-	9,1 (0,0-26,1)	4,2 (0,0-12,2)
Abrasion	-	-	-
Laceration	-	9,1 (0,0-26,1)	4,2 (0,0-12,2)
Other types	-	-	-
Visceral	-	-	-
Other	-	-	-

C(PNS: Central and Peripheral Nervous System)

4.2.6. Most common and highest risk injuries

Table 7 identifies the most common match injuries by injury diagnosis for players, categorised as backs, forwards and all players, taking part in Men’s Rugby Europe Super Cup 2024.

The most common injuries were concussion (33,3%) and hamstring strain (16,7%). Among backs, concussion (38,5%) was the most common injury, followed by hamstring strain (15,4%). Similarly, forwards also had concussion (27,3%) as the most reported injury, with hamstring strain (18,2%) ranking second.

Table 7. The four most common injury diagnoses reported for backs, forwards and all players (% of all reported match injuries)					
Backs		Forwards		All players	
Injury	%	Injury	%	Injury	%
Concussion	38,5	Concussion	27,3	Concussion	33,3
Hamstring strain	15,4	Hamstring strain	18,2	Hamstring strain	16,7
MCL injury knee	7,7	ATF Ligament sprain	9,1	ATF Ligament sprain	8,3
ATF Ligament sprain	7,7	Elbow medial ligament injury	9,1	Nasal fracture	8,3

Table 8 summarises the injuries with greatest burden for players, categorised as backs, forwards and all players, taking part in Men’s Rugby Europe Super Cup 2024.

For all players, concussion (32,7%) caused the highest burden of days lost, followed by shoulder pain (20,6%), hamstring strain (14,0%), and nasal fracture (7,7%). Among backs, concussion (29,7%) was also the most burdensome, with L5/S1 disc prolapse (15,8%) and MCL knee injury (13,6%) contributing significantly. Forwards had the highest burden from concussion (34,4%), shoulder pain (33,1%), and hamstring strain (15,8%), with nasal fractures (6,8%) being less impactful.

Table 8. The four injury diagnoses with greatest burden reported for backs, forwards and all players (% of all reported days lost to match injuries)					
Backs		Forwards		All players	
Injury	%	Injury	%	Injury	%
Concussion	29,7	Concussion	34,4	Concussion	32,7
L5/S1 disc prolapse	15,8	Shoulder pain	33,1	Shoulder pain	20,6
MCL injury knee	13,6	Hamstring strain	15,8	Hamstring strain	14,0
Knee osteochondral injury	10,4	Nasal fracture	6,8	Nasal fracture	7,7

4.2.7. 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 Men’s Rugby Europe Super Cup 2024.

Acute onset was the only cause of injury with 100,0%.

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	-	-	-

4.2.8. 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 Men’s Rugby Europe Super Cup 2024.

Contact mechanism represented 83,3% of all injuries while non-contact was 16,7%. Contact injuries were more common for backs (84,6%) than forwards (81,8%).

Table 10. Proportion of reported match injuries by cause of onset			
Measure	% (95% Confidence interval)		
	Backs	Forwards	All players
Contact	84,6 (65,0-100,0)	81,8 (59,0-100,0)	83,3 (68,4-98,2)
Non-contact	15,4 (0,0-35,0)	18,2 (0,0-41,0)	16,7 (1,8-31,6)

4.2.9. 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 Men’s Rugby Europe Super Cup 2024.

The most common causes of injury were being tackled (37,5%) and tackling (25,0%), followed by running (12,5%). Backs were most frequently injured when tackled (61,5%), while forwards had a more even distribution, with tackling (27,3%) and running (18,2%) as leading causes.

Table 11. Proportion of reported match injuries by match event leading to injury			
Measure	% (95% Confidence interval)		
	Backs	Forwards	All players
Collision	-	9,1 (0,0-26,1)	4,2 (0,0-12,2)
Kicking	7,7 (0,0-22,2)	-	4,2 (0,0-12,2)
Lineout	-	-	-
Maul	-	18,2 (0,0-41,0)	8,3 (0,0-19,4)
Ruck	-	9,1 (0,0-26,1)	4,2 (0,0-12,2)
Running	7,7 (0,0-22,2)	18,2 (0,0-41,0)	12,5 (0,0-25,7)
Scrum	-	9,1 (0,0-26,1)	4,2 (0,0-12,2)
Tackled	61,5 (35,1-88,0)	9,1 (0,0-26,1)	37,5 (18,1-56,9)
Tackling	23,1 (0,2-46,0)	27,3 (1,0-53,6)	25,0 (7,7-42,3)
Other (Not known)	-	-	-

4.2.10. Time of injury

Table 12 summarises the proportion of reported match injuries by time during match for players, categorised as backs, forwards and all players, taking part in Men’s Rugby Europe Super Cup 2024.

Overall, injuries were evenly split between halves (50% each). Backs had more injuries in the second half (61,5%), while forwards had more in the first half (63,6%).

Table 12. Proportion of reported match injuries by time during match			
Measure	% (95% Confidence interval)		
	Backs	Forwards	All players
First half	38,5 (12,0-64,9)	63,6 (35,2-92,1)	50,0 (30,0-70,0)
First quarter	15,4 (0,0-35,0)	27,3 (1,0-53,6)	20,8 (4,6-37,1)
Second quarter	23,1 (0,2-46,0)	36,4 (7,9-64,8)	29,2 (11,0-47,4)
Second half	61,5 (35,1-88,0)	36,4 (7,9-64,8)	50,0 (30,0-70,0)
Third quarter	23,1 (0,2-46,0)	18,2 (0,0-41,0)	20,8 (4,6-37,1)
Fourth quarter	38,5 (12,0-64,9)	18,2 (0,0-41,0)	29,2 (11,0-47,4)

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