

# #BanTackling: Why we need to consider all of the options to improve player safety in school rugby

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## **1. Background and Context:**

1.1 In March 2016 the [Sport Collision Injury Collective](#) made a [call to government to ban tackling in school rugby](#), as a result of the high levels of risk associated with this aspect of the game. As a key part of that campaign, I have outlined some of the concerns I currently have with the structure, governance and development of the game, offering some potential solutions.

1.2 It is imperative that a clear foundation is set for this report to ensure clarity. In accordance with the [Children Act \(1989\)](#), 'the welfare of the child is paramount' in any decision making processes. This is reflected in both the training and [policies of the Rugby Football Union](#), which have been adopted by the England Rugby Football Schools Union for the purposes of safeguarding.

## **2. The tackle:**

2.1 The tackle is the aspect of the game attributed to the most injuries, and often attributed to the most severe injuries (second to the scrum – which has been addressed with law change).

## **3. ERFU and RFU governance and culture:**

3.1 Decision making processes are far removed from the grassroots level of the game, with many not being able to influence decisions made. This is represented across the game, and not just in the schools context. A youth participant at school is unlikely to know or understand how they can contribute to decisions, despite having a right to do so.

3.2 Medical experts have raised some legitimate concerns regarding the current structure and governance of schools rugby, which has sometimes been trivialised by ERFU/RFU members. This may impede an open culture, for people to raise concerns.

3.3 The [Age Grade Review](#) did not go far enough with changing the youth game, specifically at under 14 and above, often ignoring evidence to appease other stakeholders.

3.4 Suggestions of improvements to the game and its structures have often not been fully considered, usually pointing to a current product that doesn't address the needs of the game. Examples can be found in Appendix 1.

## **4. Injury monitoring, reporting and auditing:**

4.1 There has been no published research by the RFU on injury in school rugby since 2013, yet this was data collected from the 2006-2007 and 2007-2008 seasons. There is additional research being conducted by the University of Bath, yet this is still small-scale, unpublished and may have a sampling bias towards the independent sector.

4.2 Schools are not required to report injuries, with a lower standard for reporting of sport injuries to the Health and Safety Executive. As such, schools are not auditing their injuries to establish risk factors. Without auditing an understanding of the likelihood (incidence) and severity of an activity, risk assessments are based upon perception, rather than evidence.

4.3 Injury data from the RFU is frequently available on the [adult community game](#) and the [professional game](#), but not youth rugby in schools and clubs.

4.4 Injury data has been distributed by World Rugby recently in response to the call for the ban of the tackle in schools rugby in March 2016. [This injury data was both misleading and incorrect](#), for [which World Rugby have recognised](#).

## **5. Compulsion and the Rights of the Child:**

- 5.1 Initially, anecdotal evidence suggested that some schools were forcing children to participate in contact codes of rugby as part of the school physical education curriculum.
- 5.2 It is recognised that there is no formal mandate from the Department for Education to teach rugby union (or league) as part of the [NCPE \(National Curriculum for Physical Education\)](#). However, [there is a decrease in the activities available for GCSE practical assessments meaning contact codes of rugby may increase in the PE curriculum](#).
- 5.3 In a study of 116 schools, via the Good Schools Guide, 'Rugby was compulsory in 77% of schools, with nearly all playing contact rugby. Half of the respondents introduced contact to pupils after an introductory period playing tag rugby. Introduction of contact rugby varied in age from 8 until 13. In 12 schools, students were allowed to choose between tag and contact rugby. Only 11 schools (9%) required express parental consent for children's participation in contact rugby, while 7 (6%) required this only if a boy played against children from an older age band' ([Nyiri 2016](#)).
- 5.4 Under the [United Nations Convention on the Rights of the Child](#) (1989), ratified by the UK Govt in 1991, children have the right to participate in any decisions that may affect them, and for their voices to be given due weight. By not seeking their views, this is in direct conflict with their rights. This does include sport (article 31).

## **6. Consent:**

- 6.1 When consent is not obtained, the levels of risk have not been accepted by the participant. Therefore, when contact rugby is a compulsory activity, acceptable levels of risk must be lower than in environments whereby participation is voluntary (such as a club). Additionally, if a school is unable to contextually outline their incidence and severity of an activity, a risk assessment may be considered invalid.
- 6.2 There are two forms of consent, implied and informed. Implied consent is whereby somebody is assumed to give consent to an activity by engaging with it, notably this is never appropriate among children. Informed consent requires a full disclosure of the activity and risks before requiring a person (for children this would include a parent and guardian) to agree to participate. Again, for informed consent, accurate information on the associated risks must be offered. If [World Rugby are unable to report injury data accurately](#), and if the Rugby Football Union are not publicising their data, an informed decision cannot be obtained.

## **7. Concussion (Mild Traumatic Brain Injury):**

- 7.1 At present there is no mechanism for concussion prevention. The [HEADCASE programme](#) does not prevent concussion, but rather aids the management of already injured players.
- 7.2 In a recent [Swedish study](#), with a sample size of 1,143,470 people who had sustained a concussion before the age of 25 years, they found concussion led to 'elevated risks of impaired adult functioning across all outcome measures' (psychiatric disorders, low educational attainment, disability pensions and premature mortality).
- 7.3 [Chronic Traumatic Encephalopathy](#) has [been diagnosed in a rugby player](#). [Further research is underway, in partnership with the RFU, to look at Brain health in retired rugby players](#). Long-term neurological damage associated with rugby is not fully known.

## 8. Training and Education:

- 8.1 The current focus for the RFU has been upon educating the workforce in order to reduce injuries, with a focus on concussion through the online [HEADCASE module](#). The utility of education to reduce injuries has been previously criticised in scientific literature and it is [not considered an effective strategy](#).
- 8.2 Additionally, there is no requirement to have completed the HEADCASE course as a teacher ([not even for those participating in the Natwest Cup](#), although the [ERFSU/RFU 'would like you \[schools\] to commit to a four-step Concussion Education Code'](#)). Globally, safety training is often made compulsory for coaches, often with forced renewal. For example, [BokSmart requires biannual training](#).
- 8.3 In the coming months, [a new concussion consensus will be issued](#), meaning all previously completed HEADCASE courses may be outdated and invalid with the latest medical consensus.
- 8.4 There are also some content issues in the HEADCASE resources module, for example there is little mention of a gradual return to education, with the focus being only on play. For example, there is no mention of education in the [HEADCASE parental guidelines](#), which would be a suitable place to host such information on a gradual return to education. There is a small amount of information on concussion for schools, such as on the [Schools Section PDF](#), which reads 'It is reasonable for a student to miss a day or two of academic studies but extended absence is uncommon'. This is far short of a graduated return to play protocols (easily recognised by changing the word student to athlete and academic studies to playing/competition). Such advice is already being given elsewhere in the world, for example: [Return to Learn](#). Additionally, available on [Youtube](#), which is also posted on the [NHS inform website](#).
- 8.5 As part of this debate, training and education has often been considered the most appropriate remedy. If this position is truly believed by the RFU/ERFSU, regulations should reflect this position by making qualifications mandatory to coach, teach and officiate contact rugby (suggested level 2 as per the [UKCC guidance issues for community coaches to work within the school environment](#)). At present there is no mandatory training to coach, teach or officiate rugby.
- 8.6 The suggestion of making coaching qualifications a mandatory requirement was proposed to RFU staff. They highlighted that it may negatively affect injured players from poor non-qualified coaching practice (as they would not be covered under RFU insurance). No suggestion of a remedy was offered by the RFU staff members.
- 8.7 Specifically focused upon the tackle, Hendricks et al analysed video evidence of contact events (tackles, rucks and aerial collisions) during three separate years of a week-long under-18 rugby union tournament in South Africa between 2011 and 2013. They found no evidence of association between tackle proficiency and concussion. Indeed, the average proficiency score, indicating better technique, was higher for the tackles involving injury than for those which didn't. In the youth game, we do not understand the exact mechanisms for what types of tackle cause injuries, and specifically concussions. Schoolboy rugby players reported to have learned most of their tackle technique at the U19 age level. Additionally, [a recent BJSM systematic review found the concussion prevention benefits of technique training and practice time restrictions may be limited to a specific sub-set \(i.e., 11-15 year olds\) of the at-risk athletic population](#).

8.8 Current work is being undertaken by World Rugby to establish tackle injury mechanism in the elite game (International rugby). They have found some information on relationships between injury and tackle technique. This is both not published (as yet) or reflected in coach education. No work has yet happened on the school game.

8.9 Many school teachers have not received any training on rugby. Sport specific (including rugby) training is not part of initial teacher education (also called ITE, ITT, initial teacher training). In a [training audit of schools in Oxfordshire](#), 38.87% of PE teachers have achieved a coaching qualification for rugby. 27.55% of PE teachers have achieved an officiating qualification for rugby. 46.04% of PE teachers have attended a RFU CPD course for rugby. 31.7% of PE teachers have completed a concussion education module, this is 14.29% for state schools. In fact, according to the All Schools Autumn 2015 monitoring report, 31% of targeted All Schools had staff who had received no training.

8.10 If utilising education as a risk control for injury in sport, an evaluation of its effectiveness must also be conducted. There is poor evaluation of educational initiatives aimed at reducing injury in sport. Only two rugby programmes ([BokSmart](#) and [RugbySmart](#)) complete all four elements of [Van Mechelen's Model of Injury Prevention](#) (i.e., establishing the extent of the injury problem, establishing the aetiology and mechanisms of sports injury, introducing a preventative measure, assessing its effectiveness by repeating the process) to establish intervention effectiveness. Subsequently, [researchers have asserted: 'There is a dearth of evidence to support the effectiveness of such programmes'](#).

## 9. Benefits of Rugby (Research)

9.1 Currently the RFU/ERFSU strategy is to assert 'rugby is good for you'. Such assertions are not currently based upon evidence. There is no research that suggests that contact rugby has any unique properties that make it good for health nor wellbeing. At present, the only data cited is NHS data on physical activity and sport in general.

9.2 There is currently no published research on the benefits of rugby.

9.3 As part of the All Schools initiative, research was supposed to be conducted and published on the impact the project has had and the benefits of rugby, this is yet to be made publically available.

## 10. Recommendations:

- A. Specific mechanisms to be outlined for all stakeholders (includes youth players) to raise questions, ideas, concerns and contribute to the decision making processes, with sufficient due weight being given to their views and suggestions. Members must report back to members on the discussions and decisions.
- B. Foster a professional culture, based upon evidence rather than emotion. Members must be held to account for comments, actions and decisions.
- C. Minutes and documents of meetings must be open and freely available, clearly outlining decision making processes and decisions.

- D. All time-loss injuries, in accordance to the World Rugby consensus, to be reported to the RFU, by clubs and or schools. Concussions, following the GRTP, would be captured in this.
- E. The ERFUSU should clearly ask the RFU to make injury monitoring research within the youth and school game a priority.
- F. A clear position from the ERFUSU/RFU that cross-sport injury monitoring is essential in the school and youth sporting context. This includes a change to the definitions of reportable injuries to the HSE.
- G. Injury data to be published annually on the ERFUSU/RFU website.
- H. A new addition to RFU regulation 15 to be added, stating that children must not be forced or compelled to participate in contact codes of rugby union.
- I. Children and their parents/guardians should be given all available information on the possible risks for participating in contact rugby to allow them to make an informed decision on participation.
- J. A minimum requirement to be a volunteer in rugby union working with children (in all contexts) must be the completion of the online HEADCASE training module on a biannual basis.
- K. Clearer guidance on a Gradual Return to Learn (and work) must be added to the Online HEADCASE module and supporting documentation. A similar standard of detail to the GRTP must be adopted.
- L. Teachers and coaches must have completed training on tackling and contact to teach/coach the tackle and contact. This should be added to regulation 15.
- M. Targeted work with ITE/ITT providers of Physical Education to upskill their workforce at the start of their teaching career.
- N. An annual training needs analysis to be conducted to establish teachers current level of training and future needs.
- O. School based research should be conducted on the tackle to establish the causational mechanism for injury.

- P. Research must be conducted and published on the effectiveness of rugby specific training and initiatives (such as HEADCASE) on reducing injury.
- Q. Assertions from the RFU/ERFSU should be founded in evidence, with clear references for information sources.
- R. All reports and research related to the All Schools initiative must be shared with ERFSU colleagues, and published for public viewing. This can be via the RFU or other peer-reviewed outlets.

## APPENDIX 1: PREVIOUS RECOMMENDATIONS

### FACE-TO-FACE DELIVERY OF THE HEADCASE TRAINING

Evidence from a [Training Analysis of Oxfordshire Schools](#) found that the best way to ensure teachers have completed the HEADCASE training was via face-to-face delivery. In fact, over 50% of teachers who had completed the HEADCASE training in Oxfordshire (43 of 85) had been through two face-to-face delivered sessions at two schools. An email was sent to: Dave Fraser, Tom Mapp, Dusty Miller, Rachel Brown, Mark Saltmarsh, Mike England and Chris Sigsworth on the 2<sup>nd</sup> December 2015 outlining this data. One of those responded, 'Thanks for the message. Our view is that the online module is better because there is a test of learning to complete. Face to face workshops don't give this so we are encouraging school leaders to get their staff to take the module as well as going directly to teachers themselves'. I followed this up on the 3<sup>rd</sup> December commenting, 'completely agree on the test for learning. However, there needs to be a good uptake of the online modules for it to be effective in enhancing the care offered to potentially injured rugby players in schools (and possibly other rugby environments)'. No response was received.

### GRADUATE RETURN TO SCHOOL

On the 18<sup>th</sup> July 2015 an email was sent to a member of the RFU Education Development team and a trustee of the ERFSU, which read:

Hi \_\_\_\_\_ and \_\_\_\_\_,

So this popped up on my Twitter yesterday, which I found really interesting and I was wondering if we (The RFU) should be offering Graduate Return to School advice for concussion also? Just over half way into the video it suggests a GRTS process.

<http://www.nhsinform.co.uk/behind-the-headlines/special-reports/2015/06/new-guidance-for-managing-concussion-launched/>

<https://www.youtube.com/watch?t=12&v= 55YmbIG9YM>

Thoughts?

Adam

The response received was not to consider the suggestion, but to point to what has already been produced:

Hi Adam,

If you go to Headcase and follow the online module it is what the RFU's guidance is, and was the fundamental message in the Rugby Teacher Development Days.

<http://www.englandrugby.com/my-rugby/players/player-health/concussion-headcase/>

<http://www.englandrugby.com/my-rugby/players/player-health/concussion-headcase/coaches/>

<http://www.englandrugbyfiles.com/medical/concussion-awareness/coaches/>

All sports in England have signed up to the Sport England advice which is based around the RFUs Headcase.

## PLAYER PASSPORT AND GMS

On the 29<sup>th</sup> June 2016 a number of members of the three education unions (Schools, Colleges and Universities) met at Twickenham to discuss the new GMS system and educational portal. Many discussions ensued regarding overplaying, dual registration and injury monitoring. I suggested an online app that was a player's passport. Here, coaches, referees and players could register their teams for each game, using QR codes and this would allow referees or coaches to mark a player as concussed / injured in a game. When a player then went to play in another game in a different environment the moment they were added to the team sheet the player's profile would alert the coach/referee that the player was ineligible to participate. Although the GMS education portal was in its infancy, and widespread approval in the room (especially from colleagues at Cambridge and Oxford Universities), the suggestion was not even noted or minuted. Similar projects are already implemented in other sports and other areas of the globe.

## ITT TEACHING CONTENT CRITERIA

After discussions with ITT providers for PE, they asked if there were specific content criteria that would be appropriate to allow a newly trained physical education teacher to deliver both contact and non-contact codes or rugby. I emailed on the 18<sup>th</sup> February 2015 to suggest targeted work with ITT providers, which was supported by one trustee of the ERFUSU. Yet, this was not taken forward. The email reads:

Adam,

There is no single line of communication into ITT institutions so it's down to RDO's or others to target their local institutions.

We won't find [sic] this centrally, but I know of some CB's who are funding it through their PFR plans.

Regards,

## APPENDIX 2: INJURY DATA

**'PROponents of the sport claim there is little evidence of excess risk in school age players.... yet abundant anecdotal evidence suggests otherwise, and emerging work**



**SUGGESTS A HEAVIER BURDEN OF INJURY IN THE PEDIATRIC RUGBY POPULATION THAN WAS PREVIOUSLY SUGGESTED' [Michael Carter \[Clinical Lead: Consultant Paediatric Neurosurgeon\]](#).**

Rugby union, being a contact sport, has a high risk of injury in comparison to most other sporting activities. So much so, an article by the University of Bath in partnership with the Rugby Football Union, published in the British Medical Journal states, '[rugby union has a relatively high risk of injury compared with other team sports](#)'. The epidemiological data on youth or school rugby is significantly less well documented in comparison to the adult community game and the professional game. There are a number of research articles that can tell us the injury situation in the schools' game:

[RISUS Schools Project \(2016\)](#): The most recent research on rugby union injuries in the school context for the United Kingdom is the RISUS project. A study of 825 adolescent rugby players, across in 28 school first XV rugby squads with a mean age of 16.9 years. In Northern Ireland found: 'A total of n=426 injuries were reported across the playing season. Over 50% of injuries occurred in the tackle situation or during collisions (270/426), with few reported during set plays. Injury incidence is calculated at 29.06 injuries per 1000 match hours. There were no catastrophic injuries. A large percentage of injuries (208/424) resulted in absence from play for more than 28 days. Concussion carried the most significant time out from play (n=33; 15.9%), followed by dislocations of the shoulder (n=22; 10.6%), knee sprains (n=19, 9.1%), ankle sprains (n=14, 6.7%), hand/finger/thumb (n=11; 5.3%). 36.8% of participants in the study (304/825) suffered at least one injury during the playing season'.

[Match Injuries in English Youth Academy and Schools Rugby Union \(2013\)](#): The last published piece of work on injuries in the English school game was based upon the 2006-2007 and 2007-2008 seasons. The found, 'Match injury incidence was 47 per 1000 player-hours for the academy and 35 per 1000 player-hours for the school groups'. Similar to the RISUS study, 'The tackle event was the most common cause of match injury for both academy (51% of injuries) and school (57% of injuries) groups'.

[Rugby Union injuries in Scottish Schools \(2011\)](#): A feasibility study on injury monitoring was conducted in Scotland in the 2008-2009 season. 'Of 37 rugby injuries in the study, 11 occurred during training. Head and face were the most injured body part and sprain/ligament injury the most common injury. Twenty injuries required attendance at Accident [and] Emergency with one admission. The tackle was the commonest phase of play causing injury. In the 193 matches played, the injury incidence during the match play was 10.8 injuries per 1000 player hours'. Importantly, this study also included injuries from training as well as match play.

[Systematic review of injuries](#): 'A systematic review of rugby union and league injuries among players under the age of 21 years was carried out to calculate probabilities of match injury for a player over a season and a pooled estimate of match injury incidence where studies were sufficiently similar. The probability of a player being injured over a season ranged from 6% to 90% for rugby union and 68% to 96% for rugby league. The pooled injury incidence estimate for rugby union was 26.7/1000 player-hours for injuries irrespective of need for medical attention or time-loss and 10.3/1000 player-hours for injuries requiring at least 7 days absence from games; equivalent to a 28.4% and 12.1% risk of being injured over a season'.