ENGLAND PROFESSIONAL RUGBY INJURY SURVEILLANCE PROJECT

SEASON REPORT 2022-23

RFU INJURY SURVEILLANCE PROJECTS

Professional Rugby Injury Surveillance Project (PRISP)

Gallagher Premiership and England Senior Men

Women's Rugby Injury Surveillance Project (WRISP)

Allianz Premier 15s and Red Roses

BUCS Super Rugby Injury Surveillance Project

Elite men's University Rugby

Community Rugby Injury Surveillance and Prevention (CRISP) Project

Adult men's (levels 3-9) and women's (levels 2-5) community rugby

Youth Rugby Injury Surveillance Project (YRISP)

Schoolboy rugby in under 13, under 15 and under 18 age groups

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The content of the report is based on data collected at the University of Bath

The authors would like to acknowledge with considerable gratitude, the work of the doctors, physiotherapists and strength and conditioning staff from the Premiership clubs and England teams who have recorded injury and training information throughout the project.

AT-A-GLANCE SUMMARY

Premiership Club Match Injuries

Injury Incidence: 76/1,000 hours
Injury Severity: 38 days
Injury Burden: 2,879 days absence/1,000 hours
Injury Event: 26% tackling; 24% being tackled
Most Common Injury: Concussion, 24% of all injuries (18.4/1,000 hours)
Injuries Per Club: 47
Total Days Absent Per Club: 1,775

Premiership Club Training Injuries

Injury Incidence: 3.2/1,000 hours
Injury Severity: 39 days
Injury Burden: 125 days absence/1,000 hours
Injury Event: 34% running
Most Common Injury: Hamstring muscle, 13% of all injuries (0.4/1,000 hours)
Injuries Per Club: 28
Total Days Absent Per Club: 1,116

England Rugby Match Injuries

Injury Incidence: 78/1,000 hours
Injury Severity: 18 days
Injury Burden: 1,465 days absence/1,000 hours
Injury Event: Being tackled 20%
Most Common Injury: Ankle injuries, 27% (22.3/1,000 hours)

Match Injury incidence and severity in the professional game (2014-15 to 2022-23)

How common an injury is (incidence) increases from left to right and how many days are lost per injury (severity) increases from bottom to top. Each data point represents a season. If the lines that extend from each point do not overlap with those for other points, then there is a significant difference between seasons.

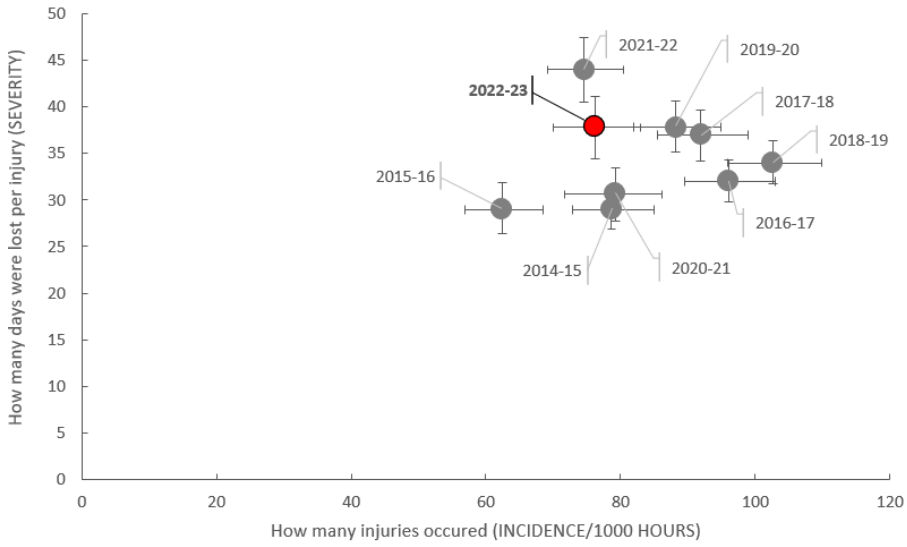

Figure 1: Incidence and severity of match injuries per season from 2014-15 to 2022-23

EXECUTIVE SUMMARY

The 2022-23 season saw 11 teams complete the season following the suspension of Worcester Warriors and Wasps in September and October, respectively. Consequently, a total of 203 fixtures were played in the Gallagher Premiership, Premiership Cup, and European competitions involving Premiership teams, while 52 (20%) scheduled fixtures were cancelled. This led to the lowest total match exposure (excluding the COVID-19-disrupted 2020-21 season) captured since the first season of the Professional Rugby Injury Surveillance Project. Training exposure data was not captured for Worcester Warriors and Wasps before their suspension, and therefore both clubs are excluded from the training injury data reported for the 2022-23 season. Match injury and exposure data from fixtures both clubs played prior to their suspension were included in the analysis.

- In 2022-23, the match injury incidence was 76 injuries per 1,000 hours. This is lower than the 2002-22 period mean of 86 injuries per 1,000 hours and equates to 1.5 injuries per team per match.

- On average, each match injury lasted 38 days. This has fallen from 2021-22 but is 11 days longer than the mean for the 2002-22 period.

- Concussion was the most reported match injury, accounting for 24% of all match injuries, with an incidence of 18.4 concussions per 1,000 hours. On average, each match concussion resulted in 18 days missed, which is similar to the average for the period 2016-22. The median days absent for match concussion injuries were 13.

- In this season, only 5% of match concussions returned in 7 days, which is significantly reduced from 25% in 2021-22, and the average of 37% over the period 2016-22. In the 2022-23 season, World Rugby updated the protocols for return to play following concussion to risk stratify players who require more conservative concussion rehabilitation. In addition, a new assessment of players was included in the return to play process as part of an evaluation funded by World Rugby.

- 50% of all match injuries were attributed to the tackle, with being tackled accounting for 24% and tackling accounting for 26% of all match injuries.

- 37% of all injuries were sustained during training, which is higher than the 2002-22 period mean of 31%, but the same as the previous two seasons. The incidence and average severity of training injuries was 3.2 injuries per 1,000 hours and 38 days, respectively. Full-contact training injury incidence in 2022-23 was double the 2012-22 mean (22.2 injuries per 1,000 hours vs 10.9 injuries per 1,000 hours), but a reduction in total exposure was observed during the same period (2,069 hours vs 9,550 hours). Training incidence and

severity in 2022-23 are the highest recorded during the injury surveillance period. This has resulted in a training injury burden of 125 days per 1,000 hours, which is above of the expected season-on-season variation.

- During the 2022-23 season, the incidence of match injuries was higher on artificial turf (89 injuries per 1,000 hours) compared to natural grass/hybrid (71 injuries per 1,000 hours), as was burden (3,282 days absence per 1,000 hours on artificial turf, 2,553 days absence per 1,000 hours on natural grass/hybrid) despite severity not differing. When aggregating ten seasons of match data, there is no difference in incidence between artificial turf and natural grass/hybrid pitches, although the mean severity of injuries on artificial turf is 6 days greater than on natural grass/hybrid.

- During the 2022-23 season, the severity of training injuries was higher on natural grass/hybrid compared to artificial turf (43 days vs 32 days), as was burden (224 days absence per 1,000 hours vs 177 days absence per 1,000 hours) despite incidence not differing. When aggregating eight seasons of training data, the incidence, severity, and burden of injury are not different between surface types.

- The incidence of match injury for the England Senior side for 2022-23 was 78 injuries per 1,000 hours, which is lower than the 122 injuries per 1,000 hours for the 2002-22 period mean. The mean severity of injuries was 19 days, which is below the 2002-22 period mean of 21 days.

- The incidence of rugby skills training injury for the England Senior side was 6.4 injuries per 1,000 hours, which is similar to the 2002-22 period mean of 5.9 injuries per 1,000 hours. The burden of rugby skills training injuries was 438 days absence per 1,000 hours, which is higher than the 2002-22 period mean of 161 days absence per 1,000 hours. There was one strength and conditioning training injury in the England Senior team in 2022-23.

- In 2022-23, five players retired because of injury and one because of illness. This compares to a mean of 12 retirements through injury and one through illness during the 2013-22 period.

Contents

KEY FINDINGS

MATCH INJURIES

In 2022-23, 529 match injuries were sustained in 6,943 match exposure hours, which equates to a match injury incidence of 76 injuries per 1,000 hours. This is lower than the 2002-22 period mean incidence of 86 injuries per 1,000 hours (**Figure 2**) and equates to approximately 47 injuries per club or 1.5 injuries per club per match during the 2022-23 season.

Note – for a normal distribution, 95% of all data should fall between (Mean – 2 x standard deviation and (Mean + 2 x standard deviation).

Figure 2: Incidence

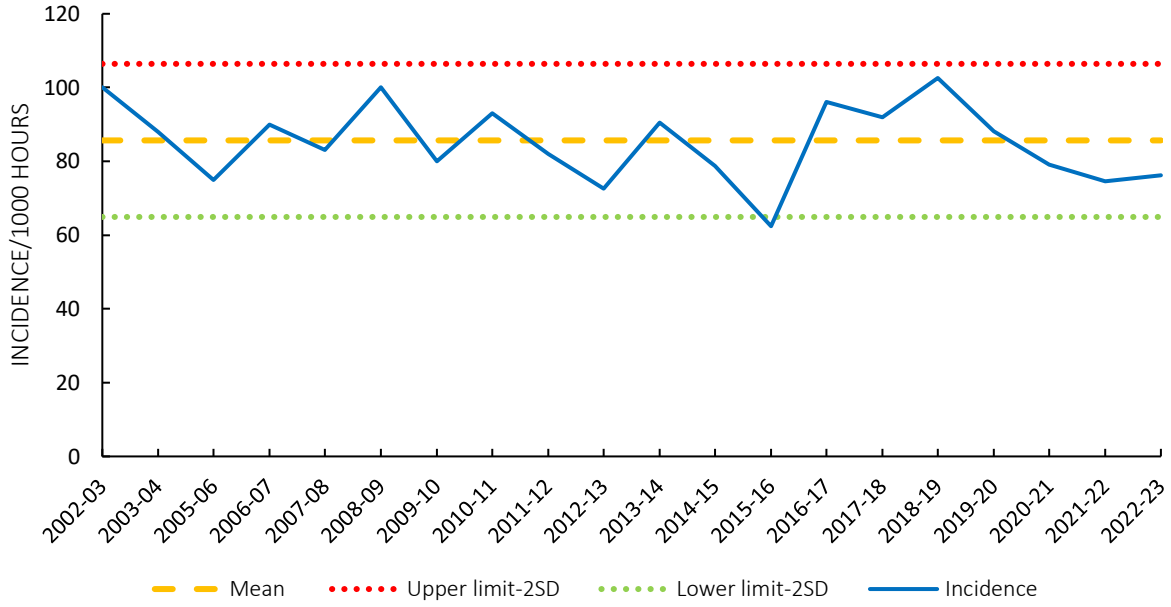

Figure 2: Incidence of match injuries over the surveillance period with mean ± 2 x standard deviations shown

The mean days absent per match injury for the 2022-23 season was 38 days, which has fallen from a high of 44 days in 2021-22 but is still 11 days above the 2002-22 period mean (**Figure 3**). Mean days absent are appropriate in observing changes in the severity of injuries over time but can be skewed by long-term injuries. Thus, the median days absent is another helpful measure. In 2022-23, the median days absent was 17, which has fallen from a high of 20 days in 2021-22 but remains the second highest for the 2002-22 period, which has a median of 10 days absent (**Table S1**).

Injury burden is calculated by multiplying the average incidence by days lost per injury. The injury burden for 2022-23 was 2,879 days per 1,000 hours, which is within the normal season-on-season variation and is lower than that in five of the previous six seasons (Figure 4) (Table S1).

Figure 3: Days absent

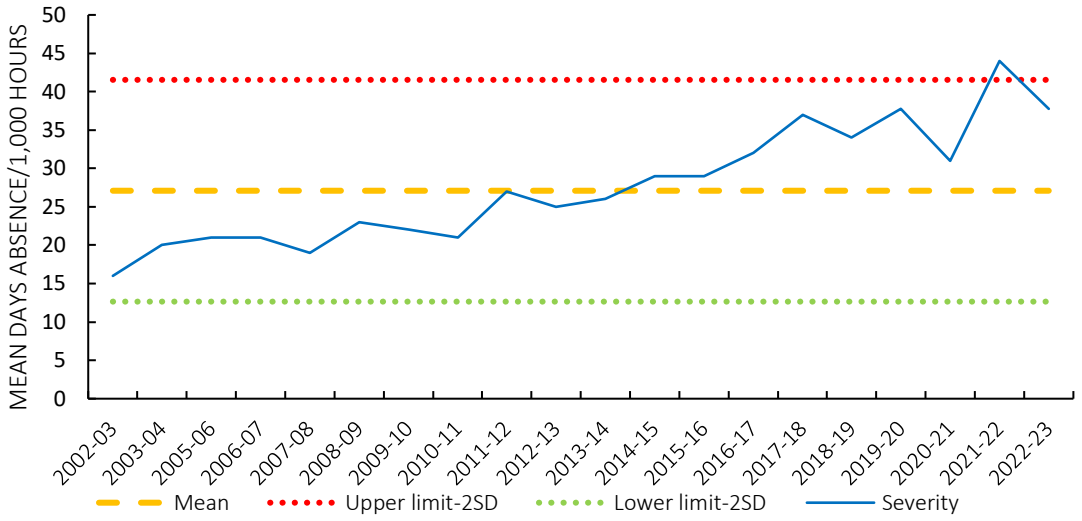

Figure 3: Mean days absent per match injury over the surveillance period with mean ± 2 x standard deviation shown.

Figure 4: Burden

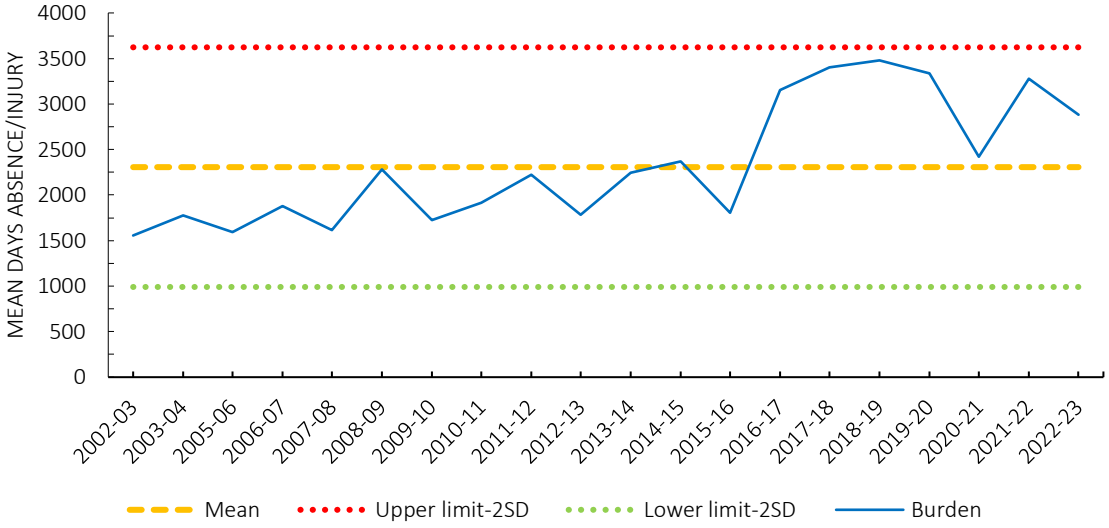

Figure 4: Burden of match injuries over the surveillance period with mean ± 2 x standard deviation shown.

TRAINING INJURIES

In 2022-23 there were 312 time-loss training injuries, which represents 37% of total injuries for the season. The incidence of training injuries was 3.2 per 1,000 hours (**Figure 5**), the highest since the Injury Surveillance Project began, but is within the normal season-on-season variation. This corresponds to 28 training injuries per club. The mean days absent in 2022-23 was 39, also representing the highest training injury severity since the Injury Surveillance Project began and is 12 days above the average for the 2002-22 period (**Figure 6**). In the 2022-23 season, 19% of training injuries returned within 2-7 days, which is almost half of the 2002-22 period mean (36%), and injuries leading to more than 84 days lost were almost double (12%) than the period mean (7%), explaining high severity for the current season. The burden of training injuries in 2022-23 was 125 days per 1,000 hours, which is outside of the expected season-on-season variation (120 days per 1000 hours) (**Figure 7**) (**Table S4**).

Figure 5: Incidence

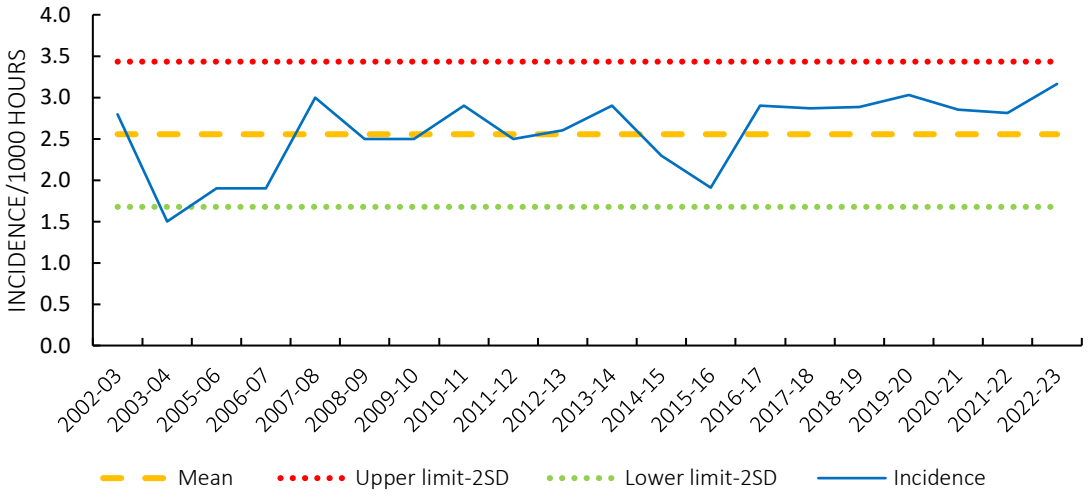

Figure 5: *Incidence of training injuries over the surveillance period with mean ± 2 x standard deviation shown.*

Figure 6: Days absent

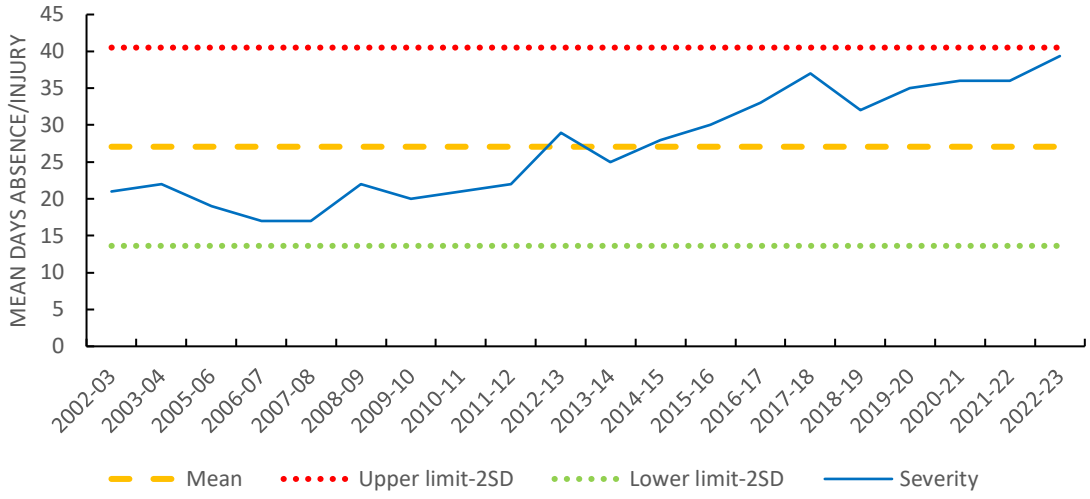

Figure 6: *Mean days absent per training injury over the surveillance period with mean ± 2 x standard deviation shown.*

Figure 7: Burden

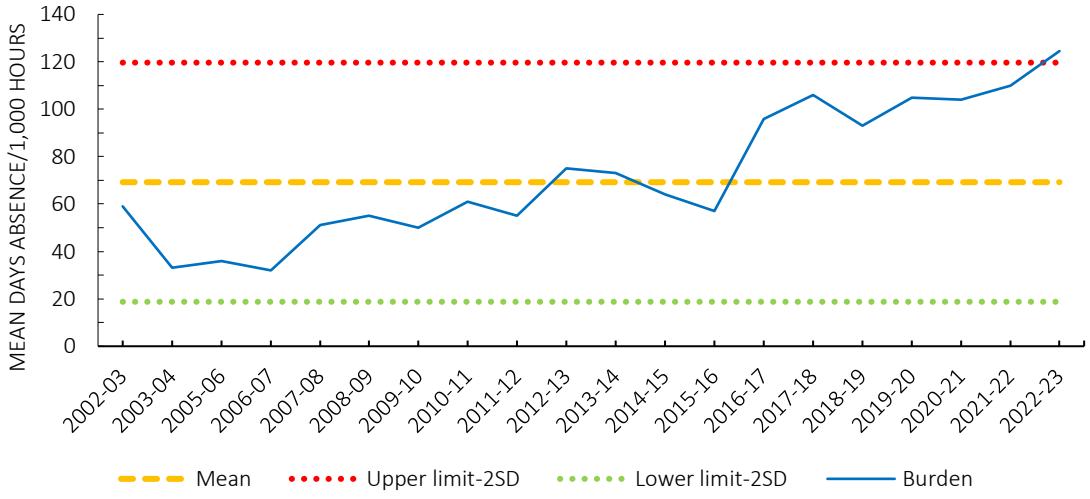

Figure 7: *Burden of training injuries over the surveillance period with mean ± 2 x standard deviation shown.*

CONCUSSION

Multiple refinements to the process of concussion recognition and management have been introduced over the surveillance period. As such, the rate of concussion can be described to have followed three phases since 2002: stability (2002-2009), growth (2009-2016) and re-stabilisation (2016-2022). The most appropriate comparison for the concussion data for 2022-23 is with the re-stabilisation (2016-2022) period mean. In the 2022-23 season, World Rugby updated the protocols for return to play following concussion to risk stratify players who require more conservative concussion rehabilitation, in effect increasing the earliest return-to-play following concussion injury to 12 days for those with a concussion history or specific presentations at the time of injury. An Independent Concussion Consultant (ICC) review is also required before returning to play for those expecting to return within 10 days and for those at high risk of prolonged recovery. In addition, a new assessment of players was included in the return to play process as part of the Rugby Readiness and Rehabilitation Enhanced and Personalised (RREP) study funded by World Rugby. Further information regarding this study will be shared by World Rugby in due course.

In 2022-23, there were 128 match concussions accounting for 24% of all match injuries, which is the same as the previous season and similar to the 2016-22 period mean of 23% (Table S5). There were 35 training concussions sustained in 2022-23, representing 21% of all concussions, which is the same as the previous season and higher than the 2016-22 period mean of 16% (Table S5). In 2022-23, concussions accounted for 11% of all training injuries, which is the same as the previous season and higher than the 2016-22 period mean of 7% (Table S5). Fourteen percent of players (107 players) sustained at least one match concussion and 3% (20 players) sustained more than one match concussion during the 2022-23 season.

In 2022-23, the incidence of match concussion was 18.4 concussions per 1,000 hours, which is within the expected season-to-season variation and below the average for the period 2016-22 (Figure 8). This equates to one concussion every 1.6 matches.

Figure 8: Concussion Incidence

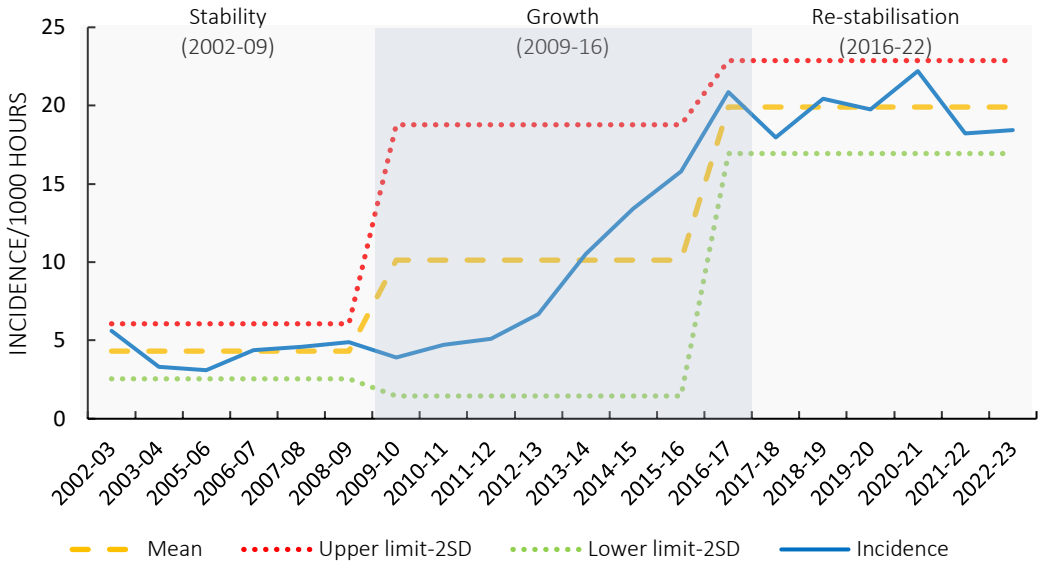

Figure 8: Incidence of reported match concussions by season with mean ± 2 x standard deviation shown.

The mean days of absence per match concussion was 18 days in 2022-23 (**Figure 9**). This is similar to the 2016-22 period mean of 19 days, and higher than the 2002-22 period mean of 14 days. The median severity of concussion was 13 days, compared to the 2002-22 period mean of 8 days (**Table S6**).

When a match concussion occurred in 2022-23, players returned in 7 days in 5% of cases, which is substantially lower than the 37% for seasons 2016-22 (**Table 1**). In 2022-23, players returned following a match concussion in 8-14 days in 52% of cases, higher than the 2016-22 average of 33%. In 2022-23, players returned following a match concussion in 15-28 days in 33% of cases, which is double the 2016-22 mean of 16%. When a training concussion occurred in 2022-23, players returned in 7 days in 11% of cases, which is substantially lower than the 31% for seasons 2016-22. In 2022-23, players returned following a training concussion in 15-28 days in 37% of cases, which is double the 2016-22 mean of 18% (**Table 1**). These changes are likely a result of the changes in concussion return-to-play processes for the 2022-23 season.

In 2022-23, 1% of cases from matches had not returned within 84 days (**Table 1**). No training concussions resulted in more than 84 days absence. It is possible that, in some cases, the time to return from a concussion is extended as a result of conservative management and/or review from an external specialist. **Figure 10** demonstrates the cumulative frequency of match concussion return-to-play absences by severity grouping. The burden of match concussion in 2022-23 was 331 days of absence per 1,000 hours (**Table S6**).

Season	Match Proportion %					Training Proportion %				
	7 days	8-14 days	15-28 days	29-84 days	>84 days	7 days	8-14 days	15-28 days	29-84 days	>84 days
2016-17	40	35	14	7	4	29	43	19	10	0
2017-18	39	34	14	10	4	56	25	9	6	3
2018-19	37	31	17	9	6	26	39	16	13	5
2019-20	42	33	15	8	3	31	31	31	8	0
2020-21	43	29	17	8	3	18	47	18	12	6
2021-22	25	39	19	12	5	26	42	16	16	0
2022-23	5	52	33	9	1	11	40	37	11	0
MEAN 2016-22	*37*	*33*	*16*	*9*	*4*	*31*	*38*	*18*	*11*	*2*

***Table 1**: Proportion of match and training concussions by severity grouping*

Figure 9: Concussion days absent

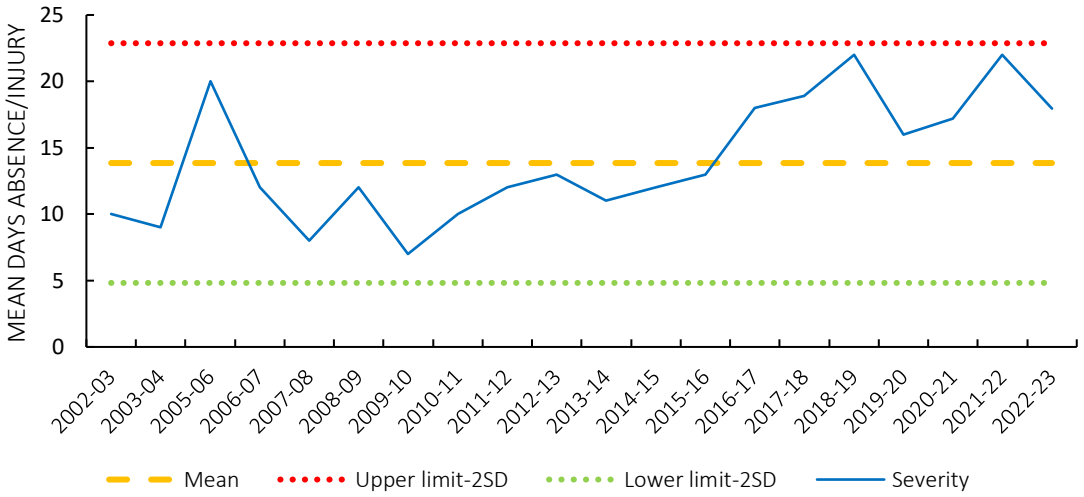

***Figure 9:** Mean days absent per reported match concussions by season with mean ± 2 x standard deviation shown.*

Figure 10: Concussion days absent (%)

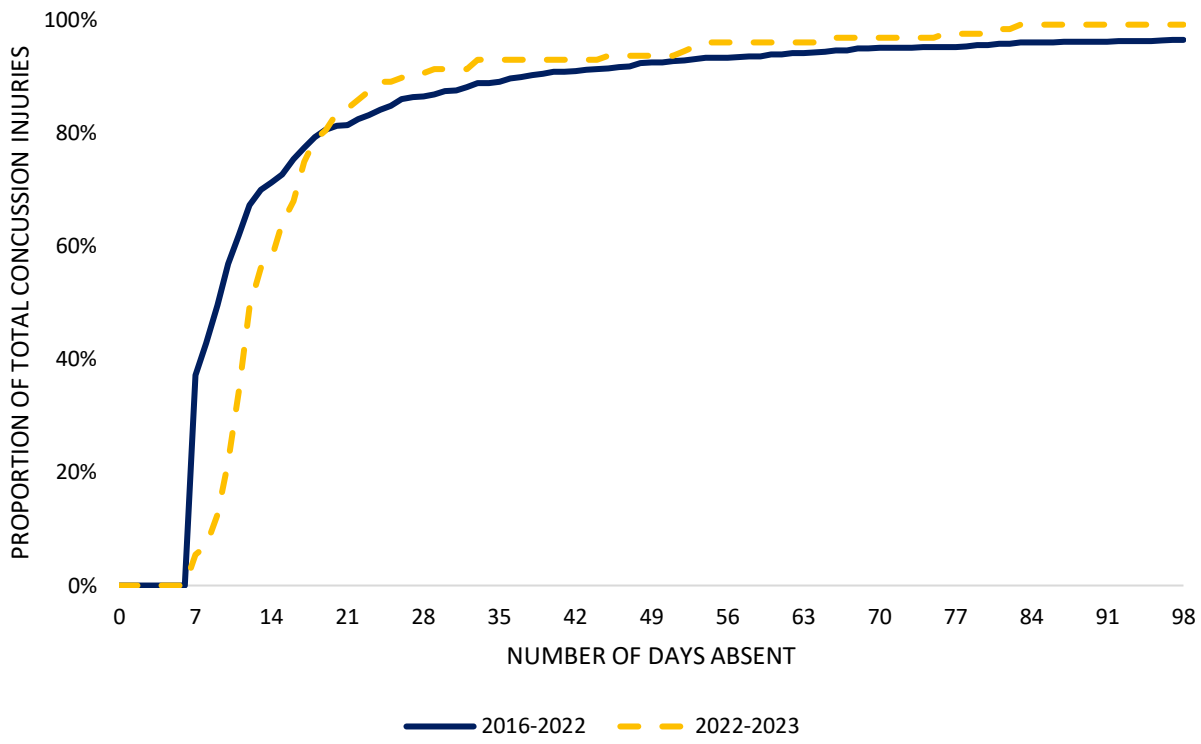

Figure 10: *Days absent for reported match and training concussions as a percentage between 2016-22 (solid line) and 2022-23 (dashed line).*

THE TACKLE

The tackle was the match event most associated with an injury in 2022-23, with an injury incidence of 38.6 per 1,000 hours (50% of all injuries). Specifically, the incidence of injuries to the ball carrier was 18.4 per 1,000 hours (24% of all injuries), and the incidence to the tackler was 20.2 per 1,000 hours (26% of all injuries) (**Figure 11**). The mean days of absence per injury to the ball carrier and tackler were 41 and 34 days, respectively (**Figure 12**). The burden of injury to the ball carrier was 757 days per 1,000 hours, and 692 days per 1,000 hours to the tackler (**Table S7**). The most common injury during the tackle to both the ball carrier and tackler was a concussion, making up 21% of the ball carrier and 42% of tackler injuries.

Figure 11: Incidence

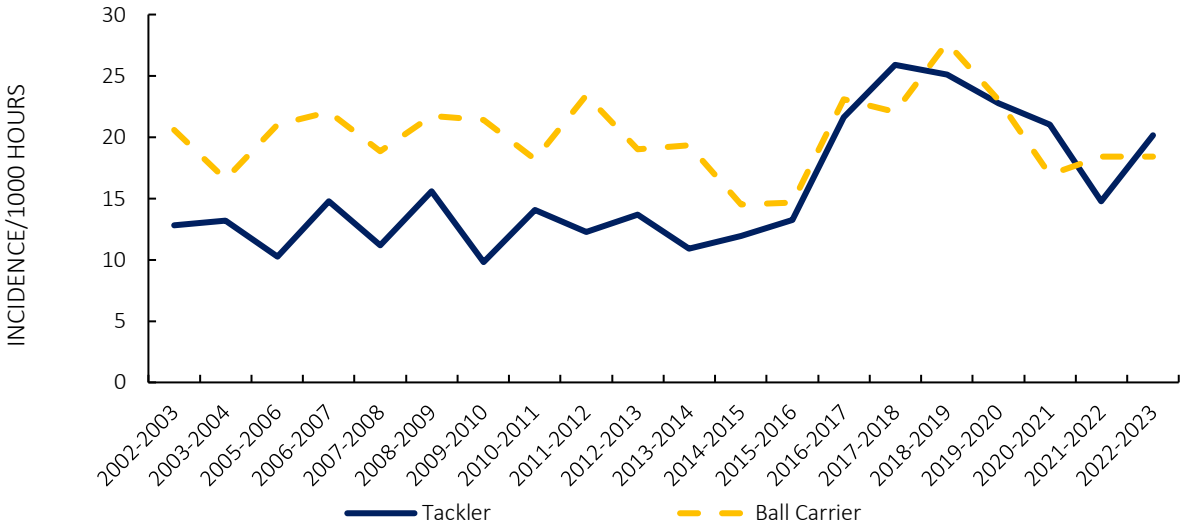

Figure 11: *Incidence of tackle-related injuries by season to tacklers (solid line) and ball carriers (dashed line).*

Figure 12: Days absent

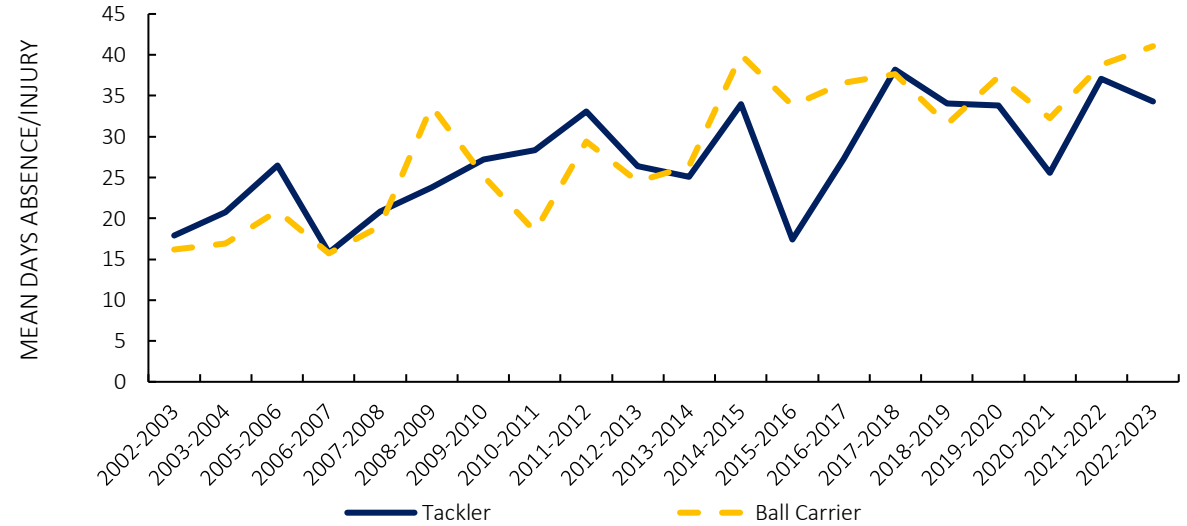

Figure 12: *Mean days absent per tackle-related injury by season to tacklers (solid line) and ball carriers (dashed line).*

Data from OPTA (https://optaprorugby.com/) indicates that since the 2013-14 season, the number of tackles per match increased until 2018-19, and has since levelled. A tackle is defined as "a player has attempted to halt the progress or dispossess an opponent in possession of the ball" (OPTA / Stats Perform). In 2022-23 there were an average of 128 tackles per team per match, compared with the average of 102 tackles per team per match in the 2013-14 season. Calculating the rate of injury per 1,000 tackle events reveals that the propensity of all tackle-related injuries in 2022-23 was 6.0 per 1,000 tackle events, which is similar to the average of 6.1 per 1,000 tackle events across the 2013-22 period. There was an increase in the propensity of tackle-related injuries to the tackler, increasing from 2.2 per 1,000 tackle events in 2021-22 to 3.1 per 1,000 tackle events in 2022-23. This is similar to the propensity of tackle-related injuries to the tackler in 2020-21 (3.3 per 1,000 tackle events) (Figure 13).

Figure 13: Propensity/1000 tackles

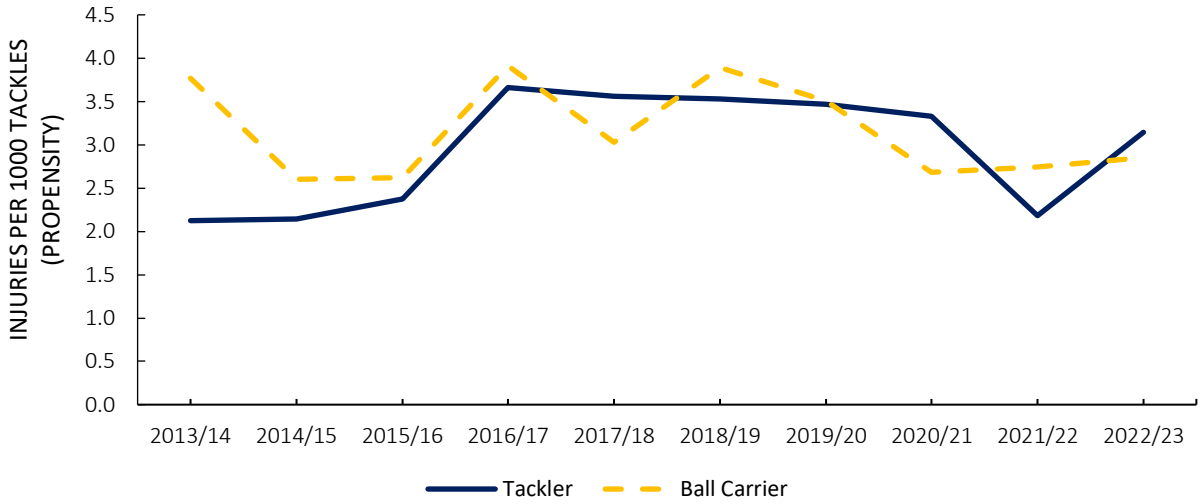

Figure 13: *Propensity of tackle-related injuries* ***to tacklers (solid line) and ball carriers (dashed line).***

INJURIES LEADING TO RETIREMENT

Since 2013-14, the injury surveillance report has published the number of players who have retired with injury or illness being cited as the reason for retirement. In 2022-23, four players retired because of injury and one due to illness.

Season	Number retired through illness	Number retired through injury
2013-14	2	23
2014-15	1	11
2015-16	1	10
2016-17	0	19
2017-18	0	10
2018-19	1	9
2019-20	0	14
2020-21	0	5
2021-22	2	6
2022-23	1	5

The injuries leading to player retirement were sustained at the following anatomical locations in 2022-23:

LOWER LIMB	2
THORACIC AND LUMBER SPINE	1
TRUNK	0
UPPER LIMB	0
HEAD/NECK	2

SURFACE TYPE

In 2022-23, 28% of match exposure was on artificial turf pitches. There were 357 injuries in matches played on natural grass/hybrid pitches (5,027 exposure hours) and 171 injuries in matches on artificial turf pitches (1,915 exposure hours). Aggregating ten seasons of match data reveals that match injury incidence was not different for natural grass/hybrid and artificial turf (grass/hybrid: 81 injuries per 1,000 hours vs artificial: 84 injuries per 1,000 hours). However, in 2022-23 the incidence of match injuries was substantially different between surface types. The incidence of match injuries on grass/hybrid pitches in 2022-23 was 71 per 1,000 hours, compared to 89 per 1,000 hours on artificial turf (Table 2). Over the course of ten seasons, the mean days absent per injury on artificial turf was 39 days per injury, which is 6 days greater than natural grass/hybrid at 33 days per injury. Until the 2021-22 season, the aggregated season data trend for match injuries was consistent, with mean days absent per injury for artificial turf ranging from 5 to 7 days greater than natural grass/hybrid. However, similar to 2021-22, there was no difference between the playing surfaces in 2022-23 (36 days absent per injury on grass/hybrid, and 37 days absent per injury on artificial turf). Over the 2013-23 period, the median days of absence on artificial turf were 14 days which is similar to the 13 days reported on natural grass/hybrid. In 2022-23 however, the median days of absence on both playing surfaces was 17. The higher incidence of injury on artificial turf in 2022-23 has led to an increased injury burden (3,282 days absence per 1,000 hours) compared to natural grass/hybrid (2,553 days absence per 1,000 hours) (Table 2). This is similar to the injury burden in the period 2013-23 (grass/hybrid pitch: 2,687 days absence per 1,000 hours, artificial turf: 3,236 days absence per 1,000 hours). In terms of the patterns of injury on different surfaces, we have previously reported a higher burden of posterior thigh, hip/groin and foot/toe injuries sustained when playing on artificial turf versus natural/hybrid surfaces.

Training on artificial turf accounted for 23% of on-pitch training exposure. In 2022-23, there were 192 training injuries on natural grass/hybrid (36,431 exposure hours) and 60 on artificial turf (10,804 exposure hours). The incidence of training injury on natural grass/hybrid was 5.3 injuries per 1,000 hours, which is similar to the 5.6 injuries per 1,000 hours on artificial turf. Despite the mean severity being relatively similar on both training surfaces during the period 2015-23, the mean severity of training injuries was substantially different between the training surfaces (43 days absence per injury on natural grass/hybrid, compared to 32 days absence per injury on artificial turf). Consequently, the burden of training injuries between surface types differed (224 days absence per 1,000 hours on natural grass/hybrid, and 177 days absence per 1,000 hours on artificial turf). When aggregating seven seasons worth of training data, for which training surface information is available, the incidence, severity and burden of injury were not substantially different between surface types (Table 2).

		Grass		Artificial Turf	
		2013-23	**2022-23**	**2013-23**	**2022-23**
Match	Incidence (95%CI)	81 (79 - 84)	71 (64 - 79)	84 (79 - 88)	89 (77 - 104)
	Mean severity (95%CI)	33 (32 - 34)	36 (32 - 40)	39 (37 - 41)	37 (32 - 43)
	Median severity	13	17	14	17
	Burden (95%CI)	2687 (2614 - 2762)	2553 (2301 - 2832)	3236 (3062 - 3419)	3282 (2825 - 3813)
		2015-23	**2022-23**	**2015-23**	**2022-23**
Training	Incidence (95%CI)	4.2 (4.0 - 4.3)	5.3 (4.6 - 6.1)	4.0 (3.7 - 4.3)	5.6 (4.3 - 7.2)
	Mean severity (95%CI)	36 (35 - 38)	43 (37 - 49)	39 (36 - 42)	32 (25 - 41)
	Median severity	18	23	20	18
	Burden (95%CI)	151 (145 - 158)	224 (194 - 258)	153 (141 - 165)	177 (137 - 228)

Table 2: *Incidence, severity and burden of match and training injuries sustained on natural grass/hybrid vs artificial turf*

TRAINING INJURY EVENT

In 2022-23, the incidence of injuries associated with rugby skills - contact training was similar to the 2002-22 period mean (5.3/1,000 hours vs 5.9/1,000 hours), and the incidence of injuries associated with conditioning non-weights training was double compared to the period mean (10.1/1,000 hours vs 5.4/1,000 hours). In contrast, the incidence of injuries associated with conditioning weights was half of the 2002-22 period mean during the 2022-23 season (0.3/1,000 hours vs 0.7/1,000 hours). The incidence of rugby skills – non-contact was similar in 2022-23 to the 2002-22 period mean (2.0/1,000 hours vs 1.6/1,000 hours) (**Figure 14**). During the 2022-23 regular season, on average a player spent 5 minutes in full-contact training, 43 minutes in controlled-contact training, 26 minutes in semi-contact training, 37 minutes in rugby skills non-contact training, 73 minutes in conditioning weights training, and 14 minutes in conditioning non-weights training per week.

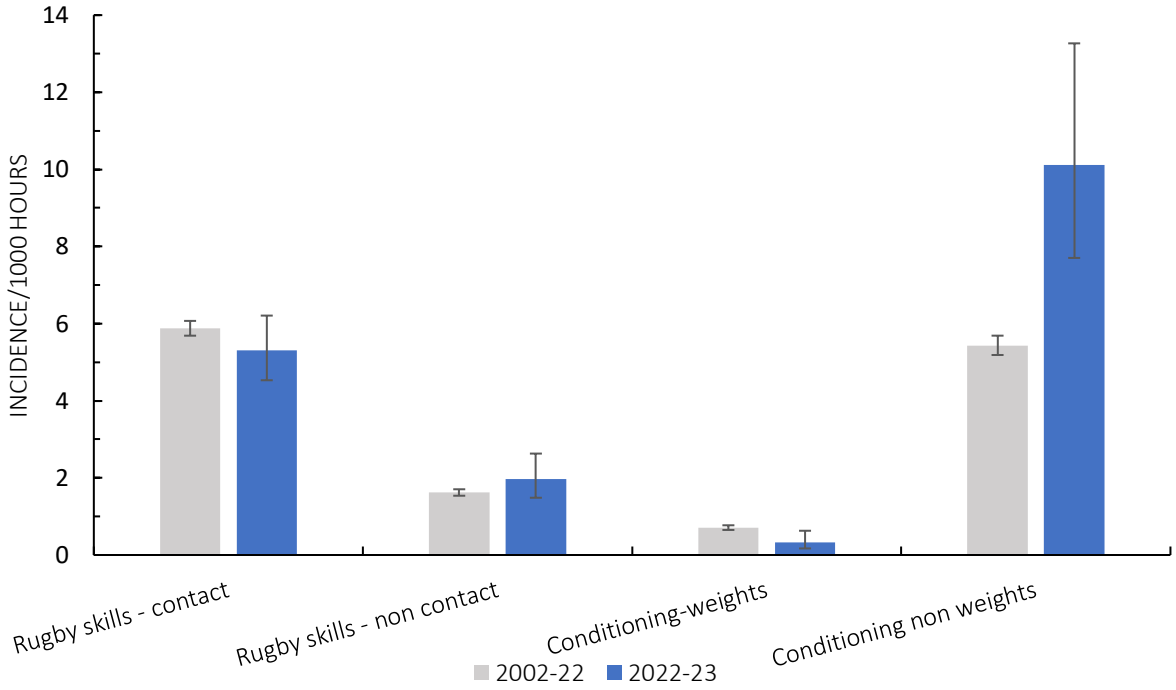

Figure 14: *Incidence of training injury types for the 2022-23 season compared with the surveillance period (2002-22). Error bars show 95% CIs.*

In 2022-23, the incidence of "full contact" training injury was the highest since the injury surveillance data became available in 2012 and is more than double the 2012-22 period mean (22.2/1,000 hours vs 10.9/1,000 hours) (**Table 3**). Full contact training exposure in 2022-23 was substantially lower than the 2012-22 period mean (2,069 hours vs 9,550 hours). In 2022-23, the most commonly occurring injury in "full contact" training sessions was a concussion (28% of all full contact training injuries). In "semi-contact" sessions, concussion and ankle injuries were the most commonly occurring injuries (both were 26% of all semi-contact training injuries).

	FULL CONTACT TRAINING			SEMI CONTACT TRAINING		
	Incidence	Severity	Burden	Incidence	Severity	Burden
2012-13	9.0	22	199	4.1	40	163
2013-14	10.8	26	278	4.5	14	64
2014-15	4.4	32	141	4.8	32	151
2015-16	11.1	28	306	3.2	25	78
2016-17	16.2	35	562	4.7	37	175
2017-18	13.2	44	577	6.0	32	195
2018-19	13.3	34	457	5.6	32	179
2019-20	17.6	32	561	6.3	35	218
2020-21	6.4	34	268	4.8	42	162
2021-22	13.4	43	496	3.9	45	147
2022-23	22.2	39	774	1.8	21	84
2012-22	*10.9 (10.3 - 11.6)*	*33 (31 - 35)*	*359 (255 - 505)*	*4.9 (4.6 - 5.2)*	*33 (31 - 36)*	*162 (115 - 228)*

Table 3: *Incidence, severity and burden of full- and semi-contact related injuries.*

INJURY DIAGNOSIS

For the twelfth successive season, concussion was the most common match injury (18.4 concussions per 1,000 hours). Calf muscle injuries were the second most common match injuries (4.3 injuries per 1,000 hours). For the seventh season in succession, concussion was the highest burden match injury (331 days absent per 1,000 hours). Hamstring muscle injuries were the match injuries with the second highest burden (208 days absent per 1,000 hours).

MATCH INJURY

Figure 15: Most common

Figure 15: *Ranking of the top 5 most common match injuries for each season with the associated incidence rates (injuries/1,000 hours).*

Figure 16: Highest burden

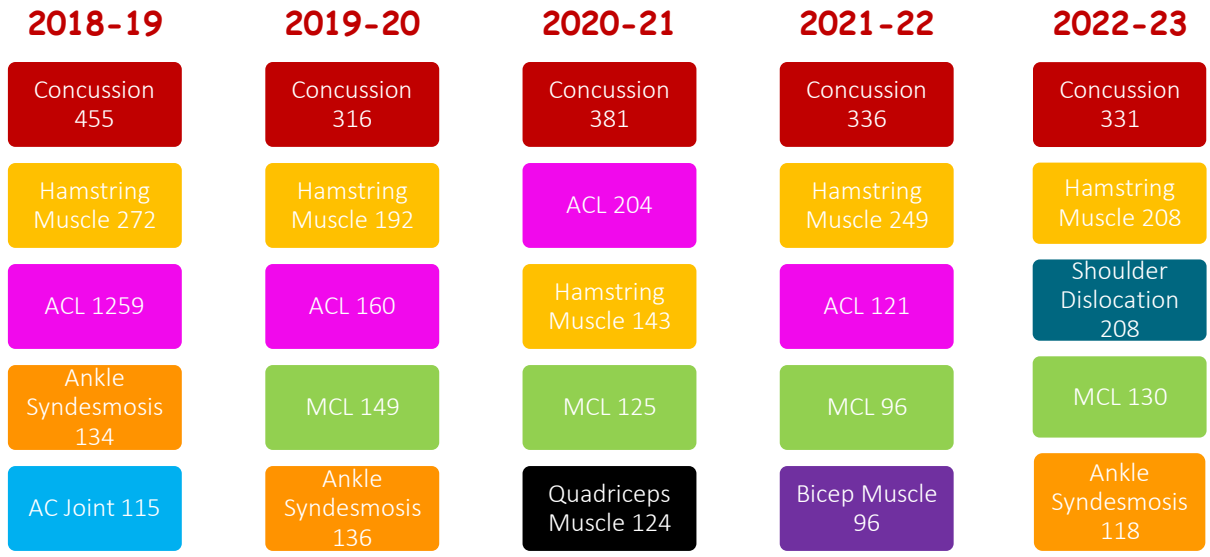

Figure 16: *Ranking of the top 5 highest burden match injuries for each season with the associated days absence per 1,000 hours.*

TRAINING INJURY

Hamstring injuries were the most common training injury in 2022-23 and have been for six consecutive seasons. Concussion training injuries were the second most common (0.35 concussions per 1,000 hours). For the first time since 2016-17, calf muscle training injuries were the highest burden, ahead of hamstring muscle injuries, which have been the highest burden in the five seasons before.

Figure 17: Most common

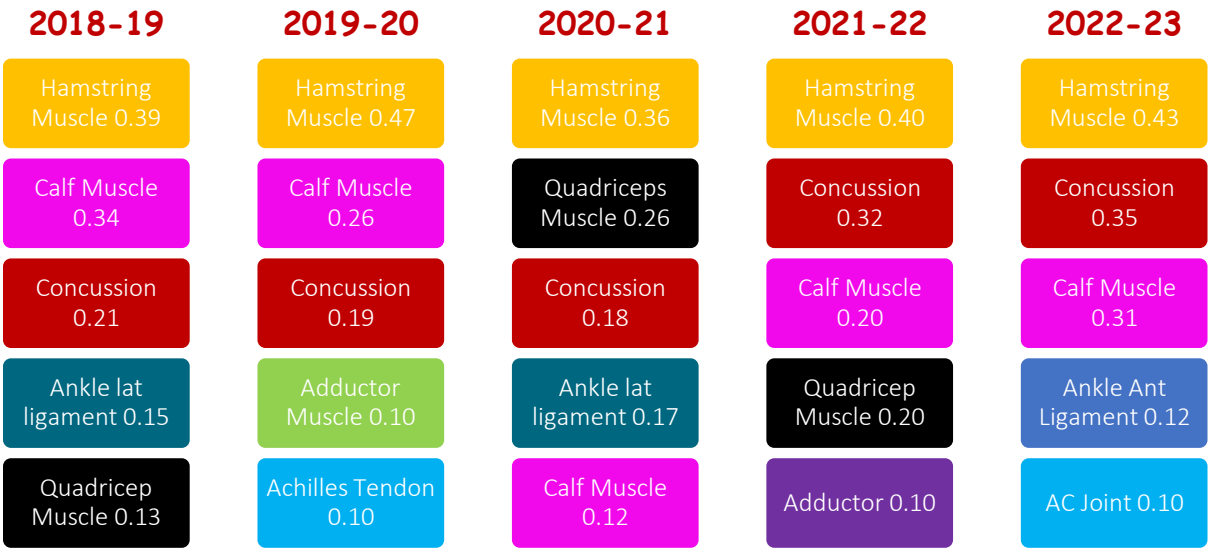

Figure 17: *Ranking of the top 5 most common training injuries for each season with the associated incidence rates (injuries/1000 hours).*

Figure 18: Highest burden

Figure 18: *Ranking of the top 5 highest burden training injuries for each season with the associated days absence per 1000 hours.*

ENGLAND SENIOR MEN'S SIDE

Match Injuries

The England Senior Men's team played 9 matches in the 2022-23 season, with 14 recorded injuries. The incidence of match injuries for the England Senior side in 2022-23 was 78 injuries per 1,000 hours. This is substantially lower than the 121 injuries per 1,000 hours for the 2002-22 period mean (Table S8). The mean days absent per match injury was 19 days, which is similar to the mean for the surveillance period (21 days). The overall burden of match injury was 1,448 days absence per 1,000 hours, which is considerably lower than the 2002-22 period mean burden of 2,485 days absence per 1,000 hours and reflects the lower incidence (Table S8). England Senior Men's team injury burden was the lowest since the 2008-09 season.

Training Injuries

In 2022-23, the incidence of training injuries was 6.4 injuries per 1,000 hours, which is similar to the 2002-22 period mean of 5.9 injuries per 1,000 hours. In 2022-23, the 2-7 days severity grouping represented 55% of training injuries in the England squad, which is similar to the 2002-22 period mean of 52% and in contrast to 19% of injuries recorded by Premiership clubs (Table S9). Overall, there was a lower proportion of training injuries lasting 8-28 days, and a higher proportion of 29-84 days and >84 days in the 2022-23 season compared to the 2002-22 period mean (Table S10).

For injuries in rugby skills sessions (full-contact, controlled-contact, semi-contact, and non-contact), the incidence was 9.4 injuries per 1,000 hours, which is similar to the 2002-22 period mean of 7.3 injuries per 1,000 hours. The burden of rugby skills injuries was 438 days absence per 1,000 hours, which is higher than the 2002-22 period mean of 161 days absence per 1,000 hours (Table S11). There was only one strength and conditioning injury in the England squad in 2022-23.

NB: The relatively small number of senior England training sessions and training injuries included in the study each season means that the training injury risk for England should be interpreted with caution. The small sample size means that any differences in risk are much more likely to have arisen "by chance" rather than to be the result of a "true" difference, reflected in the wide 95% confidence intervals.

RFU INJURY SURVEILLANCE PROJECT METHODS

Written informed consent was obtained from 772 of 848 (91%) registered Premiership squad players for the 2022-23 season. A total of 348 team games were included in the analyses for the 2022-23 season.

Injuries from consented 1st team squad (including academy players that trained regularly with the 1st team) players sustained in training and in all matches in the Gallagher Premiership, Premiership Cup, and European Competitions (Champions and Challenge Cup) were included. Injuries sustained while players represented England were reported and analysed separately.

Match injury data were provided by all 13 Premiership clubs in 2022-23. However, due to the suspension of Wasps and Worcester Warriors, no training exposure data was collected for them. Consequently, their training injuries were excluded from the analysis, therefore training injury analysis contained data from the 11 teams that completed the season. A complete set of data were also collected from the England senior side. Medical personnel at each Premiership club and the England senior team reported the details of injuries and illnesses sustained by a player at their club/team that were included in the study group together with the details of the associated injury event using an online medical record keeping system, "Rugby Squad" (The Sports Office UK Ltd). Strength and conditioning staff recorded the squad's weekly training schedules and exposure on a password-protected online system, "Elitehub". Team match days were also recorded by strength and conditioning staff. Injury and illness diagnoses were recorded using the Orchard Sports Injury Classification System (OSICS) version 10.1. This sports-specific injury classification system allows detailed diagnoses to be reported and injuries to be grouped by body part and injury pathology.

The definitions and data collection methods utilised in this study are aligned with the World Rugby Consensus statement on injury definitions and data collection procedures for studies of injuries in Rugby Union.

In the instance that a player retries from injury within the same season that their injury was sustained, this injury is included in all incidence calculations and excluded from all severity and burden calculations.

Several quality control processes are embedded within the PRISP data collection process to ensure the validity and integrity of the data being presented within this report. All match exposures are crosschecked against fixture lists for each club at the end of the season to ensure match exposure is correct. During each match in the Gallagher Premiership and Premiership Cup, a match report card is completed by an official, which notes the reasons for substitutions (i.e., tactical, injury, blood substitution, head injury assessment etc.). These report cards are cross-referenced against match injuries entered in the PRISP database to ensure that all injuries sustained are captured.

Furthermore, concussions reported in the PRISP database are crosschecked with SCRM, the World Rugby HIA protocol and concussion management platform, to ensure all concussions are logged correctly. Finally, before the PRISP data is analysed, all injuries are checked for duplicates and inconsistencies and final approval of the included injuries is sought from the medical lead in each club.

PROJECT DEFINITIONS

Time-loss injury

A time-loss injury was defined as 'any injury that prevents a player from taking a full part in all training activities typically planned for that day and/or match play for more than 24 hours from midnight at the end of the day the injury was sustained'. For example, if a player was injured during a match on Saturday and he was able to take a full part in training on Monday, the incident would not be classed as an injury. If the player's training was restricted on Monday due to the injury received on Saturday, the incident would be classed as a time-loss injury and reported.

Injury severity

Injury severity was measured as time (days) lost from competition and practice and defined as the number of days from the date of the injury to the date that the player was deemed to have regained full fitness not including the day of injury or the day of return. A player was deemed to have regained full fitness when he was 'able to take a part in training activities (typically planned for that day) and was available for match selection.'

Injury incidence and days absence

The likelihood of sustaining an injury during match play or training is reported as the injury incidence. The injury incidence is the number of injuries expressed per 1,000 player-hours of match exposure (or training exposure).

Burden

The burden of injury is a measure that combines the frequency and severity of injuries. Burden is measured as the day's absence per 1,000 player-hours of exposure.

Median severity

The median severity is the middle value when all the severity values are lined.

PUBLICATIONS

Further detailed information on injury risk in this cohort of players can be obtained from the following peer reviewed publications that have been produced as part of the Professional Rugby Injury Surveillance Project:

Publications

- Williams, S., Kay, E., Bryan, R., Lambert, M., Cross, M., West, S. W., Kemp, S., & Stokes, K. A. The influence of match exposure on injury risk in elite men's rugby union. Journal of Science and Medicine in Sport. 2023; 6(1), 25-30.
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- West, S., Cross, M., Trewartha, A., Brooks, J., Kemp, S., Locke, D., Ahmed, O. and Stokes., K. Trends in match concussion incidence and return-to-play time in male professional Rugby Union: A 16-season prospective cohort study, Brain Injury, 35:10, 1235-1244, DOI: 10.1080/02699052.2021.1972142
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- Fuller, G.W., Cross, M.J., Stokes, K.A. and Kemp, S.P.T. 2018. King-Devick concussion test performs poorly as a screening tool in elite rugby union players: a prospective cohort study of two screening tests versus a clinical reference standard. British Journal of Sports Medicine. doi: 10.1136/ bjsports-2017-098560.
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SUPPLEMENTARY DATA

Table S1 : *Match injury incidence, severity and burden 2002-23.*

Season	Exposure	Number of match injuries	Incidence/1000 hrs (95% CI)	Injuries per club per match	Mean severity (days) (95%CI)	Burden/1000 hrs (95% CI)	Median Severity
2002-03	7480	748	100 (92-107)	2.0	16 (15-17)	1556 (1444-1667)	5
2003-04	7420	653	88 (82-95)	1.8	20 (19-22)	1773 (1637-1909)	7
2005-06	6427	482	75 (68-82)	1.5	21 (19-23)	1591 (1449-1733)	10
2006-07	8389	755	90 (84-97)	1.8	21 (20-23)	1879 (1745-2013)	7
2007-08	7952	660	83 (77-89)	1.7	19 (18-21)	1613 (1490-1736)	8
2008-09	7690	769	100 (93-107)	2.0	23 (21-25)	2285 (2123-2446)	8
2009-10	7950	636	80 (73-86)	1.6	22 (20-24)	1722 (1588-1856)	8
2010-11	8022	746	93 (86-99)	1.9	21 (20-23)	1917 (1779-2054)	8
2011-12	7980	655	82 (76-88)	1.6	27 (25-29)	2222 (2052-2392)	9
2012-13	8100	588	73 (67-79)	1.5	25(23-27)	1784 (1645-1936)	11
2013-14	8160	739	91 (85-98)	1.8	26 (24-28)	2247 (2091-2415)	9
2014-15	8200	645	79 (73-85)	1.6	29 (27-31)	2369 (2193-2560)	9
2015-16	7162	447	62 (57-68)	1.2	29 (26-32)	1808 (1648-1984)	10
2016-17	8100	778	96 (90-103)	1.9	33 (31-35)	3150 (2936-3379)	11
2017-18	7800	717	92 (86-99)	1.8	37 (34-40)	3401 (3161-3659)	14
2018-19	8120	823	103 (96-110)	2.0	34 (32-36)	3479 (3249-3725)	14
2019-20	8040	709	88 (82-95)	1.8	38 (35-41)	3334(2706-4108)	11
2020-21	5900	467	79 (72-87)	1.6	31 (28-34)	2420 (1942-3017)	14
2021-22	8678	546	75 (69-81)	1.5	44 (41-48)	3276 (3003-3538)	20
2022-23	6943	529	76 (70 - 83)	1.5	38 (35-41)	2879 (2644-3135)	17
MEAN (2002-22)	*7767*	*661*	*86 (79-92)*	*1.7*	*27 (25-29)*	*2307 (2138-2490)*	*10*

Table S2: *Match injury incidence by severity grouping 2002-23.*

Season	Incidence/1000hrs (95%CI)				
	2-7 days	8-28 days	29-84 days	>84 days	All injuries
2002-03	57	30	9	3	100
2003-04	45	26	14	4	88
2005-06	29	29	13	3	75
2006-07	47	28	11	5	90
2007-08	39	30	10	4	83
2008-09	48	31	14	6	100
2009-10	36	29	10	4	80
2010-11	44	32	11	5	93
2011-12	34	28	13	7	82
2012-13	26	30	13	4	73
2013-14	38	33	14	6	91
2014-15	33	25	12	9	79
2015-16	23	24	11	5	62
2016-17	36	33	20	10	96
2017-18	28	32	19	12	92
2018-19	32	39	22	10	103
2019-20	31	30	15	11	88
2020-21	25	29	17	7	79
2021-22	17	29	15	13	75
2022-23	13	38	16	11	76
MEAN (2002-22)	*35 (34.3 - 36.2)*	*30 (29.0 - 30.8)*	*14 (13.3 - 14.5)*	*7 (6.5 - 7.3)*	*86 (84.4 - 87.4)*

Table S3: *Training injury incidence by severity grouping 2002-23.*

Season	Incidence/1000hrs (95%CI)				
	2-7 days	8-28 days	29-84 days	>84 days	All injuries
2002-03	1.13	1.29	0.42	0.18	3.0
2003-04	0.16	0.63	0.30	0.08	1.2
2005-06	1.04	0.70	0.35	0.10	2.2
2006-07	0.99	0.61	0.20	0.07	1.9
2007-08	1.26	1.08	0.38	0.07	2.8
2008-09	1.00	0.94	0.31	0.10	2.4
2009-10	1.09	0.89	0.34	0.07	2.4
2010-11	1.24	1.12	0.32	0.13	2.8
2011-12	0.87	0.97	0.30	0.14	2.3
2012-13	0.90	0.98	0.49	0.21	2.6
2013-14	0.94	1.25	0.52	0.18	2.9
2014-15	0.87	0.82	0.44	0.19	2.3
2015-16	0.47	0.86	0.43	0.14	1.9
2016-17	0.89	1.06	0.61	0.34	2.9
2017-18	1.00	0.87	0.66	0.35	2.9
2018-19	0.87	1.11	0.65	0.25	2.9
2019-20	0.73	1.22	0.79	0.29	3.0
2020-21	0.73	1.01	0.74	0.37	2.9
2021-22	0.59	1.07	0.73	0.34	2.7
2022-23	0.59	1.43	0.76	0.39	3.2
MEAN (2002-22)	*0.88 (0.84 - 0.92)*	*0.97 (0.93 - 1.01)*	*0.47 (0.44 - 0.50)*	*0.19 (0.17 - 0.21)*	*2.52 (2.46 - 2.58)*

Table S4: *Training injury incidence, severity and burden 2002-23.*

Season	Exposure	Total number of training injuries	Proportion of all injuries (%)	Incidence/1000 hrs	Injuries per club	Mean severity (days)	Median severity (days)	Burden/1000 hrs
2002-03	56786	159	18	2.8	13	21	7	59
2003-04	144667	217	25	1.5	18	22	8	33
2005-06	109730	203	30	1.9	17	19	9	36
2006-07	112973	209	22	1.9	17	17	8	32
2007-08	107797	318	33	3	27	17	9	51
2008-09	105306	258	25	2.5	22	22	9	55
2009-10	121633	298	32	2.5	25	20	9	50
2010-11	119298	340	31	2.9	28	21	9	61
2011-12	139956	323	33	2.5	27	22	10	55
2012-13	129019	335	36	2.6	28	29	12	75
2013-14	131900	414	36	2.9	35	25	12	73
2014-15	140263	325	34	2.3	27	28	12	64
2015-16	159398	304	40	1.9	25	30	17	57
2016-17	147983	429	36	2.9	36	33	14	96
2017-18	152533	438	38	2.9	37	37	14	106
2018-19	183280	528	39	2.9	44	32	15	93
2019-20	182049	551	44	3.0	46	35	18	105
2020-21	96125	274	37	2.9	23	36	19	104
2021-22	133773	376	37	2.8	29	36	18	110
2022-23	98609	312	38	3.2	28	39	19	125
MEAN (2002-22)	*130235*	*332*	*33*	*3*	*28*	*26*	*12*	*69*

Table S5: *Concussions sustained in matches and training.*

Season	MATCH CONCUSSIONS		TRAINING CONCUSSIONS		
	Number Concussions	% of match injuries	Number concussions	% of training injuries	% of all concussions
2002-03	42	6	3	2	7
2003-04	24	4	3	1	11
2005-06	20	4	2	1	9
2006-07	37	5	2	1	5
2007-08	37	6	1	0	3
2008-09	38	5	2	1	5
2009-10	31	5	8	3	21
2010-11	38	5	5	1	12
2011-12	41	6	4	1	9
2012-13	54	9	5	1	8
2013-14	86	12	9	2	10
2014-15	110	17	6	2	5
2015-16	113	25	18	6	14
2016-17	169	22	21	5	11
2017-18	140	20	32	7	19
2018-19	166	20	38	7	19
2019-20	159	22	34	6	18
2020-21	131	28	17	6	11
2021-22	158	24	43	11	21
2022-23	128	24	35	11	21
MEAN (2016-22)	*154*	*23*	*31*	*7*	*16*

Table S6: *Incidence, severity and burden of match concussions 2002-23.*

Season	Exposure	Total number of concussion	Incidence/1000 hrs	Injuries per club	Mean severity (days)	Median Severity (days)	Burden/1000 hrs
2002-03	7480	42	5.6	3	10	6	56
2003-04	7420	24	3.3	2	9	8	30
2005-06	6427	20	3.1	2	20	8	62
2006-07	8389	37	4.4	3	12	7	53
2007-08	7952	37	4.6	3	8	7	37
2008-09	7690	38	4.9	3	12	8	59
2009-10	7950	31	3.9	3	7	6	27
2010-11	8022	38	4.7	3	10	7	47
2011-12	7980	41	5.1	3	12	8	61
2012-13	8100	54	6.7	5	13	9	87
2013-14	8160	86	10.5	7	11	8	116
2014-15	8200	110	13.4	9	12	7	161
2015-16	7162	113	15.8	9	13	8	205
2016-17	8100	169	20.9	14	18	8	376
2017-18	7800	140	17.9	12	19	9	339
2018-19	8120	166	20.4	14	22	10	455
2019-20	8040	159	19.8	13	16	8	317
2020-21	5900	131	22.2	11	17	9	381
2021-22	8678	158	18.2	12	22	11	399
2022-23	6943	128	18.4	11	18	9	331
MEAN (2002-22)	*7767*	*84*	*11*	*7*	*14*	*8*	*172*

Table S7: *Incidence, severity and burden of tackle-related injuries to the ball carrier and tackler.*

	Ball Carrier			Tackler		
Season	Incidence/1000 hours	Mean severity	Burden/1000 hours	Incidence/1000 hours	Mean severity	Burden/1000 hours
2002-03	21	1	334	13	18	230
2003-04	17	17	281	13	21	274
2005-06	21	21	439	10	27	272
2006-07	22	16	347	15	16	234
2007-08	19	19	359	11	21	233
2008-09	22	34	731	16	24	370
2009-10	21	25	537	10	27	267
2010-11	18	18	334	14	28	399
2011-12	23	29	688	12	33	406
2012-13	19	24	465	14	26	361
2013-14	19	16	511	11	25	274
2014-15	15	40	580	12	34	406
2015-16	15	34	495	13	17	231
2016-17	23	37	845	22	27	590
2017-18	22	38	830	26	38	989
2018-19	28	32	874	25	34	855
2019-20	23	37	858	23	34	769
2020-21	17	32	546	21	26	537
2021-22	23	38	716	18	35	547
2022-23	18	32	757	20	42	692
MEAN (2002-22)	*20*	*27*	*567*	*16*	*27*	*434*

Table S8: *England match injury incidence, severity and burden 2002-23. *Asterisk indicate world cup year.*

Season	Total number of injuries	Incidence/1000 hours (95%CI)	Injuries per match	Mean severity	Burden/1000 hours (95%CI)	Days absence per match
2002-03	53	221 (169-289)	4.4	19	4264 (4010-4533)	85
2003-04	83	207 (167-256)	4.1	11	2371 (2225-2527)	47
2005-06	30	136 (95-195)	2.7	10	1391 (1243-1556)	28
2006-07	30	136 (95-195)	2.7	28	3836 (3586-4104)	77
2007-08	55	162 (119-205)	3.2	24	3876 (2852-4901)	78
2008-09	23	96 (57-135)	1.9	8	813 (480-1145)	16
2009-10	23	88 (52-125)	1.8	19	1712 (1012-2411)	34
2010-11	14	78 (37-119)	1.5	23	1789 (852-2726)	36
2011-12*	16	62 (31-92)	1.2	29	1754 (894-2613)	35
2012-13	31	111 (78-158)	2.2	24	2618 (1841-3722)	52
2013-14	19	86 (55-135)	1.7	20	1509 (963-2366)	34
2014-15	27	113 (78-165)	2.3	23	2604 (1786-3797)	52
2015-16*	39	163 (119-223)	3.3	13	2043(1492-2795)	41
2016-17	27	113 (78-165)	2.3	16	1774 (1217- 2587)	35
2017-18	23	105 (70-158)	2.1	30	3131 (2081-4712)	62
2018-19	23	89 (59-134)	1.8	19	1664 (1106-2504)	39
2019-20*	37	112 (84-160)	2.3	27	3156 (2630-3787)	63
2020-21	21	96 (62-146)	1.9	23	2195 (1796-2683)	44
2021-22	29	121 (84-174)	2.4	33	4008 (2785-3357)	80
2022-23	14	78 (67 - 90)	1.6	19	1448 (858-2445)	29
MEAN (2002-22)	*32*	*122 (119-125)*	*2.4*	*21*	*2485 (1757-3514)*	*49*

Table S9: *Proportion of Premiership and England training injuries by severity grouping 2002-23.*

	PREMIERSHIP TRAINING INJURIES				ENGLAND TRAINING INJURIES			
	2-7 days	8-28 days	29-84	>84	2-7 days	8-28 days	29-84	>84
2002-03	40	46	15	6	64	29	0	7
2003-04	11	42	20	5	51	40	9	0
2005-06	56	38	19	5	93	0	7	0
2006-07	54	33	11	4	53	27	20	0
2007-08	43	37	13	2	50	46	4	0
2008-09	41	38	13	4	53	40	0	7
2009-10	44	36	14	3	61	17	17	6
2010-11	44	39	11	5	86	14	0	0
2011-12	38	42	13	6	44	39	11	6
2012-13	35	38	19	8	17	50	17	17
2013-14	30	40	17	6	51	37	10	2
2014-15	38	35	19	8	63	19	13	6
2015-16	25	45	23	7	67	29	4	0
2016-17	31	37	21	12	36	9	45	9
2017-18	35	30	23	12	42	17	25	17
2018-19	30	39	23	9	42	26	21	11
2019-20	24	40	26	10	44	31	15	10
2020-21	26	35	26	13	29	41	12	18
2021-22	24	38	26	12	43	32	21	4
2022-23	19	45	24	12	55	9	27	9
MEAN (2002-22)	*35*	*38*	*19*	*7*	*52*	*29*	*13*	*6*

***Table S10**: Proportion of England match and training injuries by severity grouping 2002-23. *Asterisk indicate World Cup year.*

Season	Proportion (%)							
	Match				Training			
	2-7 days	8-28 days	29-84 days	>84 days	2-7 days	8-28 days	29-84 days	>84 days
2002-03	72	15	11	2	64	29	0	7
2003-04	61	30	7	1	51	40	9	0
2005-06	70	20	0	10	93	0	7	0
2006-07	34	47	6	13	53	27	20	0
2007-08	55	27	16	2	50	46	4	0
2008-09	48	30	17	4	53	40	0	7
2009-10	39	52	9	0	61	17	17	6
2010-11	29	43	21	7	86	14	0	0
2011-12*	63	6	19	13	44	39	11	6
2012-13	35	35	26	3	17	50	17	17
2013-14	58	21	21	0	51	37	10	2
2014-15	70	15	11	4	63	19	13	6
2015-16*	59	39	2	0	67	29	4	0
2016-17	70	15	11	4	36	9	45	9
2017-18	48	26	17	9	42	17	25	17
2018-19	61	9	30	0	42	26	21	11
2019-20*	38	41	11	11	44	31	15	10
2020-21	57	29	0	14	29	41	12	18
2021-22	48	10	28	14	43	32	21	4
2022-23	40	40	20	0	55	9	27	9
MEAN (2002-22)	*55*	*27*	*13*	*5*	*52*	*30*	*12*	*5*

***Table S11**: England training injury incidence, severity and burden 2002-23. *Asterisk indicate World Cup year.*

Season	Incidence/1000 hours (95%CI)	Mean severity	Burden/1000 hrs (95%CI)	Incidence/1000 hours (95%CI)	Mean severity	Burden/1000 hrs (95%CI)
2002-03	4.5 (2.6 - 8.0)	15	69 (60 - 80)	4.0 (1.0 - 15.9)	4	16 (8 - 32)
2003-04	7.6 (5.3 - 11.0)	12	89 (80 - 99)	6.3 (3.8 - 10.3)	13	79 (68 - 90)
2005-06	0.6 (0.1 - 4.0)	4	2 (1 - 6)	-	-	-
2006-07	9.8 (5.9 - 16.3)	15	149 (131 - 169)	-	-	-
2007-08	7.3 (4.5 - 10.1)	9	74 (46 - 103)	2.5 (0.5 - 4.6)	12	34 (7 - 61)
2008-09	6.5 (3.0 - 10.0)	20	135(62 - 209)	12.1 (4.2 - 20.0)	18	233 (81 - 385)
2009-10	5.3 (3.4 - 8.3)	8	46 (30 - 73)	4.0 (2.0 - 8.6)	6	26 (12 - 55)
2010-11	1.7 (0.8 - 3.5)	7	12 (6 - 26)	4.4 (1.8 - 10.5)	5	22 (9 - 53)
2011-12*	3.2 (1.4 - 5.1)	22	70 (31 - 110)	2.8 (0.4 - 5.3)	18	51 (6 - 95)
2012-13	3.7 (1.6 - 9.0)	20	58 (24 - 134)	1.1 (0.2 - 7.8)	9	10 (1 - 71)
2013-14	7.9 (4.7 - 13.3)	11	87 (52 - 147)	3.9 (1.3 - 12.1)	14	57 (18 - 177)
2014-15	3.3 (1.6 - 6.9)	25	85 (50 - 145)	2.3 (0.6 - 9.2)	2	3 (1 - 80)
2015-16*	15.7 (11.6 - 21.3)	9	135 (99 - 183)	7.3 (4.7 - 11.3)	8	55 (36 - 85)
2016-17	7.7 (4.1 - 14.3)	44	337 (181 - 626)	0.8 (0.1 - 5.7)	17	13 (2 - 93)
2017-18	12.2 (7.8 - 19.1)	47	579 (369 - 908)	1.8 (0.8 - 4.3)	32	57 (24 - 137)
2018-19	9.9 (6.0 - 16.4)	38	371 (224 - 615)	1.9 (0.7 - 5.1)	19	36 (14 - 96)
2019-20*	9.7 (6.9 - 13.6)	20	193 (103 - 362)	1.4 (0.6 - 3.4)	117	165 (21 - 858)
2020-21	10.2 (6.1 - 16.9)	27	275 (149 - 509)	2.6 (0.7 - 10.5)	47	123 (37 - 413)
2021-22	12.4 (8.5 - 18.1)	25	290 (199 - 423)	-	-	-
2022-23	9.4 (4.7 - 18.7)	47	438 (219 - 876)	1.2 (0.2 - 8.2)	2	2 (0 - 16)
MEAN (2002-22)	*7.3 (6.6 - 8.2)*	*20*	*161 (144 - 179)*	*3.7 (3.0 - 4.6)*	*21*	*70 (57 - 87)*