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This is the authors’ accepted manuscript that will published in its final definitive form by BMJ, 2017.

DOI link to article:


Date deposited:

28/09/2017
Tackle and scrum should be banned in school rugby

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Most injuries in youth rugby are due to the collision elements of the game, mainly the tackle. In March 2016, scientists and doctors in the Sport Collision Injury Collective (SCIC) called for the tackle and other forms of harmful contact to be removed from school rugby. The data in support of the call to remove the tackle and other forms of harmful contact in school rugby is compelling. We call on CMOs to act on the accumulating evidence and advise the UK government to put the interests of the child before the interests of corporate professional rugby unions and remove the tackle and other forms of harmful contact from the school game.

Rugby union and rugby league are the most commonly played collision sports in the physical education curriculum of schools in England. Collision sports where “athletes purposely hit or collide with each other or with inanimate objects (including the ground) with great force” include rugby, ice-hockey and American football.

The few studies which compare youth injury rates between sports show higher rates of injury for collision sports than for non-collision contact sports. A meta-analysis by Pfister et al found rugby, ice-hockey and American football had the highest concussion rates in children, 4.18, 1.20 and 0.53 concussions per 1000 athlete exposures respectively.

A survey carried out by the Australian Sports Medicine Federation across all age groups taking participation into account found rugby league, rugby union and Australian rules football had the highest rates of injury. A New Zealand study also across all age groups combining injury insurance claims data with exposure data from a range of surveys found playing rugby (one game every three weeks) was 460 to 530 times more dangerous than cycling (a half hour trip three times a week).

Furthermore a New Zealand study using instrumented ear patches to measure head impact acceleration found that under nine year olds playing rugby union with tackling experienced head impacts of a similar magnitude to American high school and collegiate football players despite the rugby players being younger, lighter and slower. Other studies show, rugby related injury emergency department attendances in the US are on the rise in particular head and face injuries which make up more than a third of injuries; girls take three or four times longer to recover from concussion than boys; a history of concussion is associated with a lowering of a person’s life chances across a range of social and educational measures including receipt of disability pension, psychiatric inpatient admissions or outpatient visits, premature mortality, low educational achievement and receipt of state welfare payments (p<0.05 for all); concussion is associated with an increase in violent behaviour and violent injury in adolescents the year following their concussion with children exhibiting violent behaviour in year nine 2.34 (95% confidence interval 1.07 to 5.16, p<0.05) times more likely to have had a concussion in year eight than non-violent children and children who had received a violent injury in year nine, 2.96 (95% CI 1.33 to 6.58, p<0.01) times more likely to have had a concussion in year eight than non-injured children; and head injury is associated with an increased risk of any dementia, relative risk (RR) = 1.63 (95% CI 1.34 to 1.99) and Alzheimer’s disease, RR = 1.51 (95% CI 1.26 to 1.80) adding to existing evidence that head injury may lead to neurodegenerative diseases.
Rule changes in collision sports can make a difference. Canada imposed a ban on body-checking in Pee Wee (under 13 years) ice-hockey, where a player deliberately makes contact with an opposing player to separate them from the ice-puck; a subsequent systematic review and meta-analysis found an unadjusted 67% reduction, incidence rate ratio 0.33 (95% CI 0.25, 0.45), in concussion risk. The evidence for other strategies to reduce concussion risk in sport including the wearing of protective equipment such as mouthguards is weak. The introduction of player education programmes in New Zealand and South African rugby was associated with a reduction in catastrophic injuries although not in other injuries including concussion. In the UK, teacher training in the skills of rugby are lacking as is concussion awareness training.

In July 2016 the four UK chief medical officers (CMOs) rejected the call for a ban on tackling in youth rugby citing a report they had commissioned from the Physical Activity Expert Group (PAEG) chaired by Professor Charlie Foster of University of Oxford and a paper authored by two World Rugby employees which claimed rugby was no more injury prone than other sports. The PAEG report (unlike World Rugby’s paper) stated that rugby has a higher incidence of injury than other sports but did not consider the Rights of the Child.

It is well recognised that children are vulnerable and require specific measures to control the unique risks associated with this group. The call for a cautionary approach and the removal of collision from school rugby and to end compulsion in the school game is likely to reduce and mitigate the risk of injury in school children. Under the United Nations Convention on the Rights of the Child (Article 19) governments have a duty to protect children from risks of injury and to ensure the safety of children, which is why we are calling on CMOs to act now.


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