

Implications of Tackle Height Alterations in Rugby Union

Introduction:

An interesting crossroad we find ourselves entering with regards the long-term planning of the global game. Continuous efforts are being entertained to ensure that the safety of all players, grass roots to the professional game, are at the fore front of law changes. Coupled in alongside this is the underlying concerns of head injuries and the long-term negative effects of repeat micro and macro knocks within training and game day playing circles.

Lawsuits, media coverage along with player and parent fear have created a fear around the long-term effects of playing this high impact sport.

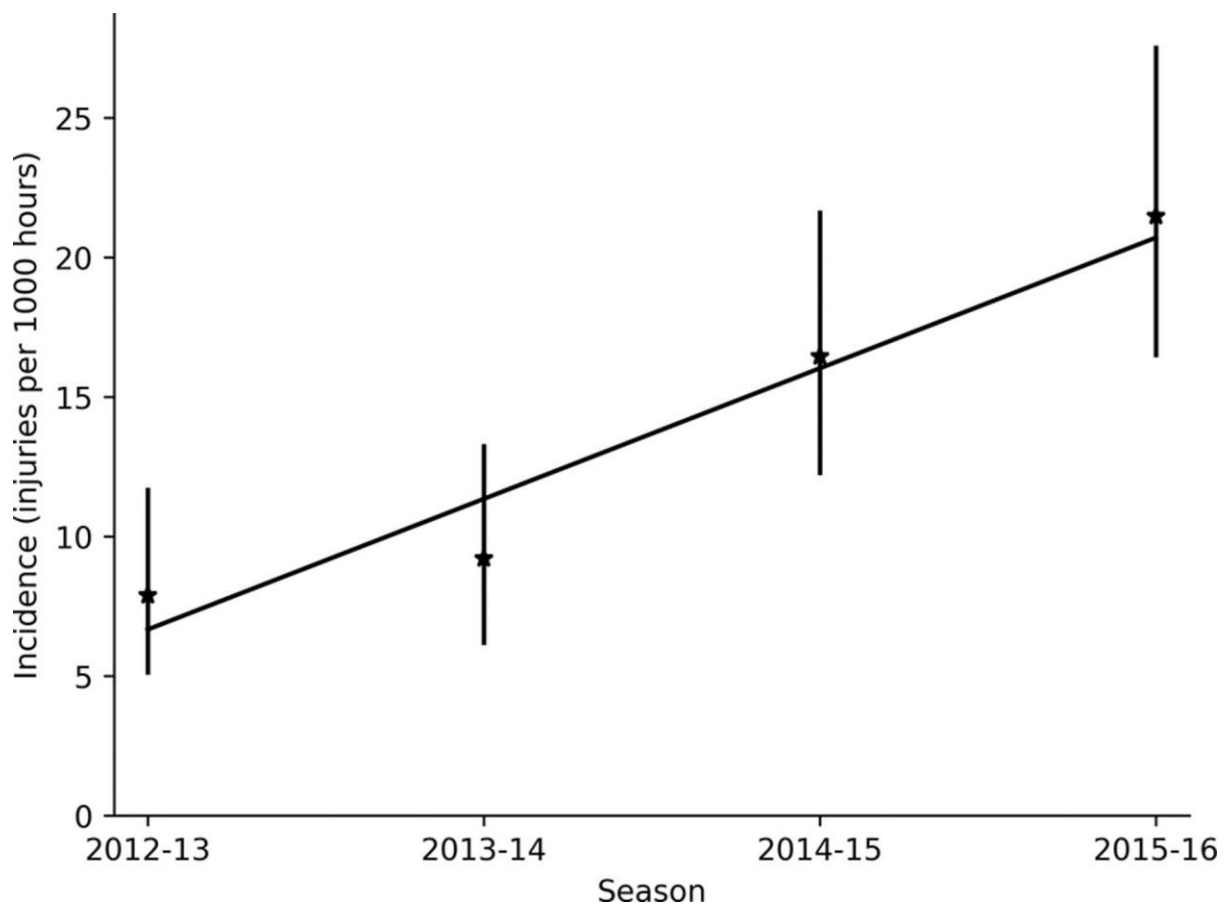
The initial concern is the loss of the core values and principles of play within the game if the tackle height restrictions are too extreme. Failure to concede there needs action and address the injury status will inevitably lead to the increasing pressures on the game and its international survival.

This essay is aimed at assessing why the changes have been about (injury reduction / safety of players) and the implications for coaches with their introduction. Is the cure going to be worse than the concern and ideally provide simple management plans for the impending law changes.

Why are we here?

Rugby Union is a sport played globally by an estimated 8.5 million people and regularly played across 121 countries. (World Rugby stats as of end of 2022)

A study, amongst many that have been completed, has shown that concussion rates have greatly improved over the 4-year analysis period 2012-2016. (Rafferty et al 2023). With this core data the leading bodies within the game have ascertained that a key factor in concussion reduction is to attempt to reduce direct head impacts, hence drop or lower the tackle height.



The study also goes on to explain in detail that the prevalence or potential for concussion is highly increased when a player is exposed to more than twenty-five games within a season. This is another angle that looked at more closely in the coming weeks.

Concussion Facts:

- The 2020-21 season had the highest incidence of concussion since records started in 2002 with 22.2 concussions per 1,000 hours of playing time. In total there were 131 concussions sustained in matches. (G. Meagher, 2022).
- Concussion in both Rugby Codes makes up 9.8% of all injuries requiring hospitalisation. (Pengilly et al 2021)
- Medical figures released by the Rugby Football Union (RFU) in 2020 revealed that 20% of professional rugby union players in England suffered concussion during the 2018–19 season, an increase from 16% recorded during the 2017–18 season. (Drake Foundation, 2020)

Contributing factors to increase in Concussion numbers:

- Less time spent on improving technique (tackle - falling – head positioning)
- Improved medical training on game day to increase awareness.
- Reluctance to remove players or rest from following fixtures.
- Introduction of supportive testing (Base line testing / eye guide / SCAT / mouth guards / various force monitors) leading to more diagnosis
- Low to minimal recordings or test cases completed.
- Increase in physical size of players (better gym awareness – training programs)
- Increase in number of games played by individuals.
- Poor understanding of long-term effects
- More attention and diagnosis leading to higher rates.

Interventions:

With the game and others like it (American Football – Ice Hockey – Rugby League – Aussie Rules) under increased scrutiny, Rugby Union has taken a lead with potential interventions.

Tackle height restriction is the focus point taken on by the World Rugby Body and then prescribed to each individual national body. The individual national body has still the final say on its implication and to what level, grass roots – community – club game.

Core Tackle Height Change:

- Tackles must be below the low part of the carrier's sternum.
- Second tackler must also remain under sternum unless directly ripping the ball out – thus not using the shoulder.
- Emphasis is also placed on the ball carrier to not dip late and thus enabling the tackler to site and execute the tackle as prescribed.

The above will not be enforced around pick and drive scenarios where force / top speed is deemed to be low.

These amendments to the current laws and still working within the previous framework on tackle in the air etc are attempting to lower concussion and all forms of injury risk.

Simply put, if you increase the distance and space between the required tackle area and the forbidden zone (Head) then mis timed or calculated attempts should remain within the required safe arena.

It is estimated that the previous tackle restrictions allowed for approximately 7cm of leeway from a tackle being mis placed and head impact occurring. Now it is hoped that a huge increase to 30cm of error will in turn cause far less direct blows to the head and reduce injury risk. (Rugby World Magazine 2023).

Implementation:

The concern for people directly within the game are at times not considered. The adaptation of the new laws and restrictions can take vast amounts of retraining to break the habit formation. Directives from the main world bodies often do not include best and safe practice advise to players and coaches

alike. It is essential that all parties are across the variations and what effects it may have on individuals within their specific teams.

One of the interesting factors that has been raised within this discussion, is the fact that ball carriers can and will be held responsible for potential head clashes. Late dipping actions which change the height of the new zone (lower sternum) will affect the tacklers ability to seek out this target area. The carrier can be claimed to be at fault here. The concern that ties in with this lies where evasive techniques such as side stepping and swerving are extremely commonly aligned with dips of body height. We certainly do not want these to be eradicated within the attacking arsenal of any player.

This is something I am in favour of but will have a huge knock-on effect to coaching practices. For many years players have been taught to drop their body height into a tackle situation to:

- Become more powerful,
- Harder to knock over with lowering the centre of gravity,
- Less of an upright target (choke tackle potential).
- Protection as you will hit the ground at a lower height,
- Protect the ball with more body area in contact,

Another and potentially more pressing issue arises where video analysis or T.M.O footage is not available (98% of all fixtures played on a weekend). We are asking the officials of this already complicated game to make split second decisions on increasing dynamics. Did the player dip too late? Was the tackler at a suitable height to the individual? (Variations in body height of players within the game are vast). Was there sufficient speed involved? Where was the initial contact point? What are the mitigating factors?

A lot to think about for a part time referee!!

What Can we do?

As discussed, any change is usually met with concern and challenge points. The initiatives being implemented are firmly for the best interest of the game and its future. The real work starts when the implication begins during the coming seasons to retrain and upskill athletes.



Fig 1.

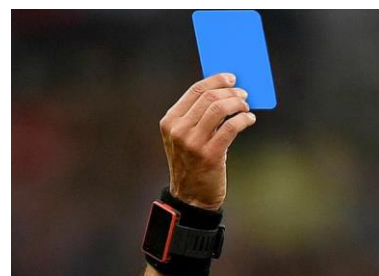


Fig 2.

Above (Fig 1.) we can see an initiative to clearly outline the required line at which tackles should remain under, displayed on a playing jersey. These forms of visual cues can only help both the player and officials within a high impact situation.

Second picture (Fig 2.) _is more common in a game, where an official can issue a Blue Card if they are unhappy about a player on the field in a medial sense.

Key fundamental adaptations required:

- Continued work within the tackle technique of all age groups with a primary focus on the younger cohort. Habit re-wiring will take time within any group of players.
- Improve knowledge around the ball carrier and his obligation in the safety of both players concerned.
- Improved technical focuses around positioning of head and how to fall properly at all key junctions.
- Further use of the Blue Card system where officials can intervene and have a player removed from the game if they see an incident.
- Continued focus on the game day First Aid and support services in recognition – removal of players with suspected head injuries.
- Emphasis on the “Gradual Return to Play” model, where players must conduct levels of testing post-concussion prior to returning. Developments and understanding in this space are crucial in the hope of non-re-occurrence.
- Decrease in full contact times at training. Too often training sessions and indeed the staff conducting the session prioritise ruck and contact drills to highly.
- Improved messaging around head injury concerns and accurate information provided to all key stake holders.
- Further research into long term affects of head injuries.
- Improvement in diagnostic tools - Eye Guide / Smart Mouth Guard / SCAT 3 test development

Conclusion:

It is in the best interest of the playing – coaching – supporting bodies to incorporate the incoming changes and embrace their long-term advantages to the safety of the game.

As the stigma surrounding head injuries and concussion continues to impact player numbers within all junctions of the game, a proactive approach is necessary.

Law variations will adapt and change, and, on the hole, this current initiative is in the interest of all parties.

The only major concern is the officiating of such incidents in the amateur game and the potential increase in high sanctions) red cards – game bans) that may initially arise. This in turn can lead to increased frustrations and the fear that the cure is worse than the issue.

References:

James Rafferty; Craig Ranson; Giles Oatley; Mohamed Mostafa Prabhat Mathema.
Tom Crick; Isabel S Moore

On average, a professional rugby union player is more likely than not to sustain a concussion after 25 matches.

(G. Meagher, 2022) **The Guardian** *Concussion rates in elite rugby hit highest levels since records began.*

A. Pengilly, C. Butt, R. Lama, M Stehle (2021) – **Sydney Morning Herald** – *Brain injuries have overtaken a broken nose or fractured jaw and are most common injury requiring hospitalisation in Rugby Union and League.*

Rugby Concussions: <https://www.drakefoundation.org/rugby-concussions/>

(Dan Cottrell 2023) Rugby World Magazine July edition -

What is the new tackle Height law in community rugby?