# Time to get our four priorities right: An 8 year prospective investigation of 1326 player-seasons to identify the frequency, nature, and burden of time-loss injuries in elite Gaelic football

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Managing injury risk requires an understanding of how and when athletes sustain certain injuries. Such information guides organisations in establishing evidence-based priorities and expectations for managing injury risk. In order to minimise the impact of sports injuries, attention should be directed towards injuries that occur frequently, induce substantial time-loss, and elevate future risk. Thus, the current study aimed to investigate the rate at which elite Gaelic football players sustain different time-loss injuries during match-play and training activities. Datasets (n=38) from elite Gaelic football teams (n=17) were received bythe National GAA Injury Surveillance Database from 2008 to 2016. A total of 1614 time-loss injuries were analysed. Each season teams sustained 24.0 (IQR 16.0 – 32.0) and 15.0 (IQR 10.0 – 19.0) match-play and training injuries, respectively. When exposure was standardised to 1000 hours, greater rates of injury (12.9, 95% CI 11.7 – 14.3) and time-loss days (13.4, 95% CI 12.3 – 14.9) were sustained in match-play than in training. Acute injury rates were 3.1-times (95% CI 2.7 – 3.4) greater than chronic/overuse injuries. Similarly, non-contact injury rates were 2.8-times (2.5 – 3.2) greater than contact injuries. A total of 71% of injuries in elite Gaelic football affected five lower limb sites. Four lower limb-related clinical entities accounted for 40% of all time-loss injuries (hamstring, 23%; ankle sprain, 7%; adductor-related, 6%; quadriceps strain, 5%). Thus, most risk management and rehabilitation strategies need to be centered around five lower limb sites – and just four clinical entities. Beyond these, it may be highly unlikely that reductions in injury susceptibility can be attributed to specific team interventions. Thus, compliance with national databases is necessary to monitor injury-related metrics and future endeavors to minimise injury risk.

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2 **seasons to identify the frequency, nature, and burden of time-loss injuries in elite Gaelic**

3 **football**

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18 **Abstract**

19 Managing injury risk requires an understanding of how, where, and when athletes sustain

20 certain injuries. Such information guides organisations in establishing evidence-based priorities

21 and expectations for managing injury risk. In order to minimise the impact of sports injuries,

22 attention should be directed towards injuries that occur frequently, induce substantial time-loss,

23 and elevate future risk. Thus, the current study aimed to investigate the rate at which elite

24 Gaelic football players sustain different time-loss injuries during match-play and training

25 activities. Datasets (n=38) from elite Gaelic football teams (n=17) were received by the National

26 GAA Injury Surveillance Database from 2008 to 2016. A total of 1606 time-loss injuries were

27 analysed. Each season teams sustained 24.0 (IQR 16.0 – 32.0) and 15.0 (IQR 10.0 – 19.0)

28 match-play and training injuries, respectively. When exposure was standardised to 1000 hours,

29 greater rates of injury (12.9, 95% CI 11.7 – 14.3) and time-loss days (13.4, 95% CI 12.3 – 14.9)

30 were sustained in match-play than in training. Acute injury rates were 3.1-times (95% CI 2.7 –

31 3.4) greater than chronic/overuse injuries. Similarly, non-contact injury rates were 2.8-times (2.5

32 – 3.2) greater than contact injuries. A total of 71% of injuries in elite Gaelic football affected five

33 lower limb sites. Four lower limb-related clinical entities accounted for 40% of all time-loss

34 injuries (hamstring, 23%; ankle sprain, 7%; adductor-related, 6%; quadriceps strain, 5%). Thus,

35 most risk management and rehabilitation strategies need to be centred around five lower limb

36 sites – and just four clinical entities. Beyond these, it may be highly unlikely that reductions in

37 injury susceptibility can be attributed to specific team interventions. Thus, compliance with

38 national databases is necessary to monitor injury-related metrics and future endeavours to

39 minimise injury risk.

41 **INTRODUCTION**

42 Gaelic football is a national sport of Ireland and has been governed by the Gaelic Athletic
43 Association (GAA) since 1884. Match-play is characterised by intermittent bouts of
44 multidirectional running as elite players reportedly cover 9200m, with 18% at a high-speed pace
45 (>17 km·h⁻¹) (11). This equates to a relative distance of 132 m·min⁻¹, however during periods of
46 match-play workloads can range between 190 to 230 m·min⁻¹ (12).

47 Managing injury risk is essential for maximising player availability and team performance (6).
48 The initial stage of this process involves establishing an injury profile for the given sport whilst
49 accounting for the dynamic interactions between players and the activities they undertake (1, 9).
50 Thus, managing injury risk requires an understanding of how (i.e. inciting mechanism) and when
51 (i.e. inciting activity) athletes sustain certain injuries (e.g. hamstring strain) (30). In order to
52 minimise the impact of injuries in sports, attention can then be directed towards injuries that
53 occur frequently, induce substantial time-loss, and elevate future risk. Such information guides
54 sports organisations in establishing evidence-based priorities by being awarenss of "what
55 problems need to be focused on" when creating future strategies (22).

56 For instance, a lot of research and media attention is devoted to anterior cruciate ligament
57 (ACL) injuries, partially due to risk of developing osteoarthritis early in life (24). However, ACL
58 injuries only account for 2% of all injuries in elite Gaelic football (26). Although these infrequent
59 injuries result in an average of 300 days from sport (26), 83% of elite athletes return to
60 performance levels comparable to their uninjured peers (25). Considering that 98% of injuries
61 will not involve the ACL, teams may not experience an ACL injury for 2 seasons, making it
62 impossible to evaluate the efficacy of specific risk management strategies at a single-team level.
63 Therefore, a need exists for injury surveillance data to support evaluations of team programs via
64 comparsions to epidemiological data on specific clinical entities. In this way, stakeholders may
65 move closer to consensus on what is an acceptable level of risk given awareness of evidence
66 that is relevant, valid and reliable (23).

67 Additionally, injury risk management can only be guided with detailed reporting on specific
68 clinical entities. This approach has been eluded to in relation to groin pain in athletes, however,
69 it has not yet been expanded to an injury surveillance dataset encompassing all musculoskeletal
70 injuries (21). Furthermore, the injury profile of specific activities has yet to be compared in

71  Gaelic football. Thus, the current study aims to establish the frequency, nature, and burden of

72  time-loss injuries sustained in elite male Gaelic football.

73  **METHODS**

74  Three fundamental variables in epidemiological investigations are the interactions between

75  person, place, and time (9). In a sporting context these can be adapted to provide an

76  understanding of how (e.g. mechanism) and when (e.g. training, match-play) athletes of a given

77  age sustain specific injuries (e.g. ankle sprain). In the current study we apply these criteria to

78  describe the pattern of injured body regions among elite Gaelic football players. Players are

79  stratified into one of four groups according to age (18-20 years, 21-24 years, 25-29 years, >30

80  years). The activity during which the injury was sustained (i.e. training or match-play) indicated

81  place. Timing of injury was classified as per seasonal cycle, that is, preseason (weeks 1-7),

82  competitive cycle one (i.e. National League) (weeks 8-16), mid-season (weeks 17-22), or

83  competitive cycle two (i.e. Provincial-National Championship) (weeks 23-34).

84  Between 2008 and 2016, thirty eight datasets were received from elite male Gaelic football

85  teams (n=17) enrolled in the National GAA Injury Surveillance Database. This equates to 1326

86  player-seasons. The involvement of each team ranged from 1-7 seasons. Following consent,

87  player anonymity was maintained and data protection assured in accordance with ethical

88  approval received from the Human Subjects Research Ethics Committee (LS-E-11-91) at

89  University College Dublin. The team medical doctor or Chartered Physiotherapist was

90  responsible for injury diagnosis (figures 1 and 2). Team medical staff were asked to confirm

91  whether all injury and exposure data had been provided before reports were generated. Non-

92  compliant teams were then excluded from analysis.

93  **Definitions**

94  Data were categorised as previously described (13). Injury was defined as "any injury that

95  prevents a player from taking a full part in all training and match play activities typically planned

96  for that day, where the injury has been there for a period greater than 24 hours from midnight at

97  the end of the day that the injury was sustained" (4). A clinical diagnosis was also selected from

98  a list or entered in free text form and later recoded to defined clinical entities or 'other' if

99  appropriate. Date of partial fitness was defined as "the date the player is able to participate in

100  training, but is not available for match selection". Date of full fitness was defined as "when the

101  player has been able to take a full part in training and is available for match selection".

102 **Data Analysis**

103 Data were analysed as previously described (15) using a statistical analysis software (IBM
104 SPSS Statistics 24.0). Continuous variables are reported as mean with 95% confidence
105 intervals (95% CI). Team rates are reported as median with interquartile ranges (IQR). Injury
106 incidences are reported per 1000 exposure hours. Injury burden (i.e. time-loss days per 1000
107 exposure hours) was calculated by multiplying mean time-loss by the injury incidence. Incidence
108 rate ratios (IRR) were calculated to compare injury risk across age groupings, injury types, and
109 match-play and training activities. IRRs were calculated by dividing a specific incidence metric
110 to that representing the injuries in all other sub-groups.

111 **RESULTS**

112 A total of 177854 exposure hours (17988 match-play; 159866 training) were reported. Time-loss
113 injuries (n=1606) were reported for match-play (n=896) and training activities (n=616). An
114 additional 94 time-loss injuries (5.9%, 95% CI 4.7 – 7.1) were associated with an insidious onset
115 as opposed to a specific activity.

116 **Team Rates**

117 The median number of injuries sustained per team each season was 42.0 (IQR 31.0 – 53.0).
118 Each season teams sustained 24.0 (IQR 16.0 – 32.0) and 15.0 (IQR 10.0 – 19.0) match-play
119 and training injuries, respectively. In total, 33.0 (IQR 22.0 – 45.0) injuries were sustained during
120 competitive cycles (Table 1).

121 **Injury Site**

122 Match-play was associated with the onset of 54.4% (95% CI 51.7 – 57.2) lower limb, 75.6%
123 (95% CI 69.0 – 82.1) upper limb, 41.9% (95% CI 32.4 – 51.4) trunk, and 62.2% (95% CI 48.9 –
124 75.6) head/neck injuries, respectively. Training was associated with the onset of 40.3% (95% CI
125 37.5 – 48.2) lower limb, 23.2% (95% CI 16.7 – 29.8) upper limb, 43.8% (95% CI 34.3 – 53.3)
126 trunk, and 33.3% (95% CI 20.0 – 48.9) head/neck injuries, respectively.

127 The five most common injuries were lower limb related and accounted for 70.9% (95% CI 62.4 –
128 78.9) of all time-loss injuries. However, the frequency of these common injuries differed
129 between match-play and training (table 2). Analysis of clinical entities revealed that four specific
130 injuries accounted for 40.9% (95% CI 35.6 – 46.1) of all injuries. These related to hamstring

131   strains (23.0%), ankle sprains (6.8%), adductor-related groin pain (5.9%), and quadriceps
132   strains (5.2%). Quartile ranges identified that aside from these four clinical entities, each season
133   more than one-in-four teams will not sustain injuries identified as being the most common (table
134   3). These four clinical entities also accounted for 38.9% (95% CI 29.3 – 52.7) of all player
135   unavailability (table 4).

136   **Match-Play Injuries**

137   Match-play injuries accounted for 55.8% (53.5 – 58.2) of all time-loss injuries. The lower limb
138   region was the most common site of match-play injury (77.8%, 95% CI 75.1 – 80.3) followed by
139   the upper limb (14.2%, 95% CI 12.1 – 16.5), trunk (4.9%, 95% CI 3.5 – 6.3), and head/neck
140   regions (3.1%, 95% CI 2.0 – 4.2).

141   Most match-play injuries were classified as new (78.0%, 95% CI 73.3 – 82.7) as opposed to
142   recurrent (22.0%, 95% CI 17.3 – 26.7), were associated with an acute onset (81.7%, 95% CI
143   79.2 – 84.2) rather than chronic or overuse (18.3%, 95% CI 15.8 – 20.8), and were incited by
144   non-contact mechanisms (73.2%, 59.8 – 65.3) as opposed to contact between players (36.8%,
145   95% CI 33.7 – 40.2).

146   Match-play was associated with the onset of 55.8% (95% CI 53.4 – 58.2) of all new injuries and
147   59.3% (95% CI 50.4 – 67.4) of all recurrent injuries. Furthermore, the proportions of all early (<8
148   weeks), late (2-12 months), and delayed (>12 months) recurrent injuries occurring in match-play
149   were 59.3% (95% CI 50.4 – 67.4), 44.6% (95% CI 36.7 – 52.5), and 44.6% (95% CI 32.5 –
150   55.4), respectively.

151   Analysis of time-loss data revealed that 25.1% (95% CI 21.7 – 28.5), 51.1% (95% CI 47.5 –
152   55.4), and 23.8% (95% CI 20.0 – 27.0) of match injuries resulted in mild, moderate, and severe
153   time-loss, respectively.

154   **Training Injuries**

155   Training injuries most commonly occurred in the lower limb region (83.6%, 95% CI 80.5 – 86.5)
156   followed by the upper limb (6.3%, 95% CI 4.2 – 8.1), trunk (7.5%, 95% CI 5.4 – 9.4), and
157   head/neck regions (2.4%, 95% CI 1.3 – 3.9).

158   Training was associated with the onset of 38.7% (36.3 – 41.2) of all new injuries and 35.6%
159   (95% CI 28.1 – 43.7) of all recurrent injuries. Furthermore, the proportions of early (<8 weeks),

160 late (2-12 months), and delayed (>12 months) recurrent injuries that occurred during training
161 were 35.6% (95% CI 28.1 – 43.7), 46.8% (95% CI 38.1 – 54.7), and 47.0% (95% CI 36.1 –
162 59.0), respectively.

163 Time-loss data revealed that 30.2% (95% CI 25.8 – 34.9), 50.4% (95% CI 45.7 – 55.8), and
164 19.4% (95% CI 15.5 – 23.3) of training injuries resulted in mild, moderate, and severe time-loss,
165 respectively.

**Injury Incidence Across Age-Groups**

167 Overall injury incidence was 9.2 (95% CI 8.8 – 9.6) per 1000 exposure hours. The incidence of
168 acute injuries was 3.1-times (95% CI 2.7 – 3.4) greater than chronic/overuse injuries. Similarly,
169 non-contact injuries occurred 2.8-times (95% CI 2.5 – 3.2) more frequently than injuries incited
170 via contact between players. Injury incidence increased across age-groups with IRR greatest for
171 players aged 30+ years (1.51, 95% CI 1.32 – 1.74) when compared to all other players
172 (supplementary table 1).

**Injury Incidence Between Match-Play and Training**

174 Match-play incidence (49.8, 95% CI 46.5 – 53.0) was 12.9-times (95% CI 11.7 – 14.3) higher
175 than training incidence (3.9, 95% CI 3.6 – 4.3). The incidence and IRR of non-contact, contact,
176 acute, and chronic/overuse injuries between match-play and training are outlined in table 5 and
177 table 6.

178 The incidence of mild, moderate, and severe injuries was also compared between match-play
179 and training (table 7) whilst accounting for injury region. The IRR between match-play and
180 training injuries grew as the classification of severity increased (table 6).

**Time-Loss and Player Unavailability**

182 Match-play injuries accounted for a greater proportion of all time-loss (51.8%, 95% CI 51.2 –
183 52.1) than training injuries (33.8%, 95% CI 3.4 – 36.6). Match-play and training injuries resulted
184 in a total of 576 (95% CI 345.6 – 851.2) and 342 (95% CI 193.0 – 516.8) time-loss days per
185 team each season, respectively. The mean time-loss for match-play and training injuries was
186 24.0 (95% CI 21.6 – 26.6) and 22.8 (95% CI 19.3 – 27.2) days, respectively. Although mean
187 time-loss overlaps considerably between these activities, injury burden (days lost per 1000
188 hours of exposure) was 13.4-times (95% CI 12.3 – 14.9) higher in match-play than in training

189    (table 8). Lower limb injuries accounted for the majority (79.3%, 95% CI 77.1 – 80.8) of player

190    unavailability. This trend was observed across all age-groups (supplementary Table 2).

191    **DISCUSSION**

192    The aim of the current study was to establish the rate at which elite Gaelic football players

193    sustain different time-loss injuries during match-play and training activities. Measures of central

194    tendency reveal that teams sustain 24 match-play and 15 training injuries per season. Injury

195    incidence per 1000 exposure hours is 12.9-times greater in match-play (49.8/1000 hours) than

196    in training (3.9/1000 hours). Essentially, teams are sustaining the vast majority of their injuries

197    during match-play despite only periodically playing competitive matches. The magnitude of

198    inequity between activity injury rates means that identification of factors influencing the onset of

199    match-play injuries should be prioritisied given their greater rate of occurrence.

200    **Emergence Of Match-Play Injury Patterns**

201    Despite contact injuries being 18.0-times more frequent in match-play than in training, 73% of

202    match-play injuries were classified as non-contact. Furthermore, most match-play injuries were

203    classifed as new (78%) and acute (82%) suggesting an adverse relationship between player's

204    capacities and imposed match-play demands. Thus, factors such as contact between players

205    and deficits from previous or ongoing conditions are not associated with the onset of most

206    match-play injuries. This prompts the question: why do acute, non-contact injuries occur more

207    frequently in match-play than in training? Although random events impact injury susceptibility, it

208    is unlikely that elite players become 13-times unluckier when playing match-play than playing

209    training.

210    A greater proportion of recurrent injuries (59%) occurred in match-play than in training (36%),

211    particularly during the immediate 8 weeks following return to sport (59% v 30%). Studies in elite

212    soccer players have observed decrements in lower limb strength following exposure to match-

213    play, particularly among previously injured players (18, 20). Although, elite Gaelic footballers

214    with previous hamstring injuries may have greater eccentric knee flexor strength on average

215    when compared to their uninjured peers, the likelihood of decrements following return to sport

216    was 51% with a 25% chance of between limb asymmetries exceeding 15% (29). The odds of

217    sustaining injury are also known to be greater among elite Gaelic football players with previous

218    injuries in comparison to their uninjured peers (15). Such findings may guide return to sport

219   protocols and tailoring of risk management strategies among players with recent previous
220   injuries as unique management strategies may be required for this sub-cohort.

**Paradox of Performance-Focused Teams Sustaining Frequent Match-Play Injuries**

222   Considering that training aims to maximise the chances of the team succeeding in match-play, a
223   high match-play injury rate, largely constituted by non-contact and acute injuries, cannot coexist
224   with interventions to maximise player availability. The high rate of injuries (20, IQR 14.0 – 29.0)
225   during the initial competitive cycle of the season suggests components of preseason
226   interventions offer little protection against early inseason exposures to injurious match-play
227   demands. Unavailabilty may impair the transition of early career players to senior squads by
228   reducing exposures to interventions to develop desired sport specific skills while promote
229   detraining during rehabilitation periods (7, 8, 17).

230   The rate of injuries not associated with contact or chronic/overuse injuries in match-play
231   suggests emergence of an injury pattern distinct to training. This suggests scope for screening
232   studies to detect players especially vulnerable to match-play demands as it is questionable that
233   a truly random series of factors are driving this increased rate. However, difficulties in identifying
234   athletes are at greater risk of sustaining injury, due to modifiable factors, has been challenging
235   to date (2). While it is clear that most injuries in elite Gaelic football are sustained during match-
236   play, investigations of injury risk factors typically occur in preseason and thus, not periods
237   associated with frequent match-play exposures. This leads to a reliance on surrogate and
238   cross-sectional measures of injury risk to assess capacity to tolerate match-play demands for a
239   prolonged period of time. These findings suggest complex dynamics between an athlete's work
240   capacity, tolerance of sport specific stress, and injury.

241   The workloads imposed on athletes in match-play and training have yet to be compared in elite
242   Gaelic football. However, during training camp sessions players have reportedly covered 5417 ±
243   425m, of which 924.4 ± 225m was at ≥17 km.hr or high-speed distance (10). This is 42% less
244   than the 9222 ± 1588m and 1596 ± 594m at ≥17 km.hr, reportedly covered in match-play (11).
245   Contextual factors such as seasonal cycle, opposition standard, tactical strategies, and match
246   outcome also impact these workloads (16). Despite being central to the activity during which
247   most injuries are sustained (i.e. match-play) these factors have yet to be considered by
248   screening tools.

**Interpretating Epidemiological Data to Guide Selection of Screening Tools**

250     Understanding the extent of the injury problem is the first stge of reducing injury risk (19). This is

251     the key to designing risk management strategies as it guides researchers and practitioners with

252     an understanding of how, when, and where certain athletes sustain certain injuries (30). Results

253     of the current study show that training and match-play have different injury profiles as marked

254     by their distinct common injury sites, inciting mechanisms, types, and severity patterns. Thus,

255     the first stage in designing screening protocols for common injuries needs to consider the exact

256     injury of focus, during which activity and mechanism it mostly occurs, as well as the seasonal

257     cycle in which this screening protocol will be of some, and potentially, no utility.

258     Identifying what proportion of the problem would likely be solved by targeting certain injuries

259     needs to be considered. Considering how scarse training injuries occur, relative to the amount

260     of time to accumulate 1000 hours, addressing common match-play injuries may be a more

261     efficient endeavor for managing injury risk. Similarly, the sensitivity and specificity of screening

262     tools may vary across the season given the nature of activities associated with specific cycles

263     (3). For instance, there is scope to reduce time-loss if lower limb (79%) or match-play (52%)

264     injuries were addressed. Consensus on the management of common injuries is needed, even

265     moreso if the approach of frequent targeted screening during periods associated with the onset

266     of common injuries fails. Furthermore, considering the scarcity at which some injuries occur

267     each season, clinicians will be unlikely to statistically attribute changes in susceptibility to rates

268     of specific clinical entities to team interventions. The case load of a clinician across multiple

269     seasons will not facilitate the exploration of efficace interventions for reducing and rehabilitating

270     even the most common injuries on an elite Gaelic football team. Thus, participation in large-

271     scale injury surveillance databases is necessary to pool sufficient quantities of quality data to

272     monitor injury trends (27, 28).

273     **Time for Minimum Standards for Managing Common Injuries**

274     Hamstring, knee, ankle, groin, and quadricep injuries were the most common injuries in both

275     activities. These results mean that 3 out of 4 injuries in Gaelic football will affect one of five

276     lower limb sites. One in ten match-play injuries also affected the shoulder. Thus, it is important

277     that practitioners have a comprehensive understanding of methods to manage the assessment,

278     diagnosis, rehabilitation, and risk management of these specific injuries. Establishing minimum

279     reporting standards for these common injuries would reduce potential difficulties in these

280     procresses (5). These actions likely have implications for human resources operations

281     surrounding the recruitment and development of medical and coaching staff to deliver

282     interventions specific to the sport. Epidemiological information as presented here can also guide
283     governing bodies in supporting medical resources at specific stages of the season associated
284     with a greater injury rate (e.g. competitive cycles) and higher treatment costs (14).

285     **Limitations**

286     A major limitation of the current study is the reliance on elite teams to voluntarily participate in
287     this injury surveillance project as it is not compulsory for teams to collect and share these data
288     with the governing body. Thus, it is currently impossible to establish longitudinal trends in the
289     rates of common injuries during match-play and training. The current study was also unable to
290     investigate the relationship between player characteristics, activity workloads, and risk of
291     sustaining a time-loss injury. This should be a priority for future research as completing
292     screening targeted at specific injuries more frequently may address limitations in traditional
293     approaches to injury screening while assisting in monitoring desired training responses.

294     **CONCLUSION AND METHODOLOGICAL CONSIDERATIONS**

295     Each season elite Gaelic football teams will sustain 24 match-play and 15 training time-loss
296     injuries. Regardless of activities, most injuries affect the lower limbs, are incited by non-contact
297     injury mechanisms, are associated with an acute onset, and result in 8-28 days absence from
298     sport. When time spent in activities is standardised to 1000 exposure hours, injuries occur 12.9-
299     time more frequently in match-play than in training. Similarly, time-loss days per 1000 hours are
300     13.4-times greater in match-play than in training. The utilisation of screening tools in future
301     studies should be targeted at seasonal cycles associated with the greatest injury risk to
302     maximise the potential to identify high risk players.

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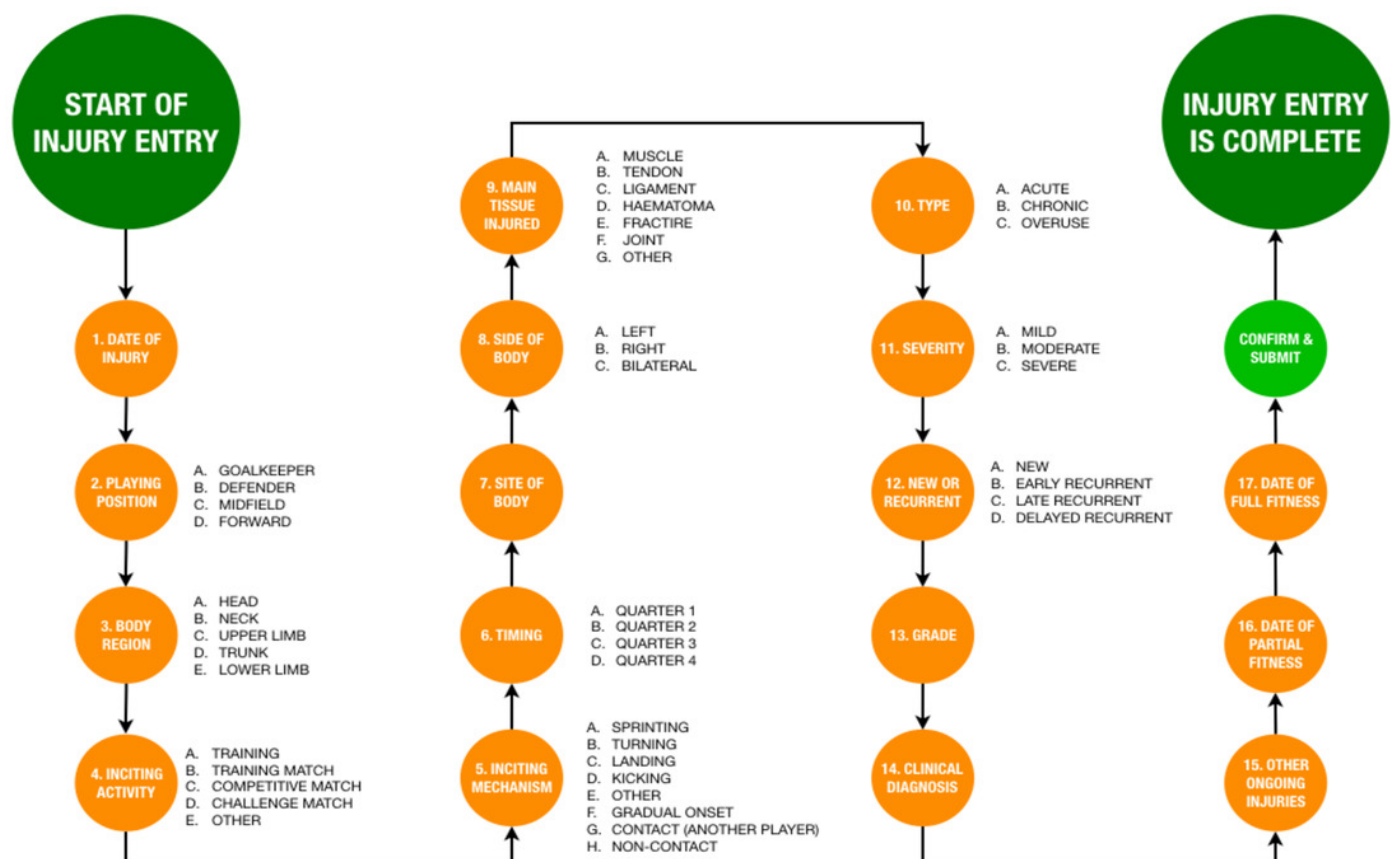
391

# Figure 1

Injury surveillance protocol

Outline of stages involved to recruit and obtain injury-related data from team physiotherapists and medical doctors for the GAA National Injury Surveillance Database in 2008 to 2016.

# Figure 2

Data entry pathway for registering a time-loss injury

Injury rates per team

Presented as median (interquartile range) per season.

1    **Table 1 – Median (IQR) Team Injury Rates Per Season**

|  | Median | Interquartile Range |
|---|---|---|
| **Team Rates** |  |  |
| Total Injuries | 42.0 | 31.0 - 53.0 |
| Match-Play Injuries | 24.0 | 16.0 - 32.0 |
| Training Injuries | 15.0 | 10.0 - 19.0 |
| **Region** |  |  |
| Lower Limb | 33.0 | 24.0 - 45.0 |
| Upper Limb | 4.0 | 3.0 - 7.0 |
| Trunk | 2.0 | 1.0 - 5.0 |
| Head/Neck | 1.0 | 1.0 - 2.0 |
| **Injury Type** |  |  |
| Contact | 11.0 | 7.0 - 16.0 |
| Non-Contact | 30.0 | 21.0 - 39.0 |
| Acute | 32.0 | 26.0 - 36.0 |
| Chronic/Overuse | 9.0 | 5.0 - 13.0 |
| New | 31.0 | 23.0 - 43.0 |
| Recurrent | 9.0 | 7.0 - 11.0 |
| **Severity** |  |  |
| Mild | 11.0 | 6.0 - 17.0 |
| Moderate | 19.0 | 11.0 - 26.0 |
| Severe | 10.0 | 6.0 - 12.0 |
| **Seasonal Cycle** |  |  |
| Preseason | 4.0 | 2.0 - 7.0 |
| Competitive Cycle 1 | 20.0 | 14.0 - 29.0 |
| Midseason | 7.0 | 4.0 - 9.0 |
| Competitive Cycle 2 | 13.0 | 8.0 - 16.0 |

Five most commonly injured sites

Presented with corresponding 95% confidence intervals.

1    **Table 2 – Five Most Common Injured Sites**

| | All injuries | Match-Play | Training |
|---|---|---|---|
| **1** | Hamstring, 23.9% (21.9 - 26.0) | Hamstring, 23.1% (20.2 - 26.0) | Hamstring , 27.6% (24.2 - 31.2) |
| **2** | Groin, 14.9% (13.0 - 16.7) | Knee, 12.7% (10.5 - 15.0) | Groin, 17.5% (14.8 - 20.6) |
| **3** | Ankle, 11.7% (10.1 - 13.3) | Ankle, 12.2% (9.9 - 14.2) | Ankle, 10.7% (8.4 - 13.3) |
| **4** | Knee, 11.1% (9.5 - 12.6) | Groin, 10.8% (8.9 - 12.9) | Quadriceps, 10.1% (7.8 - 12.5) |
| **5A** | Quadriceps, 9.3% (7.9 - 10.3) | Shoulder, 9.7% (7.9 - 11.7) | Knee, 8.6% (6.3 - 10.7) |
| **5B** | - | Quadriceps, 9.7% (7.7 - 11.6) | - |
| **Combined** | 70.9% (62.4 - 78.9) | 78.2% (65.1 - 91.4) | 74.5% (61.5 - 88.3) |

Most common clinical entities as per injury diagnosis

1    **Table 3 – Most common clinical entities as injury diagnosis**

| | Team Rate Per Season (Median, IQR) | Percentage of All Injuries | Prevalence | Incidence | Match-Play Incidence | Training Incidence | Likelihood Non-Contact Related | Likelihood Occuring in Match-Play | Likelihood Occuring in Training |
|---|---|---|---|---|---|---|---|---|---|
| **All Injuries** | 42 (31 - 53) | - | 69.8% (67.4 - 72.3) | 9.2 (8.8 - 9.6) | 50.5 (47.2 - 53.8) | 3.9 (3.6 - 4.3) | 72.9% (70.7 - 75.1) | 55.8% (53.4 - 58.2) | 38.7% (36.3 - 41.2) |
| Hamstring: Muscle/Tendon Strain | 9 (7 - 12) | 23.0% (21.0 - 24.9) | 19.7% (17.5 - 21.8) | 2.1 (1.9 - 2.3) | 11.0 (9.5 - 12.5) | 1.1 (0.9 - 1.2) | 98.1% (96.8 - 99.5) | 52.7% (48.1 - 57.7) | 45.2% (40.4 - 49.7) |
| Ankle: Sprain | 3 (1 - 4) | 6.8% (5.6 - 7.9) | 7.4% (6.0 - 8.8) | 0.6 (0.5 - 0.7) | 3.8 (2.9 - 4.7) | 0.2 (0.2 - 0.3) | 80.2% (72.1 - 87.4) | 62.2% (53.2 - 71.2) | 32.4% (23.4 - 40.5) |
| Groin: Adductor-Related | 2 (1 - 4) | 5.9% (4.8 - 6.9) | 6.0% (4.7 - 7.2) | 0.5 (0.4 - 0.7) | 2.5 (1.8 - 3.3) | 0.3 (0.2 - 0.4) | 94.8% (89.6 - 99.0) | 47.9% (37.9 - 57.9) | 46.9% (36.9 - 56.9) |
| Quadriceps: Muscle Strain | 2 (1 - 4) | 5.2% (4.2 - 6.4) | 5.8% (4.5 - 7.1) | 0.5 (0.4 - 0.6) | 2.0 (1.3 - 2.6) | 0.3 (0.2 - 0.4) | 98.8% (96.5 - 100) | 41.2% (30.6 - 50.6) | 58.8% (49.4 - 69.4) |
| Calf: Muscle/Tendon Strain | 1 (0 - 4) | 4.3% (3.4 - 5.3) | 4.5% (3.4 - 5.6) | 0.4 (0.3 - 0.5) | 2.0 (1.3 - 2.7) | 0.2 (0.1 - 0.3) | 94.4% (87.3 - 98.6) | 50.7% (38.0 - 62.0) | 47.9% (36.6 - 60.6) |
| Quadriceps: Bruising/Haematoma | 1 (0 - 3) | 3.9% (3.0 - 4.8) | 4.1% (3.1 - 5.2) | 0.4 (0.3 - 0.4) | 2.8 (2.1 - 3.6) | 0.1 (0.0 - 0.1) | 7.9% (1.6 - 15.9) | 81.0% (71.4 - 90.5) | 17.5% (7.9 - 27.0) |
| Groin: Hip-related | 1 (0 - 3) | 2.7% (2.0 - 3.5) | 2.9% (2.0 - 3.9) | 0.3 (0.2 - 0.3) | 0.9 (0.5 - 1.3) | 0.1 (0.1 - 0.2) | 68.2% (54.5 - 81.8) | 35.6% (21.6 - 49.5) | 46.7% (32.1 - 61.2) |
| Shoulder AC Joint Sprain | 1 (0 - 2) | 2.4% (1.7 - 3.1) | 2.9% (2.0 - 3.8) | 0.2 (0.2 - 0.3) | 1.8 (1.2 - 2.5) | 0.04 (0.0 - 0.1) | 15.0% (5.0 - 27.4) | 82.5% (70.0 - 92.5) | 15.0% (5.0 - 27.5) |
| Ankle: General | 1 (0 - 2) | 2.4% (1.7 - 3.1) | 2.7% (1.8 - 3.6) | 0.2 (0.2 - 0.3) | 1.1 (0.6 - 1.6) | 0.1 (0.1 - 0.1) | 76.9% (64.1 - 89.7) | 51.3% (33.3 - 66.7) | 41.0% (25.6 - 56.4) |
| Groin: Other | 1 (0 - 3) | 2.3% (1.6 - 3.1) | 2.6% (1.7 - 3.4) | 0.2 (0.2 - 0.3) | 0.7 (0.3 - 1.0) | 0.1 (0.1 - 0.2) | 89.5% (78.9 - 97.4) | 31.6% (16.8 - 46.4) | 47.4% (31.5 - 63.2) |
| Groin: Iliopsoas-Related | 1 (0 - 3) | 2.1% (1.5 - 2.9) | 2.5% (1.7 - 3.3) | 0.2 (0.1 - 0.3) | 0.8 (0.4 - 1.3) | 0.1 (0.1 - 0.2) | 88.6% (77.1 - 97.1) | 42.9% (26.5 - 59.3) | 48.6% (32.0 - 65.1) |
| Knee: Patellar Tendinopathy | 0 (0 - 1) | 2.1% (1.4 - 2.8) | 2.3% (1.5 - 3.1) | 0.2 (0.1 - 0.3) | 1.3 (0.8 - 1.8) | 0.03 (0.0 - 0.1) | 97.1% (91.2 - 100) | 67.6% (52.9 - 82.4) | 11.8% (2.9 - 23.5) |
| Shoulder: General | 0 (0 - 1) | 1.7% (1.2 - 2.3) | 2.1% (1.3 - 2.9) | 0.2 (0.1 - 0.2) | 1.0 (0.5 - 1.5) | 0.06 (0.0 - 0.1) | 25.0% (7.1 - 42.9) | 64.3% (46.4 - 82.1) | 35.7 (17.9 - 53.6) |
| Knee: MCL Sprain | 1 (0 - 2) | 1.6% (1.0 - 2.3) | 1.7% (1.0 - 2.4) | 0.2 (0.1 - 0.2) | 1.2 (0.7 - 1.7) | 0.03 (0.0 - 0.1) | 42.3% (23.1 - 61.5) | 80.8% (65.4 - 96.2) | 15.4% (3.8 - 30.8) |
| Knee: General | 0 (0 - 1) | 1.6% (1.0 - 2.2) | 2.0% (1.2 - 2.7) | 0.2 (0.1 - 0.2) | 0.6 (0.3 - 1.0) | 0.1 (0.0 - 0.1) | 61.5% (42.4 - 80.8) | 42.3% (23.1 - 61.5) | 53.8% (34.6 - 73.1) |
| Back: Disc Pathology | 0 (0 - 1) | 1.5% (1.0 - 2.1) | 1.7% (1.0 - 2.3) | 0.2 (0.1 - 0.2) | 0.4 (0.1 - 0.8) | 0.1 (0.0 - 0.1) | 96.0% (88.0 - 100) | 32.0% (16.0 - 52.0) | 44.0% (24.0 - 64.0) |
| Knee: Bruising/Haematoma | 0 (0 - 1) | 1.5% (0.9 - 2.2) | 2.5% (1.7 - 3.3) | 0.2 (0.1 - 0.3) | 1.3 (0.8 - 1.8) | 0.06 (0.0 - 0.1) | 37.1% (22.9 - 54.3) | 65.7% (48.6 - 82.8) | 25.7% (11.4 - 40.0) |

Consequences of the most common clinical entities

*Likelihood of recurrence statistic in row "All Injuries" refers to proportion of players sustaining a subsequent injury following a return to sport.

1 **Table 4 – Consequences of the most common clinical entities**

| | Mean Time-Loss | Injury Burden | Percentage of Unavailability | Likelihood of Recurrence | Match-Play Incidence |
|---|---|---|---|---|---|
| **All Injuries** | **25.9 (23.5 - 28.4)** | **238.3 (206.8 - 272.6)** | **-** | **71.8% (63.5 - 80.2)*** | **50.5 (47.2 - 53.8)** |
| Hamstring: Muscle/Tendon Strain | 25.2 (20.5 - 31.0) | 52.9 (39.0 - 71.3) | 22.2% (18.8 - 26.2) | 44.1% (38.0 - 50.1) | 11.0 (9.5 - 12.5) |
| Ankle: Sprain | 24.5 (18.1 - 32.9) | 14.7 (9.1 - 23.0) | 6.2% (4.4 - 8.4) | 13.3% (6.5 - 20.0) | 3.8 (2.9 - 4.7) |
| Groin: Adductor-Related | 25.3 (15.9 - 37.1) | 12.7 (6.4 - 26.0) | 5.3% (3.1 - 9.5) | 21.5% (12.5 - 30.6) | 2.5 (1.8 - 3.3) |
| Quadriceps: Muscle Strain | 24.7 (15.5 - 38.9) | 12.4 (6.2 - 23.3) | 5.2% (3.0 - 8.6) | 10.4% (3.6 - 17.2) | 2.0 (1.3 - 2.6) |
| Calf: Muscle/Tendon Strain | 29.2 (19.2 - 42.3) | 11.7 (5.8 - 21.2) | 4.9% (2.8 - 7.8) | 18.3% (8.5 - 28.1) | 2.0 (1.3 - 2.7) |
| Quadriceps: Bruising/Haematoma | 9.7 (7.8 - 11.9) | 3.9 (2.3 - 4.8) | 1.6% (1.1 - 1.7) | 14.5% (5.2 - 23.9) | 2.8 (2.1 - 3.6) |
| Groin: Hip-related | 32.1 (19.0 - 47.3) | 9.6 (3.8 - 14.2) | 4.0% (1.8 - 5.2) | 12.8% (2.3 - 23.3) | 0.9 (0.5 - 1.3) |
| Shoulder AC Joint Sprain | 34.2 (20.0 - 54.0) | 6.8 (4.0 - 16.2) | 2.9% (1.9 - 5.9) | 5.3% (1.8 - 12.4) | 1.8 ( 1.2 - 2.5) |
| Ankle: General | 26.8 (17.7 - 38.3) | 5.4 (3.5 - 11.5) | 2.2% (1.7 - 4.2) | 8.3% (0.7 - 17.4) | 1.1 (0.6 - 1.6) |
| Groin: Other | 18.1 (9.7 - 29.1) | 3.6 (1.9 - 8.7) | 1.5% (0.9 - 3.2) | 11.8% (0.9 - 22.6) | 0.7 (0.3 - 1.0) |
| Groin: Iliopsoas-Related | 13.3 (10.1 - 17.1) | 2.7 (1.0 - 5.1) | 1.1% (0.5 - 1.9) | 6.1% (2.1 - 14.2) | 0.8 (0.4 - 1.3) |
| Knee: Patellar Tendinopathy | 41.7 (22.7 - 64.3) | 8.3 (2.3 - 19.3) | 3.5% (1.1 - 7.1) | 20.0% (5.7 - 34.3) | 1.3 (0.8 - 1.8) |
| Shoulder: General | 15.8 (10.9 - 20.8) | 3.2 (1.1 - 4.2) | 1.3% (0.5 - 1.5) | None Registered | 1.0 (0.5 - 1.5) |
| Knee: MCL Sprain | 32.2 (22.0 - 43.4) | 6.4 (2.2 - 8.7) | 2.7% (1.1 - 3.2) | 13.0% (0.7 - 26.8) | 1.2 (0.7 - 1.7) |
| Knee: General | 19.5 (12.1 - 27.3) | 3.9 (1.2 - 5.5) | 1.6% (0.6 - 2.0) | None Registered | 0.6 (0.3 - 1.0) |
| Back: Disc Pathology | 41.9 (12.9 - 85.1) | 8.4 (1.3 - 17.0) | 3.5% (0.6 - 6.2) | 13.6% (0.7 - 28.0) | 0.4 (0.1 - 0.8) |
| Knee: Bruising/Haematoma | 18.8 (10.7 - 31.3) | 3.8 (1.1 - 6.3) | 1.6% (0.5 - 3.4) | 6.1% (2.1 - 14.2) | 1.3 (0.8 - 1.8) |

Frequency and nature of match-play and training injuries per 1000 hours

Incidence rate ratio (IRR).

1    **Table 5 – Frequency and Nature of Match-Play and Training Injuries**

| | Match-Play Injuries | | | | | | |
|---|---|---|---|---|---|---|---|
| | **Incidence** | **Non-Contact** | **Contact** | **NC : C IRR** | **Acute** | **Chronic/Overuse** | **A : C/O IRR** |
| **All Regions** | **49.8 (46.5 - 53.0)** | **29.1 (26.6 - 31.6)** | **21.0 (18.6 - 22.8)** | **1.41 (1.23 - 1.60)** | **41.9 (38.9 - 38.9)** | **7.8 (6.5 - 9.1)** | **5.35 (4.48 - 6.39)** |
| **Lower Limb** | 38.7 (35.8 - 41.6) | 25.5 (23.2 - 27.9) | 13.2 (11.5 - 14.9) | 1.94 (1.66 - 2.26) | 31.7 (29.1 - 34.3) | 7.0 (5.8 - 8.2) | 4.52 (3.74 - 5.48) |
| **Upper limb** | 7.1 (5.8 - 8.3) | 2.4 (1.7 - 3.1) | 4.7 (3.7 - 5.7) | 0.51 (0.3 - 0.74) | 6.6 (5.4 - 7.7) | 0.5 (0.2 - 0.8) | 13.11 (6.66 - 25.81) |
| **Trunk** | 2.5 (1.7 - 3.2) | 1.2 (0.7 - 1.7) | 1.3 (0.8 - 1.8) | 0.91 (0.51 - 1.65) | 2.1 (1.4 - 2.8) | 0.3 (0.1 - 0.6) | 6.33 (2.68 - 14.98) |
| **Head/Neck** | 1.6 (1.0 - 2.1) | - | 1.6 (1.0 - 2.1) | - | 1.6 (1.0 - 2.1) | - | - |
| | Training Injuries | | | | | | |
| | **Incidence** | **Non-Contact** | **Contact** | **NC : C IRR** | **Acute** | **Chronic/Overuse** | **A : C/O IRR** |
| **All Regions** | **3.9 (3.5 - 4.2)** | **2.7 (2.4 - 3.0)** | **1.2 (1.0 - 1.3)** | **2.34 (1.97 - 2.78)** | **2.9 (2.7 - 3.2)** | **0.9 (0.8 - 1.1)** | **3.24 (2.69 - 3.90)** |
| **Lower Limb** | 3.2 (2.9 - 3.5) | 2.4 (2.2 - 2.7) | 0.8 (0.7 - 0.9) | 3.02 (2.48 - 3.69) | 2.4 (2.2 - 2.7) | 0.8 (0.7 - 1.0) | 2.99 (2.45 - 3.65) |
| **Upper limb** | 0.2 (0.2 - 0.3) | 0.1 (0.0 - 0.1) | 0.2 (0.1 - 0.2) | 0.44 (0.23 - 0.88) | 0.2 (0.2 - 0.3) | 0.02 (0.00 - 0.04) | 12.00 (3.70 - 38.97) |
| **Trunk** | 0.3 (0.2 - 0.4) | 0.2 (0.1 - 0.2) | 0.1 (0.1 - 0.2) | 1.71 (0.94 - 3.10) | 0.2 (0.1 - 0.3) | 0.1 (0.0 - 0.1) | 2.54 (1.34 - 4.82) |
| **Head/Neck** | 0.1 (0.1 - 0.1) | 0.02 (0.00 - 0.04) | 0.1 (0.0 - 0.1) | 0.25 (0.07 - 0.89) | 0.1 (0.1 - 0.1) | - | - |

Injury severity

Incidence rate ratio (IRR).

**Table 6 – Incidence Rate Ratio Comparing Frequency of Match-Play to Training Injuries Per Type**

| | IRR | Non-Contact | Contact | Acute | Chronic/Overuse | Mild | Moderate | Severe |
|---|---|---|---|---|---|---|---|---|
| **All Regions** | **12.93 (11.69 - 14.32)** | 10.78 (9.50 - 12.24) | 17.97 (15.07 - 21.43) | 14.26 (12.72 - 15.98) | 8.64 (6.86 - 10.89) | **10.94 (9.00 - 13.29)** | **13.26 (11.48 - 15.31)** | **15.98 (12.78 - 19.99)** |
| **Lower Limb** | 12.01 (10.73 - 13.45) | 10.54 (9.22- 12.06) | 16.46 (13.28 - 20.39) | 13.12 (11.54 - 14.92) | 8.68 (6.79 - 11.09) | 10.50 (8.44 - 13.05) | 11.78 (1.07 - 13.79) | 14.90 (11.58 - 19.18) |
| **Upper limb** | 28.94 (20.22 - 41.42) | 31.85 (16.80 - 60.38) | 27.65 (17.93 - 42.65) | 29.13 (20.06 - 42.29) | 26.66 (7.22 - 98.46) | 33.01 (14.33 - 76.04) | 23.96 (14.85 - 38.65) | 61.22 (30.43 - 123.16) |
| **Trunk** | 8.50 (5.62 - 12.85) | 6.44 (3.67 - 11.28) | 12.02 (6.43 - 22.50) | 10.23 (6.42 - 16.31) | 4.10 (1.56 - 10.79) | 5.43 (2.57 - 11.50) | 19.39 (9.50 - 39.50) | 8.00 (3.25 - 19.68) |
| **Head/Neck** | 16.59 (8.86 - 31.05) | - | 20.74 (10.55 - 40.77) | 16.59 (8.86 - 31.05) | - | 12.22 (4.92 - 30.38) | 41.47 (11.92 - 144.31) | 11.85 (2.65 - 52.94) |

Time-loss per activity

Mild (1-7 days), moderate (8-28 days), severe (29+ days). Incidence reported per 1000
exposure hours.

1 **Table 7 – Injury Severity**

| | Mild | Moderate | Severe | Mild Incidence | Moderate Incidence | Severe Incidence |
|---|---|---|---|---|---|---|
| **All Injuries** | **27.0% (24.4 - 29.5)** | **49.8% (47.0 - 53.0)** | **23.2% (20.6 - 25.7)** | **2.5 (2.2 - 2.7)** | **4.5 (4.2 - 4.8)** | **2.1 (1.9 - 2.3)** |
| Lower limb | 26.6% (23.4 - 29.5) | 50.8% (47.4 - 54.2) | 22.6% (19.9 - 25.6) | 1.9 (1.7 - 2.1) | 3.7 (3.4 - 4.0) | 1.6 (1.5 - 1.8) |
| Upper Limb | 19.8% (12.5 - 28.1) | 51.0% (40.6 - 60.4) | 29.2% (19.8 - 38.5) | 0.1 (0.1 - 0.2) | 0.3 (0.2 - 0.4) | 0.2 (0.1 - 0.2) |
| Trunk | 35.8% (25.4 - 46.3) | 40.3% (28.3 - 52.2) | 23.9% (13.4 - 34.3) | 0.2 (0.2 - 0.3) | 0.2 (0.2 - 0.3) | 0.1 (0.1 - 0.2) |
| Head/Neck | 44.0% (24.0 - 64.0) | 40.0% (20.0 - 60.0) | 16.0% (4.0 - 32.0) | 0.1 (0.1 - 0.2) | 0.1 (0.1 - 0.2) | 0.1 (0.0 - 0.1) |
| **Training Injuries** | **30.2% (26.0 - 34.6)** | **50.4% (45.4 - 55.0)** | **19.4% (15.7 - 23.3)** | **1.1 (1.0 - 1.3)** | **1.9 (1.7 - 2.1)** | **0.7 (0.6 - 0.9)** |
| Lower limb | 28.9% (24.1 - 33.7) | 52.4% (46.5 - 57.5) | 18.7% (15.0 - 22.9) | 0.9 (0.8 - 1.1) | 1.7 (1.5 - 1.9) | 0.6 (0.5 - 0.7) |
| Upper Limb | 17.6% (0.0 - 35.3) | 58.8% (35.3 - 82.4) | 23.5% (5.9 - 41.2) | 0.04 (0.01 - 0.08) | 0.14 (0.09 - 0.20) | 0.06 (0.02 - 0.09) |
| Trunk | 46.4% (28.6 - 64.3) | 28.6% (10.7 - 46.4) | 25.0% (10.7 - 42.9) | 0.11 (0.06 - 0.16) | 0.07 (0.03 - 0.11) | 0.06 (0.02 - 0.10) |
| Head/Neck | 55.6% (22.2 - 88.9) | 22.2% (0.0 - 55.6%) | 22.2% (0.0 - 55.6%) | 0.05 (0.02 - 0.08) | 0.02 (0.00 - 0.04) | 0.02 (0.00 - 0.04) |
| **Match-Injuries** | **25.1% (21.7 - 28.7)** | **51.1% (47.0 - 55.2)** | **23.8% (20.3 - 27.0)** | **12.5 (10.8 - 14.1)** | **25.5 (23.1 - 27.8)** | **11.9 (10.3 - 13.5)** |
| Lower limb | 25.3% (21.2 - 29.2) | 51.5% (47.0 - 56.3) | 23.2% (19.3 - 26.8) | 9.8 (8.3 - 11.2) | 19.9 (17.8 - 22.0) | 9.0 (7.6 - 10.3) |
| Upper Limb | 20.5% (1.5 - 29.5) | 48.7% (37.2 - 60.3) | 30.8% (20.5 - 41.0) | 1.5 (0.9 - 2.0) | 3.5 (2.6 - 4.3) | 2.2 (1.5 - 2.9) |
| Trunk | 25.0% (10.7 - 42.9) | 53.6% (35.7 - 71.4) | 21.4% (7.1 - 35.7) | 0.6 (0.3 - 1.0) | 1.3 (0.8 - 1.9) | 0.5 (0.2 - 0.8) |
| Head/Neck | 37.5% (18.8 - 62.5) | 50.0% (25.0 - 75.0) | 12.5% (7.1 - 35.7) | 0.6 (0.3 - 1.0) | 0.8 (0.4 - 1.2) | 0.2 (0.0 - 0.4) |

Time-loss and injury burden per activity

Match-play (MP), training (TR), relative ratio (RR).

1    **Table 8 – Time-Loss Per Activity**

| | Mean Time-Loss Days | | | Percentage of All Time-Loss | | | |
|---|---|---|---|---|---|---|---|
| | **All Injuries** | **Match-Play** | **Training** | **All Injuries** | **Match-Play** | **Training** | **Injury Burden MP : TR RR** |
| **All Regions** | **25.7 (23.4 - 28.3)** | **24.0 (21.6 - 26.6)** | **22.8 (19.3 - 27.2)** | **-** | **51.8% (51.2 - 52.1)** | **39.5% (36.7 - 42.8)** | **13.44 (12.34 - 14.87)** |
| **Lower Limb** | 25.4 (22.8 - 28.5) | 23.5 (21.1 - 26.4) | 22.6 (18.9 - 27.2) | 79.1% (77.9 - 80.6) | 76.1% (76.0 - 77.2) | 83.0% (82.0 - 83.7) | 12.58 (11.54 - 13.78) |
| **Upper limb** | 28.8 (22.5 - 36.4) | 29.9 (22.3 - 38.3) | 23.7 (16.8 - 31.3) | 11.2% (9.6 - 12.8) | 17.7% (14.6 - 20.4) | 6.6% (5.5 - 7.3) | 44.79 (38.49 - 54.50) |
| **Trunk** | 28.9 (18.6 - 42.6) | 22.4 (13.3 - 35.8) | 27.0 (13.4 - 45.2) | 7.4% (5.2 - 9.9) | 4.6% (3.0 - 6.6) | 8.9% (5.2 - 12.4) | 6.94 (6.34 - 8.44) |
| **Head/Neck** | 13.3 (8.8 - 18.2) | 11.8 (7.8 - 17.4) | 16.0 (7.5 - 25.3) | 1.8% (1.3 - 2.2) | 1.5% (1.1 - 2.0) | 1.7% (0.9 - 2.3) | 11.80 (10.4 - 14.44) |