

# DON'T BE A HEADCASE STOP! CHECK FOR CONCUSSION

HEADACHE EMOTIONAL APPEARANCE DROWSINESS CONFUSION AGITATED SEIZURE EARS AND EYES

## Don't be a HEADCASE – Essential Guide

### What is concussion?

Concussion is a brain injury resulting from a blow to the head or body which results in forces being transmitted to the brain. This typically presents as a rapid onset of short-lived impairment of brain function that resolves spontaneously.

This impairment results from disruption to the body's processes rather than a structural injury, and no abnormality is seen on standard hospital scans. A range of signs and symptoms are typically seen, affecting the player's thinking, memory, mood, behaviour, level of consciousness, and various physical effects. Clear loss of consciousness occurs in less than 10% of cases.

Recovery typically follows a sequential course over a period of days or weeks, although in some cases symptoms may be prolonged.

A more detailed definition and description can be found in the 5<sup>th</sup> Concussion in Sport Consensus Paper (<http://bjsm.bmj.com/content/early/2017/04/26/bjsports-2017-097699>).

### Concussion and the RFU

The RFU recognises that concussion is an important player welfare issue in rugby, and takes its responsibilities very seriously. The RFU has a comprehensive risk management strategy which covers the key priorities of:

- 🌀 Education & Awareness,
- 🌀 Prevention,
- 🌀 Management,
- 🌀 Research,
- 🌀 Communication.

The strategy is managed and reviewed by the RFU Concussion Risk Management Group, supported by an independent concussion expert panel. This panel provides advice on concussion policy and monitor emerging research.

### RFU Don't be a Headcase Concussion Awareness and Education Programme

The Don't be a Headcase programme is recognised as the leading concussion awareness and education resource in UK. It was launched in January 2013, and replaced the RFU's previous awareness campaign; "Use Your Head" which had been running since 2007.



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## RFU Regulations

RFU Regulations 9 and 15 and their associated guidance cover concussion:

<http://www.englandrugby.com/governance/regulations/>

## World Rugby Concussion Policies and Education

Laws: <http://laws.worldrugby.org>

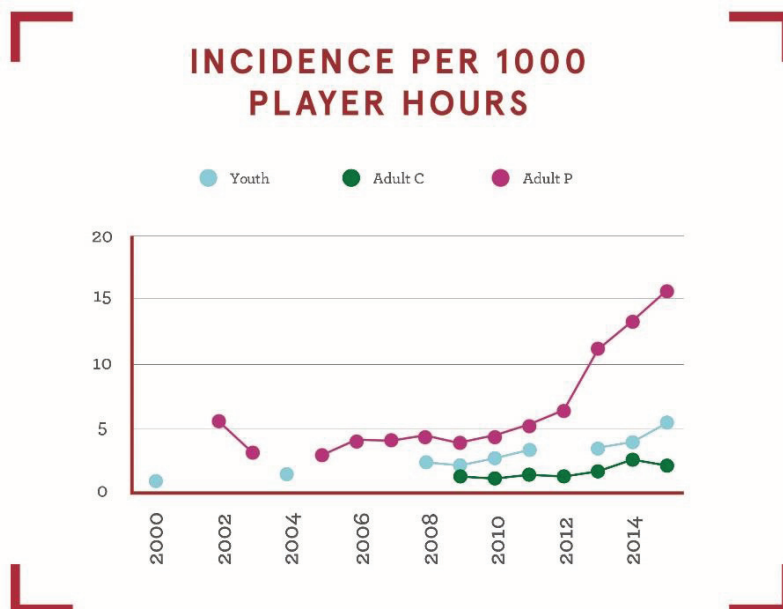
Regulations relating to concussion: <http://www.worldrugby.org/handbook>

Guidance and Education: <http://playerwelfare.worldrugby.org/concussion>

## Concussion in Rugby

Concussions occur in everyday life and not just in sport. Rugby as a contact sport does involve frequent body impacts and therefore a risk of accidental head impacts, and thus a significant potential risk of concussion.

The concussion rates at various levels of the game are shown in the below graph. In youth rugby (age 15 – 18) the most recent rate shown equates to one concussion per team every 10 games. In professional rugby it is one every 2-3 team games. The rise in the rates seen since 2012/13 are almost certainly mainly due to the increased awareness and the much lower threshold for suspecting concussion, and reflect the success of the awareness and education programmes, and media coverage.

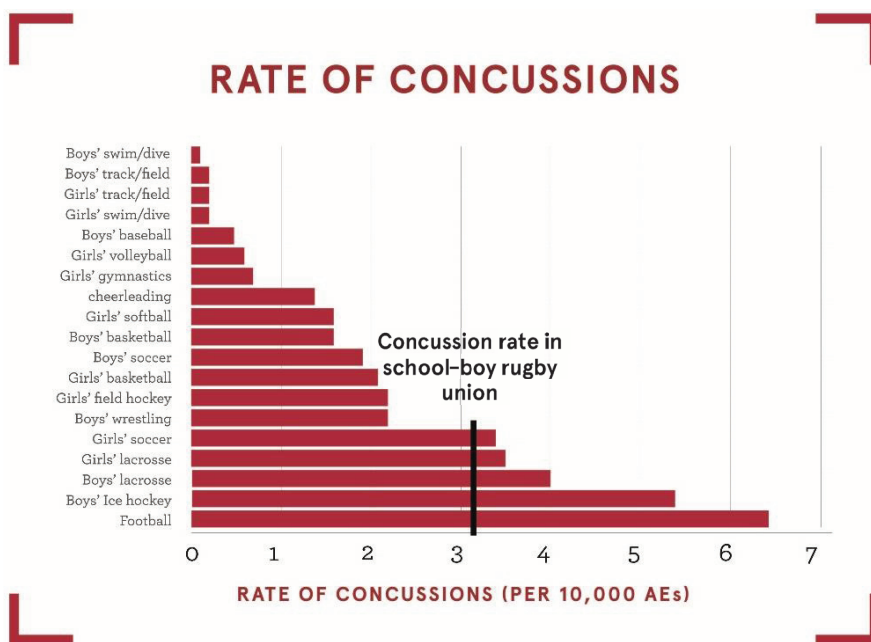


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## How does this compare to other sports?

The graph below shows rates of concussion from American High School Sport (Football = American Football), and the black line shows the rate for youth rugby converted to the same units (3.2 per 10,000 AEs).



Concussion Rates in US Middle School Athletes, 2015-2016 School Year (Kerr et al., 2017)

Comparative data for sports and activities in UK is not available as the RFU is the only National Governing Body that collects and publishes such data through independent research.

## Short/Medium Term Consequences

The majority of people make a full recovery from their concussion within a few days or weeks; however a small minority of individuals may have persistent symptoms. Concussion and persistent symptoms are very complex conditions which are poorly understood. What is becoming apparent from research is that persistent concussion symptoms do not necessarily reflect an on-going physiological injury to the brain, and there are a number of both pre-injury and post-injury psychological and social factors which appear to have an influence.

Persistent symptoms can however have a major impact on quality of life, education and work. It is therefore important that concussions are managed well, that persistent symptoms are recognised early, and when identified, such individuals are referred for expert management and support.

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## Long Term Consequences

(Position Statement from RFU Independent Concussion Expert Panel)

The proposed link between concussion and rare neurodegenerative conditions such as Chronic Traumatic Encephalopathy (CTE) is unclear at present. It is thought that the risk is related to repeated concussions in susceptible individuals who have genetic and other individual risk factors.

While any relationship is unclear at present, it is widely agreed that the benefits of exercise still far outweigh the risks. NHS Choices recommends rugby as a way to undertake vigorous exercise, which is linked to better general health, stronger bones and muscles, as well as higher levels of self-esteem.

This potential future risk of neurodegeneration is why it is so important to manage concussion in accordance with best practice. Not doing this may put a player at higher risk of developing progressive neurodegenerative problems that may lead to problems with memory, other mild cognitive impairments or CTE in later life.

The UK Chief Medical Officers responded to concerns about injury and concussion in rugby by stating:

*“The Committee reject the call to ban tackling, do not feel rugby participation poses an unacceptable risk of harm and could not support any actions that would increase inequalities in participation. We think the benefits of experiencing, learning, training and playing rugby, with appropriate supervision, safety and coaching, considerably outweigh the risks of injury.”*

(UK CMOs, July 2016)

## Second Impact Syndrome

(Position Statement from RFU Independent Concussion Expert Panel)

If you continue to play after sustaining a suspected concussion, or you return to play before full recovery, you could be exposed to further head impacts and put you at increased risk of a more serious brain injury such as a very rare condition often referred to as Second Impact Syndrome.

It is clearly stated in all our concussion education resources that a head injury can at its most extreme, lead to death. We also make it clear that it can be very difficult in the early stages to differentiate concussion from other serious brain injuries. This is why we promote the “Recognise and Remove” approach to this injury within the community game.

Education on prevention of head impacts, good in-game concussion management, and following the return to play guidelines are key to preventing such injuries from occurring.



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## Multiple/Repeated Concussions

As there is considerable variation in the initial effects of concussion that a player can experience, with individuals having different thresholds and responses. Spontaneous recovery can be often rapid; this can increase the potential for players to ignore concussion symptoms at the time of injury or return to play before they've fully recovered. There are therefore concerns that repeated concussion – particularly before full recovery – could shorten a player's career, significantly interfere with their academic performance, and may have some potential to result in permanent neurological impairment.

Players who experience two or more concussion in 12 months or multiple concussions over the course of their career should be reviewed on an individual basis. The severity of the concussion and recovery can affect the approach that is taken; some players may require an extended period out of the game. It may also be appropriate to look at the mechanism of injury/how are these concussions occurring, for example is it due to poor tackle technique and if so how can this be addressed by the coach/player.

If a player has repeated concussions, it is recommended that they are seen by a doctor specialising in concussion management (through a doctor referral). Each concussion should be considered on its own but a more conservative timescale for recovery or directed rehabilitation may be recommended especially if each time the force required to cause the concussion is lessened and/or the symptoms are prolonged.

## Other Sources of Information:

NHS Choices: <http://www.nhs.uk/conditions/Concussion/Pages/Introduction.aspx>

Headway: <https://www.headway.org.uk>

Supporting Head Injured pupils in Schools: <http://www.shipsproject.org.uk>

Child Brain Injury Trust: <https://childbraininjurytrust.org.uk>

Brain and Spine: <http://www.brainandspine.org.uk>

Brain Injury Rehabilitation Trust: <http://www.thedtgroup.org/brain-injury>

Headinjurysymptoms.org: <http://www.headinjurysymptoms.org>



*The information contained in this site is intended for educational purposes only and is not meant to be a substitute for appropriate medical advice or care. If you believe that you or someone under your care has sustained a concussion we strongly recommend that you contact a qualified health care professional for appropriate diagnosis and treatment. The authors have made responsible efforts to include accurate and timely information. However they make no representations or warranties regarding the accuracy of the information contained and specifically disclaim any liability in connection with the content on this site.*

