

# The Irish Rugby Injury Surveillance Project

# School Senior Cup Rugby

2022 - 2023 Season Report

















































































Authored by the Irish Rugby Injury Surveillance (IRIS) Project Steering Group

#### IRFU:

Dr. Rod McLoughlin (Medical Director, IRFU)

Dr. Caithríona Yeomans (Medical Manager, IRFU)

#### Principal Investigators:

Assoc. Prof. Tom Comyns (Strength and Conditioning, University of Limerick)

Prof. Ian Kenny (Biomechanics, University of Limerick)

#### Supporting Investigators:

Mr. Kilian Bibby (Doctoral Researcher, Strength and Conditioning, University of Limerick)
Assoc. Prof. Roisin Cahalan (Doctoral Supervisor, Physiotherapy, University of Limerick)
Prof. Mark Campbell (Doctoral Supervisor, Sport Psychology, University of Limerick)
Mr. Patrick Dolan (Doctoral Researcher, Strength and Conditioning, University of Limerick)
Prof. Liam Glynn (Graduate Entry Medical School, University of Limerick)
Ms. Lauren Guilfoyle (Doctoral Researcher, Physiotherapy, University of Limerick)\*
Prof. Drew Harrison (Biomechanics, University of Limerick)
Assoc. Prof. Mark Lyons (Doctoral Supervisor, Strength and Conditioning, University of Limerick)
Assoc. Prof. John Mulvihill (Biomedical Engineering, University of Limerick)
Prof. Kieran O'Sullivan (Physiotherapy, University of Limerick)
Assoc. Prof. Helen Purtill (Mathematics and Statistics, University of Limerick)
Prof. Giles Warrington (Sport and Exercise Physiology, University of Limerick)

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\*Report Primary Author

# Contents

The IRI	S Team	i
Conter	nts	ii
Irish Ru	ugby Football Union Foreword	iv
Irish Ru	ugby Injury Surveillance Foreword	V
1.0 Ex	ecutive Summary of the School 2022-2023 Season	1
1.1	Match Injury	1
1.2	Training Injury	1
1.3	Most Frequent Injury	1
1.4	Injury Event	2
1.5	Playing Position	2
1.6	Injury Burden	2
2.0 Int	roduction	3
2.1	The IRIS Project	3
2.2	Injury Definitions	4
2.3	Recruitment	5
3.0 Mc	atch Injury	8
3.1	Overall Time-loss Match Injury	8
3.2	Match Injury Classification	9
3.3	Timing of Match Injury	11
3.4	Match Injury Event	12
3.5	Nature of Match Injury	13
3.6	Body Location of Match Injury	14
3.7	Playing Position of Match Injury	15
3.8	Match Injury Severity	16
3.9	Match Injury Burden	17
3.10	Medical Attention Match Injury (slight injury)	17
3.11	Other Match-related Injury	17

4.0 Training Injury		19
4.1	Overall Time-loss Training Injury	19
4.2	Training Injury Classification	19
4.3	Body Location of Training Injury	20
4.4	Nature of Training Injury	21
4.5	Training Injury Event	22
4.6	Training Injury Severity	23
4.7	Training Injury Burden	24
4.8	Medical Attention Training Injury (slight injury)	24
5.0 Fu	ture Directions of the IRIS Project	25
5.0 Fu	ture Directions of the IRIS Project	25
	ture Directions of the IRIS Project	25 27
	•	
6.0 Gld	•	
6.0 Gld	ossary of Terms	27
6.0 Gld	ossary of Terms ablications and Conferences	27 29
<b>6.0 Glo 7.0 Pu</b> 7.1	ossary of Terms  blications and Conferences  Journal Publications	<b>27 29</b> 29



iii

## Irish Rugby Football Union Foreword

The Irish Rugby Football Union (IRFU) continues their commitment to player welfare across all areas of the game in Ireland. Our school game was particularly impacted by COVID-19, with no regular schools' rugby played over the 2020/21 and 2021/22 seasons. We are encouraged to see our schools safely return to rugby and resume their vital role within the Irish Rugby Injury Surveillance (IRIS) Project.

The injury data provided by the IRIS Project informed IRFU discussions around tackle behaviours. These data were a vital component in the IRFU decision to address the tackle behaviour in the domestic game and subsequently to opt into the World Rugby Global Tackle Height Trial. As we look towards the upcoming 2023/24 season, we will be able to accurately compare injury rates before and after the law change. These data allow us to better understand the impact of lowering the tackle height and improving tackle technique on injury rates, injury severity and injury mechanisms.

The IRFU ENGAGE Readiness and Robustness programme continues to be rolled out across the country, and components of this programme feature in the new IRFU Graduated Return to Play (GRTP) Protocol following a concussion. The GRTP Protocol aims to return players to rugby following a suspected or confirmed concussion safely and efficiently, while also aiming to reduce the risk of further injury. The IRFU is dedicated to enhancing player welfare and improving performance across the game, and results from the IRIS project have led to the development of a nationwide rugby readiness and robustness programme. The IRFU Engage programme was launched in September 2021 to help players prepare for the demands of the game and continue performing to their best.

We commend the IRIS Project on their successful expansion across the schools' game and welcome this season's comprehensive report. Thank you to each and every school, data collector, volunteer, player and researcher that is part of this project. Your continued support is a fundamental component of how we protect player health and wellbeing.

Medical Director, IRFU

Dr. Rod McLoughlin



## Irish Rugby Injury Surveillance Foreword

Comprehensive injury surveillance systems in amateur Rugby Union are needed to enhance player welfare and this innovative project to date has provided essential accurate data for all those involved in the game to help inform training, recovery, and game policy. The IRIS project has involved the research, design and implementation of an online injury recording platform. The challenges presented by the COVID-19 pandemic and return to sports training and participation were unprecedented and involved a significant effort from the IRFU, Department of Education, and schools to present and maintain a safe environment. The past 2022-23 season saw a full return to competitive matches for all schools and a concerted effort by IRIS to expand recruitment across Munster, Connacht and Leinster.

This report is compiled to give an overview of injury trends in Senior Cup school Rugby across the 2022-2023 season in Ireland. Injury data from 191 matches were analysed, for fourteen school teams representing 481 players. The season represents support from dedicated data injury recorders, coaches, doctors, physiotherapists, managers, and ancillary staff within schools: thank you.

The IRIS project includes the addition of amateur men's and women's club Rugby surveillance. IRIS involves research stemming from ongoing injury reduction and sports performance work by University of Limerick academics across a range of sports, as well as our specific expertise in Rugby Union. It has effectively brought together academics with expert practitioner experience from the fields of biomechanics, medicine, biomedical engineering, mathematics and statistics, physiotherapy, sport psychology, and strength and conditioning as well as post-doctoral and doctoral researchers. The holistic approach to injury surveillance and prevention is central to the project.

IRIS Principal Investigators Assoc. Prof. Tom Comyns, PhD Prof. Ian Kenny, PhD



 $\mathsf{v}$ 

## 1.0 Executive Summary

#### 1.1 Match Injury

Commencing in September 2022, the Irish Rugby Injury Surveillance (IRIS) project collected one full season of injury data across 191 matches from 14 School Senior Cup teams. The matches consisted of friendlies, league games and Cup games.

- There were 14 School Senior Cup teams involved in the IRIS Project for the 2022-2023 season.
   One additional school was initially recruited but is excluded from analysis due to incomplete match injury reporting.
- There was a total of 481 School Senior Cup players registered in the IRIS project.
- The overall match time-loss injury incidence rate for School Senior Cup players was 38.5/1,000 player hours
  - This is lower than the overall match time-loss injury incidence rate reported for the Schools Senior Cup during the 2019-2020 season (42.4/1,000 player hours) and the 2018-2019 season (67.8/1,000 player hours).
- A single Senior Cup player would have to play, on average, 22 matches to sustain one injury.

#### 1.2 Training Injury

There was a total of 46 training injuries reported in the School Senior Cup across the season.

#### 1.3 Most Frequent Injury

The head was the most frequently injured body region across the season accounting for 21% of all injuries, while injuries to the shoulder represented the most severe (average 72 days absence per injury) and burdensome (448 days lost per 1,000 player hours) injury in terms of days absent from play.

The most commonly reported match injury diagnoses for the School Senior Cup were concussions (19%) followed by ankle sprains (9%) and shoulder dislocations/subluxations (7%). Reported concussion incidence includes suspected concussions as per IRFU 'Recognise and Remove' protocol. The Graduated Return to Play (GRTP) protocol requires a minimum of 23 days absence from play for players under 20 years of age.

Concussions resulted in an average of 29 days absence from Rugby match or training activities, while ankle sprains resulted in an average of 31 days absence and shoulder dislocations resulted in an average of 108 days absence per injury.

#### 1.4 Injury Event

67% of all match injuries occurred during the tackle event. The tackler was at a slightly increased risk of injury (54%), compared to the ball carrier (46%). During the 2019-2020 School Senior Cup season, a higher rate (74%) of injuries occurred during the tackle, while in the 2018-2019 season, the tackle event accounted for 57% of all injuries. The most commonly reported training injuries occurred during contact drills (50%), followed by set pieces (17%) and conditioning drills (17%). During the 2019-2020 season, contact drills accounted for 61% and speed drills accounted for 18% of training injuries. In the 2018-2019 season, contact drills accounted for 43%, followed by speed drills (33%).

#### 1.5 Playing Position

Of all match injuries recorded in the Senior Cup across the season, 45% were to the forwards (position no. 1-8), while 55% were to the backs (position no. 9-15). Openside flankers (no. 7) and scrumhalves (no. 9) had the highest proportion of match injuries at 12% respectively, followed by the outside centre (no. 13) (11%) and outhalf (no. 10) (10%). In contrast, during the 2019-2020 School Senior Cup season, second rows (no. 4&5) had the highest proportion of match injuries (19%), while in the 2018-2019 season, blindside flankers had the highest proportion of match injuries at 14%.

#### 1.6 Injury Burden

The burden of an injury assesses the incidence of an injury in relation to the severity of the injury (measured as the number of days absent). Shoulder dislocations/subluxations carried the highest cumulative match injury burden (291 days lost per 1,000 player hours) and resulted in an average of 108 days absence from Rugby match or training. Concussions and ankle sprains accounted for 218- and 110-days absence per 1,000 player hours respectively.



## 2.0 Introduction

#### 2.1 The IRIS Project

The Irish Rugby Injury Surveillance (IRIS) project has developed and implemented the first long-term Rugby specific injury surveillance system within underage and amateur Rugby Union in Ireland. This system monitors the incidence, type, nature and severity of both match and training injuries occurring across the amateur game in Ireland. By monitoring this information, injury trends may emerge which will aid in the continued development and implementation of evidence-based injury reduction strategies in order to minimise injury risk and enhance player welfare.

#### **IRIS Aims:**

- To develop and implement an injury surveillance system for underage and amateur Rugby Union in Ireland
- To monitor the incidence and type of injuries occurring and identify any possible injury risk factors.
- To enhance the health and welfare of Rugby Union players by using this information to assist the IRFU policy regarding injury reduction strategies.



3

#### 2.2 Injury Definitions

The IRIS project follows the guidelines from the World Rugby 'Consensus statement on injury definitions and data collection procedures for studies of injuries in Rugby Union' (1) and the International Olympic Committee (IOC) consensus statement: methods for recording and reporting of epidemiological data on illness and injury in sport 2020 (including STROBE Extension for Sport Injury and Illness Surveillance (STROBE-SIIS)) (2).

An injury is defined as "Any physical complaint, which was caused by a transfer of energy that exceeded the body's ability to maintain its structural and/or functional integrity that was sustained by a player during a Rugby match or Rugby training, irrespective of the need for medical attention or time-loss from Rugby activities"

A recurrent injury is one of the same site and same type as the original injury and occurs within two months of the player returning to match play following the original injury.

A dual injury is one of multiple diagnoses resulting from one injury event. Dual injuries were analysed as one injury event for the purposes of calculating overall incidence and injury severity. However, when analysing injury location and nature dual injuries were separated as per international best practice (1) (2).

Both time-loss and medical attention injuries have been monitored and analysed separately. Medical attention injuries are any injury that resulted in 0-1 days absent from Rugby match or training activities (i.e. slight injuries). Any injury that results in greater than 1 days' absence from match or training activities is classed as a time-loss injury and categorised according to injury severity. Only time-loss injuries were included in injury incidence calculations  $^{(1)}$   $^{(2)}$ .

Injury severity is calculated as the number of days that elapsed from the date of injury to the date of the player's return to full participation in training and availability for match selection.

Injury severity is classified as; slight (0-1 days), minimal (2-3 days), mild (4-7 days), moderate (8-28 days) and severe (>28 days).

Match injury data are presented as the number of injuries per 1,000 player hours of match exposure. In order to calculate match injury incidence rates, the following calculation was used:

Senior Cup Division Team match injury incidence rate (IR): (1)

IR =  $\frac{\text{number of injuries}}{\text{number of matches x number of players (15) x match duration (1.17)}} \times 1,000$ 

#### 2.3 Recruitment

In the 2022-2023 season, 15 Senior Cup teams were recruited into IRIS. The IRIS project had over 93% compliance for the School Senior Cup. One Senior Cup school team was excluded from data analysis due to poor compliance.

14 teams and 481 Senior Cup players were included in analysis.

**Table 1:** The IRIS Schools 2022-2023

Division	Number of Schools	Number of Players
School Senior Cup	14	481

Each school nominated an 'injury recorder', who was trained on use of the web-based IRIS system prior to the commencement of each season. Physiotherapists, school nurses or coaches adopted the role of injury recorder. In the majority of schools (50%), coaches acted as injury recorder. Each injury recorder was given a secure and confidential login to their own school team's home-page on the IRIS system. Each team registered all players involved with the Senior Cup teams onto the IRIS system. Beginning with the precompetitive season (each September), the injury recorder documented all injuries occurring to the Senior Cup team players. Injury specific data such as mechanism, nature, body location, occurrence, diagnosis and return to play date were recoded. Injury severity was calculated using the number of days absent from play.





# 3.0 Match Injury

#### 3.1 Overall Time-loss Match Injury

Across the season, data from 14 Senior Cup teams across 191 matches were collected. A total of 129 match time-loss injuries (any injury resulting in more than 1 day's absence from Rugby match or training activities) were recorded. Any injuries resulting in 0-1 days' absence from Rugby match or training activities (slight injuries) were considered to be 'medical attention injuries' and are discussed separately in section 3.8. The overall team match time-loss injury incidence rates:

- School Senior Cup 38.5/1,000 hours.
- This is approximately 3 injuries for every 2 school games.
- A Senior Cup School player would have to play on average 22 matches to sustain one injury.

Table 2 shows the overall team match time-loss injury incidence rate for the School Senior Cup teams.

 Table 2: Match time-loss injuries (excluding 'slight' injuries)

Division	No. teams	No. players	No. matches	Exposure hours	No. injuries	IR*
School Senior Cup	14	481	191	3352	129	38.5

\*IR - Incidence rate per 1,000 player hours

- 30% of all Senior Cup injuries resulted in a player being sent to the accident and emergency department for management, 3 of these via ambulance transfer.
- 12% of Senior Cup injuries were referred to a GP doctor.
- 34% of Senior Cup injuries were referred to a physiotherapist.
- 16% of Senior Cup injuries required at least 1 day's absence from school.



#### 3.2 Match Injury Classification

The injury diagnosis refers to the specific body location alongside the nature of the injury.

The most common injury diagnoses for the School Senior Cup were concussion (19%), followed by ankle sprains (9%) and shoulder dislocations/subluxations (7%). In the School Senior Cup, there were three injuries which had a 'dual' diagnosis: "wrist fracture, ligament sprain and cartilage injury", "shoulder ligament sprain and nerve injury" and "nasal fracture and concussion". These accounted for an incidence of 0.3 per 1,000 player hours respectively.

Table 3 demonstrates the three most common specific match time-loss injury diagnoses for School Senior Cup teams for the current season (2022-2023) and for comparative seasons (2019-2020 and 2018-2019).\*

**Table 3:** Overall most common injury diagnoses for the School Senior Cup; (IR/1,000 player hours, % of injuries)

Schools Senior Cup				
2022-2023	2019-2020	2018 - 2019		
Concussion 7.5 (19%)	Concussion 9.6 (23%)	Ankle Sprain 11.4 (17%)		
Ankle Sprain 3.6 (9%)	Ankle Sprain 4.1 (10%)	Shoulder Dislocation/Subluxation 7.2 (11%)		
Shoulder Dislocation/Subluxation 2.7 (7%)	ACJ Sprain 3.2 (7%)	Concussion 6.6 (10%)		

<sup>\*</sup> IRIS did not collect full season data during 2020-2021 due to training and match curtailment as a result of the COVID-19 pandemic

The head, followed by the shoulder were the most commonly injured body locations in the School Senior Cup, accounting for 21% and 16% of all injuries respectively. Shoulder dislocations/subluxations were the most common injury diagnosis for the shoulder, followed closely by shoulder sprains. Concussion was the most common diagnosis for the head.

This is similar to the 2019-20 School Senior Cup season where the head accounted for 24% and the shoulder 17% of all injuries. In the 2018-2019 season, the shoulder followed by the ankle were the most commonly injured body locations, accounting for 26% and 17% of all injuries respectively.

Table 4 show the most common injury diagnoses for frequently injured body regions.

**Table 4:** School Senior Cup: Most common injury diagnoses with regards body location. (IR/1,000 player hours, % of injuries)

School Senior Cup 2022-2023			
Location	Diagnosis		
Head	Concussion 7.5		
8.1 (21%)	Other 0.6		
	Dislocation/subluxation 2.7		
	Sprain 2.4		
Shoulder 6.3 (16%)	Labrum/cartilage 0.6		
	Haematoma/contusion 0.3		
	Neurological 0.3		
Ankle	Sprain 3.6		
3.9 (10%)	Fracture 0.3		
	Sprain 2.1		
	Strain 0.6		
Knee 3.9 (10%)	Haematoma/contusion 0.6		
	Laceration 0.3		
	Meniscal 0.3		

9

#### 3.3 Timing of Match Injury

The highest percentages of injuries for the Senior Cup occurred in the second (30%) and third (29%) quarters.

During the 2022-2023 season, the Senior Cup teams saw an increase in injuries in the first and second quarters, and a decrease in the third quarter when compared to the 2019-2020 season.

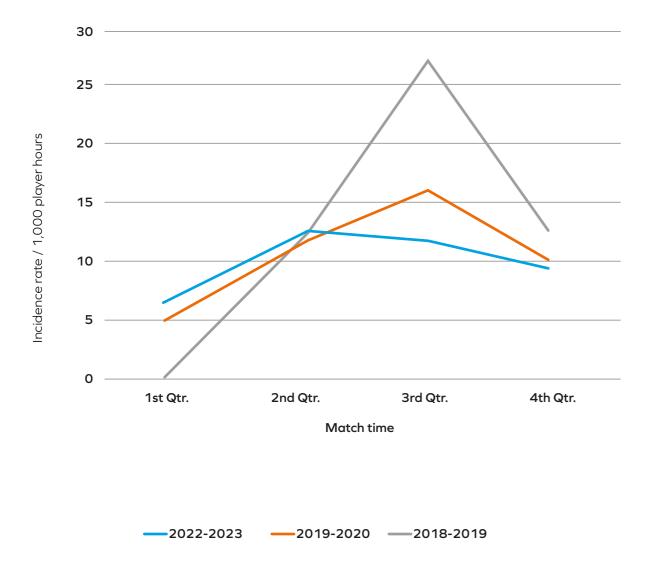
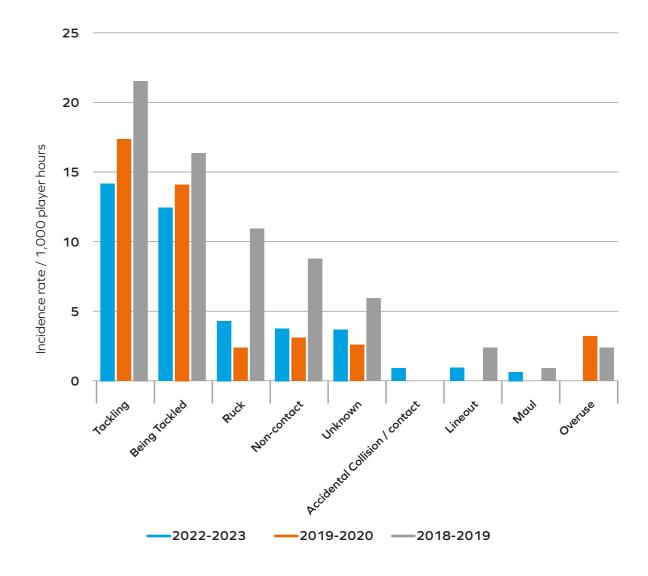


Figure 1: Timing of injury during match play for School Senior Cup teams (IR/1,000 player hours)

#### 3.4 Match Injury Event

Figure 2 shows the event surrounding the occurrence of an injury.

The tackle event (67%) accounted for the most common injury event in the School Senior Cup (tackler: 54%, ball carrier: 46%). This is lower than what was reported in the 2019-2020 season report (74%), where Senior Cup teams had a similar frequency of injury to the ball-carrier and tackler (tackler: 55%, ball carrier: 45%). However, in the 2018-2019 season, the tackle event accounted for 57% of match injuries but had a similar frequency of injury to the ball-carrier and tackler (tackler: 56%, ball carrier: 44%).



**Figure 2**: Match injury event (IR/1,000 player hours)

#### 3.5 Nature of Match Injury

The nature of injury refers to the type of injury occurring.

Ligament sprains followed by concussions were the most common injury type for the School Senior Cup teams. 'Other' injuries refer to one incident of muscle spasming resulting in time-loss, dental injury and two head injuries that were not diagnosed as concussion but resulted in time-loss.

In the 2019-2020 season, ligament sprains and concussions were also the most common injury type for School Senior Cup teams; however, in the 2018-2019 season, ligament sprains, haematomas/contusions and muscle strains were most common.

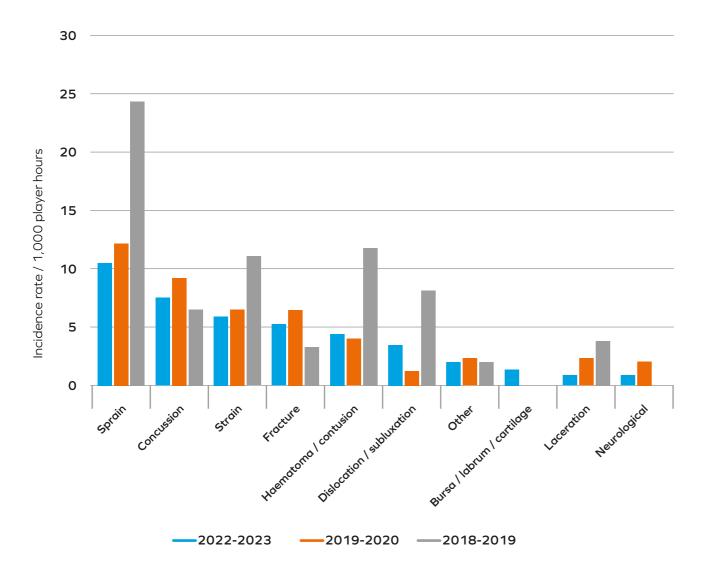


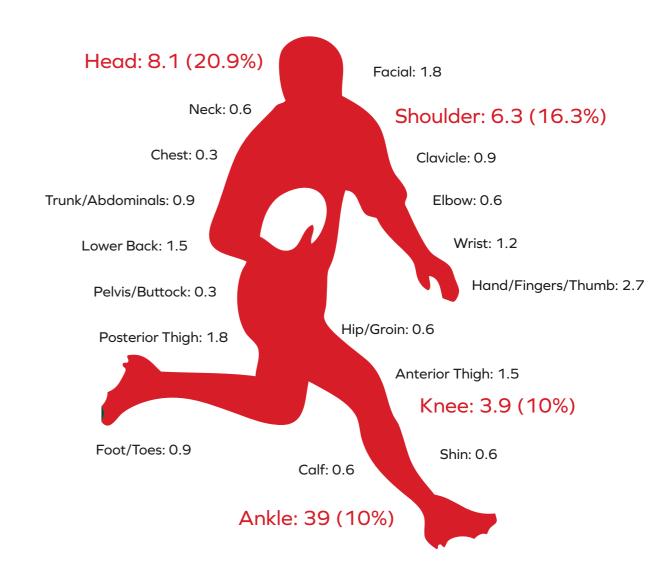
Figure 3: Nature of match injuries (IR/1,000 player hours)

#### 3.6 Body Location of Match Injury

The head was the most commonly injured body area in the School Senior Cup games accounting for 21% (8.1/1,000 player hours) of all injuries. Both the frequency and incidence of head injury has decreased from the 2019-2020 season (26%, 10/1,000 player hours). In the 2018-19 season head injuries accounted for 12% of all injuries (8.4/1,000 player hours).

The most common upper limb location of injury was the shoulder accounting for 16% (6.3/1,000 player hours) of all injuries, a decrease from the 2019-2020 season where it accounted for 17% of all injuries (7.3/1,000 player hours), and the 2018-2019 season where it accounted for 26% of all injuries (17.4/1,000 player hours).

The most common lower limb locations of injury are both the knee (10%) and ankle (10%) – sharing a similar frequency to the 2019-2020 season, and lower than the 2018-2019 season (12% and 17% respectively).



**Figure 4**: Location of match injury for the School Senior Cup (IR/1,000 player hours)

#### 3.7 Playing Position of Match Injury

Rugby player positions are split into 'forwards' (position no. 1-8) and 'backs' (position no. 9-15). Backs sustained more injuries with 55%, versus 45% occurring in the forwards.

Openside flankers (no. 7) and scrumhalves (no. 9) reported the most match injuries at 12% respectively, followed by the outside centre (11%) and outhalf (10%).

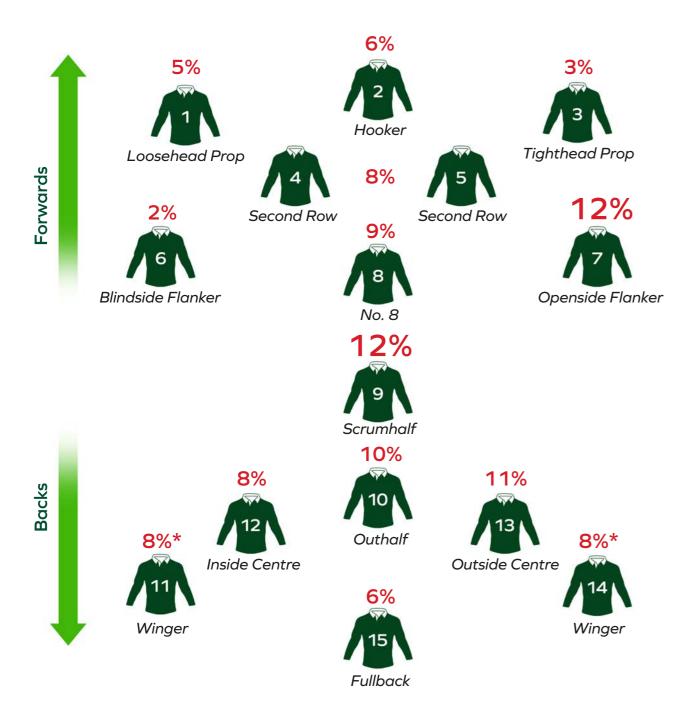
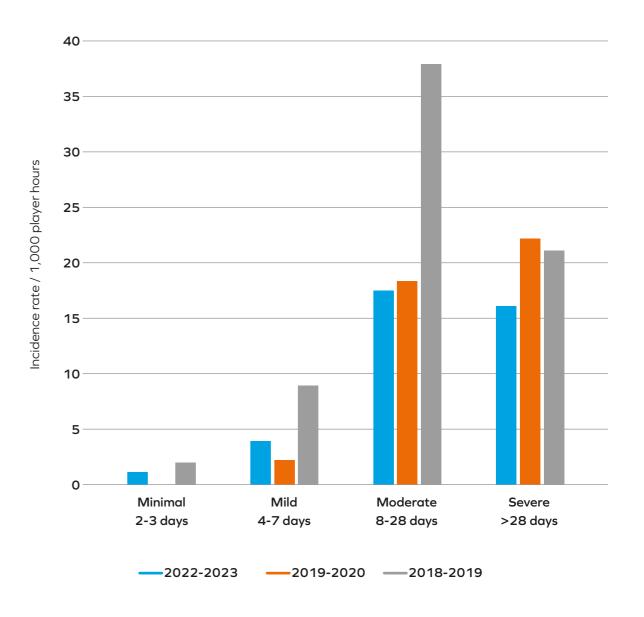


Figure 5:1 Percentage of injuries occurring per playing position in the School Senior Cup.

#### 3.8 Match Injury Severity

Injury severity was calculated as total number of days absent from Rugby match or training and classified according to the World Rugby Consensus guidelines.<sup>(1)</sup> The majority of injuries were moderate or severe (resulting in eight days or more absence), as shown in Figure 6.

Slight injuries (0-1 days absence) were considered as 'medical attention injuries' and were not included in analysis of time-loss injuries. (1) Slight injuries are discussed in more detail in sub-section 3.10.



**Figure 6:** Injury severity of time-loss injuries (IR/1,000 player hours).

15

<sup>1</sup> Second Row and Winger positions denote respective combined percentages for both players in these positions as no differentiation between these positions was applied. The winger % is displayed twice in this graph for illustration purposes but is included once in overall figures.

#### 3.9 Match Injury Burden

The burden of an injury assesses the incidence rate of an injury in relation to the average severity of the injury ([IR] x [average number of days' absence]).

Shoulder dislocations/subluxations carried the highest injury burden in the School Senior Cup; accounting for 16% of all severe match injuries (>28 days absence) and resulted in an average of 108 days absence from Rugby match or training activities. Concussions also made up 16% of all severe match injuries but had a lower injury burden and lower average total days compared to shoulder dislocations/subluxations.

Table 5: Injury diagnoses, injury burden (days absence/1,000 player hours), average TDO (total days off).

	Diagnoses	Injury Burden	Average Total Days Off
	Shoulder dislocation/subluxation	291	108
Senior Cup	Concussion	218	29
	Ankle sprain	110	31

#### 3.10 Medical Attention Match Injury (slight injury)

Any injuries resulting in 0-1 days absence from Rugby match or training are considered as 'slight' or 'medical attention' injuries and therefore were excluded from the analysis of time-loss injuries, as per international best practice. (1-3)

During the 2022-2023 School season, one medical attention injury was recorded in the Senior Cup. The overall incidence rate for medical attention match injuries for School Senior Cup was 0.3/1,000 player hours.

This medical attention injury in the Senior Cup was diagnosed as an acromioclavicular (AC) joint ligament sprain injury. This injury occurred during the game's 1st quarter.

#### 3.11 Other Match-related Injury

Five injuries occurred during the warm-up in the Senior Cup competitions, and these were not included in the analysis of the time-loss match injury incidence as only injuries occurring during the match play counted as match injuries.

These injuries were:

- Clavicle fracture sustained while being tackled.
- Nasal fracture while being tackled.
- Perforated ear drum when tackling.
- Hip flexor muscle strain sustained in a non-contact event.
- Hamstring muscle strain sustained in a non-contact event.



# **4.0 Training Injury**

#### 4.1 Overall Time-loss Training Injury

For the 2022-23 school season, training injury data are presented below. For operational reasons, as the frequency and duration of training sessions were not recorded for this season, training injury incidence rates were not available. Therefore, the total number of training injuries that occurred are reported.

Any injuries resulting in 0-1 day absence from Rugby match or training activities were considered to be medical attention injuries and were not included in the analysis of time-loss injuries, as per international best practice. (1-3)

The overall number of training injuries for the School Senior Cup teams across the season was 46.

**Table 6:** Training injuries in the School Senior Cup

	No. Teams	No. Players	No. Injuries
2022-2023	14	481	46
2019-2020	10	270	28
2018-2019	11	305	21

#### 4.2 Training Injury Classification

The injury diagnosis refers to the specific body location and nature of the injury.

The most common injury diagnosis for the School Senior Cup teams was hamstring strains accounting for 15% of all training time-loss injuries. This was followed by ankle sprains accounting for 13% of all training time-loss injuries. This is somewhat similar to the 2019-2020 season where ankle sprains (21%) and hamstring strains (14%) represented the most common training injury diagnoses.

Table 7 shows the most common specific training time-loss injury diagnoses for the School Senior Cup teams across the season.

**Table 7:** Overall most common injury diagnoses for the School Senior Cup teams (%frequency).

School Senior Cup 2022-2023				
2022-2023	2019-2020	2018-2019		
Hamstring Strain (15%)	Ankle Sprain (21%)	Hamstring Strain (19%)		
Ankle Sprain (13%)	Hamstring Strain (14%)	Ankle Sprain (14%)		
Shoulder Sprain (13%)	ACJ Sprain (11%)	Knee Ligament Sprain (10%) Head Laceration (10%) Calf Strain (10%)		

19

#### 4.3 Body Location of Training Injury

Overall, the shoulder and the ankle were the most commonly injured sites in the School Senior Cup teams, accounting for 22% and 17% of all training time loss injuries respectively.

Figure 7 shows the incidences of injury according to body location for the School Senior Cup teams.

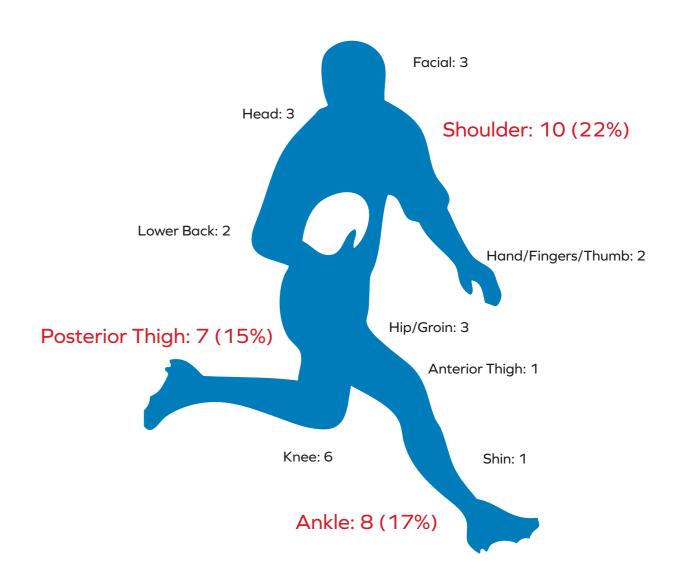


Figure 7: Location of training injuries for the School Senior Cup (number of injuries).

#### 4.4 Nature of Training Injury

The nature of injuries refers to the type of injury occurring.

Sprains (referring to ligament injuries) and strains (referring to muscle or tendon injuries) were the most common injury type in the Senior Cup teams across the season.

Figure 8 shows the nature of time loss training injuries for the School Senior Cup teams.

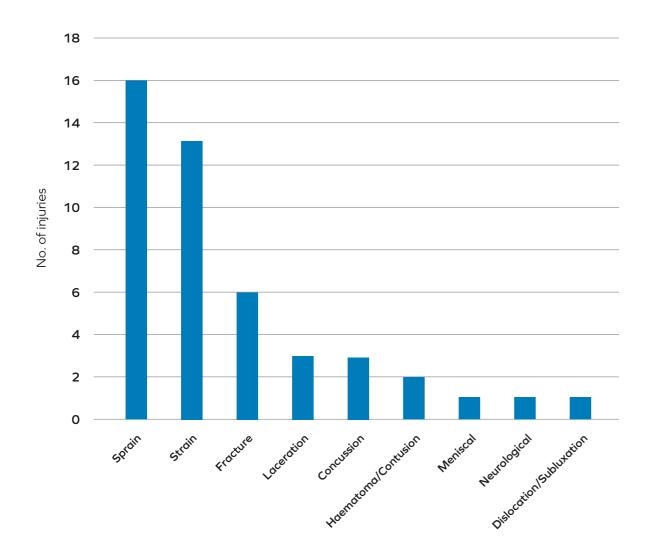


Figure 8: Nature of training injury (number of injuries)

21

#### 4.5 Training Injury Event

Figure 9 shows the events surrounding the occurrence of a training injury for the School Senior Cup across the season.

Contact drills were the most common cause of injury for Senior Cup teams accounting for 50% of time-loss training injuries.

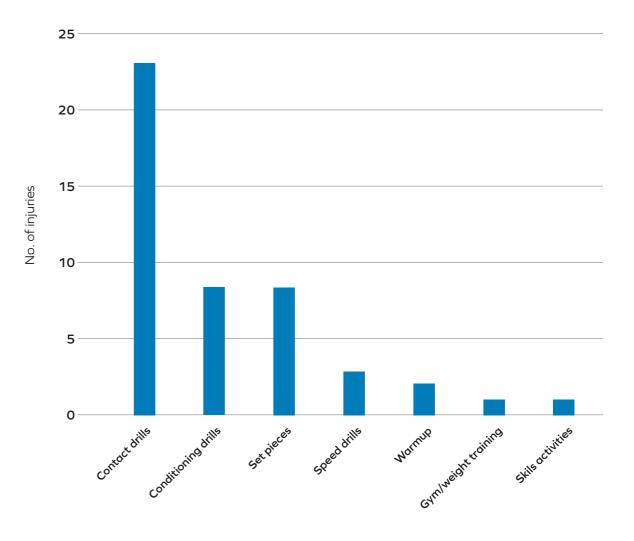


Figure 9: Training injury event (number of injuries)

#### 4.6 Training Injury Severity

Injury severity was calculated as total number of days absent from Rugby match or training and classified according to the World Rugby Consensus guidelines. The majority of injuries were moderate or severe (resulting in eight days or more absence), as shown in Figure 10.

Slight injuries (0-1 days absence) were considered as 'medical attention injuries' and were not included in analysis of time-loss injuries, as per international best practice. (1-3) Slight injuries are discussed in more detail in sub-section 4.8.

The severity of training injuries for the School Senior Cup grade differed from the 2019-2020 season where the majority of time-loss training injuries were moderate (8-28 days) in terms of time loss from Rugby training or matches.

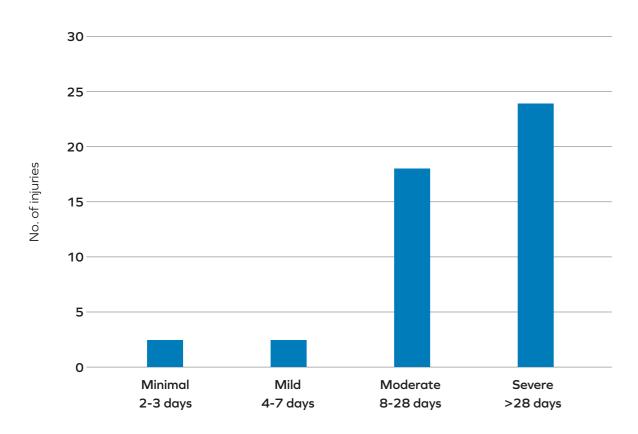


Figure 10: Training injury severity (number of injuries)

#### 4.7 Training Injury Burden

The burden of an injury assesses the frequency of an injury in relation to the severity of the injury (measured as the number of days absence). Exposure was not measured in relation to training injuries, therefore 'days lost per 1,000 hours' could not be calculated.

Frequency of severe training injuries along with average total days off are reported. Knee sprains and hamstring strains accounted for 8.7% each respectively of all severe training injuries (>28 days absence) in the School Senior Cup across the season. Ankle fractures and knee sprains resulted in an average of 204 and 168 days absent from Rugby match and training activities across the season respectively.

Table 8: Frequency (%) of severe training injuries, average TDO (total days off)

	Frequency (%)	Average Total Days Off
School Senior Cup	Knee sprain (8.7%)	168
	Hamstring strain (8.7%)	69
	Ankle sprain (6.5%)	54
	Ankle fracture (4.3%)	204

#### 4.8 Medical Attention Training Injury (slight injury)

Any injury resulting in 0-1 days absent from Rugby match or training is considered a slight, or 'medical attention' injury and therefore were excluded from the analysis of time-loss injuries, as per best international practice. (1-3)

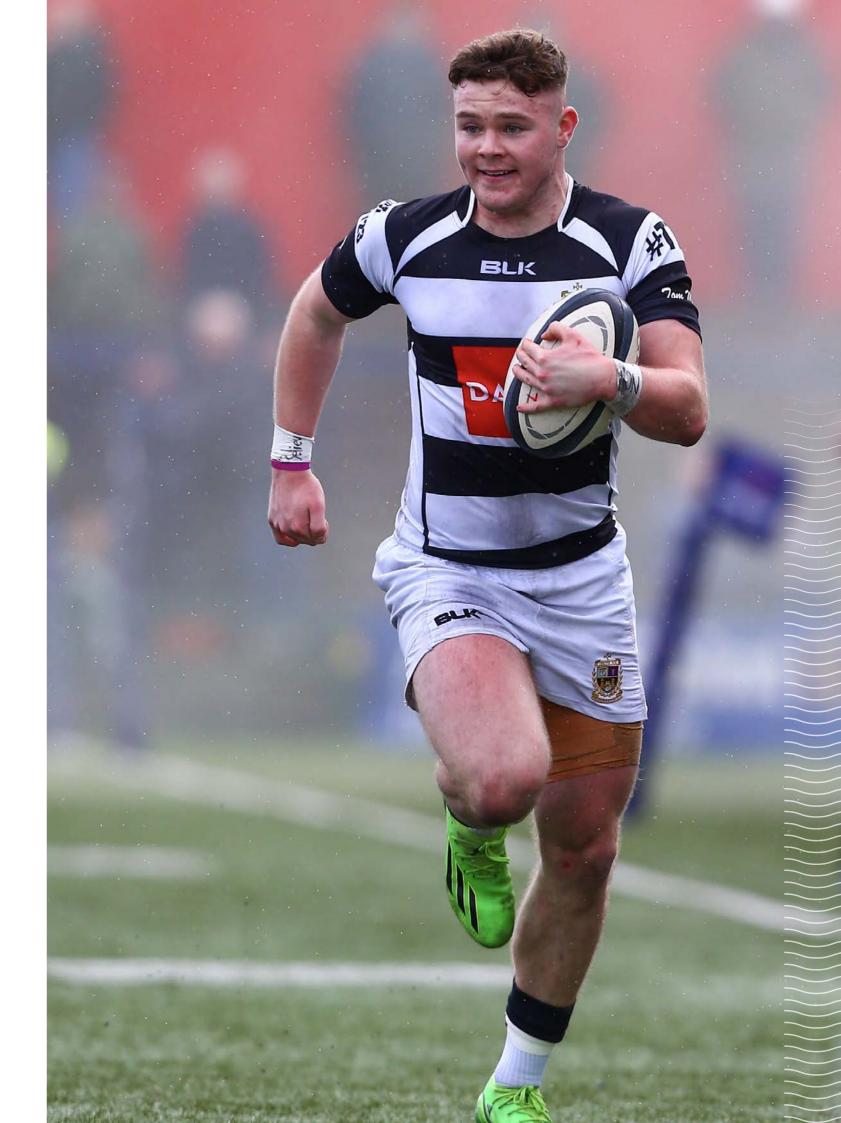
During the season there were zero medical attention training injuries reported in the School Senior Cup.

# 5.0 Future Directions of the IRIS Project

Following previous successful seasons of the IRISweb system implementation in Schools' Rugby, the 2023-2024 season will expand recruitment to include more nationwide representation of Senior Cup schoolboy teams. The Irish Rugby Football Union has opted in to the World Rugby Tackle Height Law Trial that will run for two years across adult amateur and also age-grade (schools) Rugby. IRIS will provide season comparison data at the end of year one and year two, comparing pre-trial injury rates with post-trial injury rates.

The IRIS Project began a study in the senior amateur club 2021-2022 season measuring injury epidemiology and programme adherence for an intervention programme called ENGAGE. ENGAGE is a bespoke Rugby readiness and robustness programme which aims to improve overall player performance and reduce injury risk. Through a structured and progressive 3-phase programme, ENGAGE prepares players for the immediate training ahead and duration of the competitive matches across the season. IRIS plan to explore this programme in the underage schools game in future seasons, with a heightened focus on coach support for programme delivery.

The IRIS project has also commenced a survey into impact-related breast injuries in adult female players in Ireland and internationally. This information will help inform all involved in the women's game regarding the prevalence of breast pain and injury and raise knowledge and awareness.



# **6.0 Glossary of Terms**

AC joint sprain (acromioclavicular joint sprain) refers to a tear of the ligaments that connect the collar bone (clavicle) to the shoulder (glenohumeral joint).

Ankle sprains are inclusive of lateral, medial and high ankle sprains.

Calf strain refers to a tear in the muscle group located in the back (posterior aspect) of the lower leg.

*Fracture* refers to a partial or complete break in the continuity of bone. Clavicle: collarbone (shoulder); Nasal: nose (facial).

Haematoma/contusion refers to bruising located anywhere in the body.

Hamstring strain refers to a tear in the muscle group located on the back (posterior aspect) of the thigh.

*Hip flexor strain* refers to a tear in the muscle group located at the hip and anterior thigh.

**Laceration** refers to a cut or tear in the skin.

*Meniscal injury* refers to various degrees of injury to the medial and lateral menisci (shock-absorbing tissue) found in the knee (tibiofemoral) joint.

**Perforated ear drum** is a burst eardrum.

**Shoulder dislocation/subluxation** refers to either partial or complete separation of the upper arm bone (humerus) from the shoulder socket (glenoid fossa).

**Shoulder labrum/cartilage** refers to injury to the glenoid labrum or articular cartilage of the glenohumeral joint.

Shoulder sprain refers to a tear in one of the ligaments in the shoulder (glenohumeral) joint.



## 7.0 Publications and Conferences

#### 7.1 Journal Publications

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