



**CONCUSSION
AUSTRALIA**

Submission to the Senate Inquiry: Concussions and repeated head trauma in contact sports

3 February 2023

Background

Concussion Australia is a new charity that educates grassroots' communities about concussion. Our people include medical experts, lawyers, health professionals, as well as those who remain affected by concussion.

We provide concussion education workshops and presentations to the public, which extends to legal education about concussion and the law, and also offer monthly online support groups for people and their families struggling with concussion.

Terms of Reference

- a. the guidelines and practices contact sports associations and clubs follow in cases of player concussions and repeated head trauma, including practices undermining recovery periods and potential risk disclosure;**

Guidelines

The guidelines and practices that contact sports associations and clubs follow when concussions occur vary from sport to sport. Some associations and clubs support and endorse the Concussion in Sport Australia Position Statement, while having contrary material in their own guidelines.

This is made more difficult because the Concussion in Sport Australia Position Statement has medically incorrect material in it while simultaneously being positioned as the pinnacle guideline to follow.

The Australian Football League ("AFL") guidelines allow for players to return within 12 days of a concussion, while National Rugby League ("NRL") players are permitted to return earlier provided an independent doctor clears the player.

The NRL and AFL at the professional level are the sports that are consistently in the headlines. There are many other sports with a high risk of concussion that are not constantly subject to media reporting.

Boxing Australia ("BA") has a 30 day mandatory out period following a concussion in competition (which progressively increases following further concussion/s), while Muay Thai Australia ("MTA") introduced concussion guidelines in late 2019 (also a 30 day out period from competition only).

The MTA guidelines are inadequate and to our knowledge are one of the worst examples of concussion guidelines across all sports. The guidelines place sole responsibility on parents and athletes to manage concussion, absolving the coach and gym of responsibility in their entirety, even though concussion should be reported "immediately to the coach". They further note that assessment of risk remains with the individual, and they also create confusion about whether a medical clearance is or is not required.

The BA guidelines are in some cases adequate, though concussions that occur in training can be exempted from the otherwise mandatory timeout periods. They also wrongly advise that concussed athletes should be woken up every 1-2 hours after a concussion.

The redundancy of the rules in many of the combat sports can be seen through fighters being "dropped" from a blow(/s) to the head, then eight/ten counted, then continuing to fight. This means that fighters can be concussed on multiple occasions in a fight, and on some occasions have further fights on the same day.

Other sports such as Motorcycling Australia have no guidelines, referring instead to the 2012 Consensus Statement on Concussion in Sport Guidelines. Water Polo is not unified in their guidelines, with Water Polo Australia having a separate guideline to Water Polo Queensland.

Equestrian Australia has a 1 page concussion protocol, while the 2 page Pony Club Australia Concussion Policy has a 21 day time out period that "can be removed by providing a certificate from a Medical Practitioner stating that full recovery has occurred".

Risk disclosure

Risk disclosure has to date been minimal at all levels in most sports. This is evident through the lack of meaningful steps put in place by many associations and clubs to properly educate and inform participants of the risks of concussion.

One step the AFL has taken in their attempt to assist participants at the grassroots' level to manage concussion is through creating the HeadCheck App.¹ There is misinformation about concussion in the HeadCheck App, which is concerning because experts appear to have been involved in its design.

For example, in the education section of the application, concussion is referred to as a "*minor head injury*", while another section notes it to be "*a type of mild head injury. It happens when the head gets bumped, which causes a short-term change in how the brain works.*"

Both statements are incorrect in various ways, failing to acknowledge the well-recognised mechanisms of injury while downplaying the seriousness of concussion.

The Concussion in Sport Australia Position Statement notes something similar, concluding on the first page of content (p.5) that "*it [concussion] causes short lived neurological impairment*". It is well known that concussion does not always cause "short lived" impairment.

These types of statements mislead the community about concussion and its risks, and it is unacceptable that the seminal statement that clubs and bodies (and in many cases, have fully accepted) look to draws these types of conclusions.

Recommendation: Concussion Australia recommends a uniform set of guidelines be developed by independent medical practitioners at a concussion in sport conference for use in all Australian sports, funded by the Australian Government.

b. the long-term impacts of concussions and repeated head trauma, including but not limited to mental, physical, social and professional impacts;

The long-term impacts of concussion and repeated head trauma with respect to causing CTE is evidentially inconclusive. Chronic Traumatic Encephalopathy ("CTE") has an association with concussion/s, but the extent of that is not yet known.

To make definitive conclusions more research is required into matters such as the number of concussions that someone has suffered throughout their life, the space of time between those concussions, the age at which the concussion/s occurred and genetics.

Outside of those who are diagnosed with suspected CTE and/or CTE, there are thousands of people who live with the ramifications of concussion daily with persistent post-concussion symptoms ("PPCS"), sometimes for months and years – some people never recover, which can affect every part of their life.

Compounding these issues is the lower quality of care that people with concussion may receive in comparison to other injuries from General Practitioners and Emergency Department staff.

We appreciate the challenging work that GPs and EDs undertake, though it is our experience that these professionals have often been unable to properly treat and manage concussion.²

¹ This is the approved concussion management application by the AFL, which is also used and referred to in several other sporting concussion guidelines.

² For example: Thomas E, Huijun C, Gabbe B, Fitzgerald M, Cowen M, *A cross-sectional study reporting concussion exposure, assessment and management in Western Australian general practice* (2021) <<https://pubmed.ncbi.nlm.nih.gov/33653287/>>; This may also be linked to the RACGP's full acceptance on the Concussion in Sport Australia Position Statement as a treatment guideline, when it only deals with treatment of concussion at a surface level.

Guidance on solving this issue may be seen from the UK Government response on 10 December 2021 to the Parliamentary *Select Committee report on concussion in sport* with the Government agreeing in part that all GPs and emergency doctors complete formal training on concussion by 2023.³

c. the long and short-term support available to players affected by concussion and repeated head trauma;

At this stage all sporting associations (and stakeholders at large: governments, parents, coaches, society) have failed to support former players living with concussion. From a financial perspective, the people who are most affected are those who never made large sums of money as professionals yet remain affected by concussions they sustained during their career.

The pending concern of associations and clubs in our view remains with legal liability compared to supporting current and former athletes with concussion and concussion related injuries.

d. the liability of contact sports associations and clubs for long-term impacts of player concussions and repeated head trauma;

There are several claims on foot in the courts for concussion and concussion related injuries. There is minimal case law in this space which makes this a complicated and uncertain area of law. Matters such as inadequate insurance coverage can significantly affect the ability to claim compensation, which may stem from the failure of clubs, gyms, or otherwise, to have proper insurance in the first place.

Causation is also a core issue because the medicine itself may be unclear and/or not accepted, which may make proving a breach of duty very difficult. If the cases do/did make it to Court, the evidence (among other things) would show what the associations and clubs knew at the relevant time/s.

Recommendation: To fully comprehend and understand any potential liability of associations and clubs (and any different insurance models that may be available), we recommend the Committee considers calling as witnesses former athletes who have commenced or discontinued proceedings in Court for concussion and related injuries.

e. the role of sports associations and clubs in the debate around concussion and repeated head trauma, including in financing research;

There is a perceived conflict of interest in associations being actively involved in research, and in our view the associations and clubs have so far failed in their duty to educate participants about concussion.

Despite the perceived conflict of interest that exists (and perhaps also with respect to certain doctors), our position is that sporting associations and clubs should be involved in financing research due to the profits made in circumstances where athletes and former athletes may suffer from concussion.

Recommendation: We propose that sporting associations financially contribute to a communal concussion research fund which is administered by the Australian Government (or its delegate).

f. the lack of a consistent definition of what constitutes ‘concussion’;

There is no consistent definition of concussion, and as detailed above at (a.), we are concerned by the incorrect information that has been disseminated through the Concussion in Sport Australia Position Statement, and to a lesser degree, the Sports Medicine Australia/NSW Office of Sport Guidelines.

The SMA Guideline refers to concussion conclusively as “a disturbance in brain function rather than a structural injury to the brain”, while the Concussion in Sport Australia Position Statement also has incorrect content in its definition (described above at a.).

Our view contrasts with the above guidelines, as we consider that concussion can be structural, functional, or both (depending on a wide variety of factors).

³ UK Government, Government Response to DCMS Select Committee report on concussion in sport (2021)
<<https://www.gov.uk/government/publications/government-response-to-the-digital-culture-media-and-sport-select-committee-report-on-concussion-in-sport/government-response-to-dcms-select-committee-report-on-concussion-in-sport>>.

In addition to the points discussed at **a.**, the Concussion in Sport Australia Position Statement notes (p.17) that *“it is yet unclear whether concussion involves mild structural changes, which would position it within the traumatic brain injury spectrum...”*.

A concussion is a mild traumatic brain injury, which places it on the TBI spectrum.

g. the prevalence, monitoring and reporting of concussion and long-term impacts of concussion and repeated head trauma, including in First Nations communities;

Due to poor data in Australia, it is unclear how many concussions have occurred in all communities. While we have been critical of the Concussion in Sport Australia Position Statement in some ways, it correctly identifies that *“precise data on the incidence of sport related concussion in Australia is lacking”*.

The AIHW data tables characterise injuries of this nature as either head and/or neck injuries and/or intracranial injuries, which does not assist in gaining a picture of the number or causes of concussions.

The UK Government response published on 10 December 2021 to the Parliamentary *Select Committee report on concussion in sport* similarly identified that there is a clear “lack of data about the scale and impacts of sporting head injuries in the UK.”⁴

Concussion Australia is attempting to combat this lack of data through surveys that we undertake at the beginning and end of every workshop. To our knowledge, this is the first large scale and continuous research project at the grassroots’ level of this nature.

Many governing bodies require concussions to be reported to them (or by virtue of a medical clearance form that is sent to them),⁵ while other governing bodies do not require concussion to be reported to them.⁶

Recommendation: A national concussion surveillance system be implemented requiring mandatory reporting of concussion in sport and school. Similar measures should be considered for hospitals, GP clinics, allied health clinics and places of work.

h. workers, or other, compensation mechanisms for players affected by long-term impacts of concussions and repeated head trauma;

This has been addressed to a degree in **d.**, though more specific mechanisms of compensation such as workers’ compensation may also be available to players. Often these injuries may manifest overtime, meaning that challenges with limitation periods may arise in addition to the medical challenges (diagnosis, treatment, management of injury).

We are not prepared to provide any recommendations with respect to class actions, remediation funds or otherwise until we are able to assess the merits of the proposal and/or claims. Limitation period reform should be considered at the State level for injuries of this nature.

i. alternative approaches to concussions and repeated head trauma in contact sport, and awareness raising about its risks;

Education is imperative in raising awareness about concussion and reducing repeated head trauma.

Despite the awareness of concussion as a concept, we do not believe that an appropriate level of education has been reached across the community at large. This is made more challenging when concussion education is not mandated at a legislative or a sporting level.⁷

In our early stages of operation, we have been able to identify the same; a significant level of complacency and reluctance in the sporting community at a grassroots’ level exists with respect to dealing with concussion.⁸

⁴ See footnote 3.

⁵ For example: Equestrian Australia, Cycling Australia, Boxing Australia, Cricket Australia has a Head Trauma Incident Register, Hockey Australia, Pony Club Australia.

⁶ For example: NRL, ARU, AFL, Muay Thai Australia, Ice Hockey Australia, Snow Australia, Water Polo Australia and Water Polo Queensland.

⁷ *Rowan’s Law* (Ontario).

⁸ For example, we recently held two free concussion education workshops in the Tweed and Gold Coast regions, inviting roughly 70 clubs (AFL, ARU, NRL) to each send two management members, with two reminder emails and RSVPs. We saw 2/28 clubs attend the first workshop, and 3/40 clubs attend the second workshop.

Given the volume of media reporting we also believe that the Australian public is aware of concussion as a concept. That reporting often does not assist or educate grassroots clubs and parents to manage and understand concussion.

While concussion in contact sport is inevitable, changes to rules may be made to minimise these from occurring. In the context of combat sports, steps can be taken immediately to improve fighter safety. This should include rule and/or legislative change that prohibits a fighter from continuing once they drop from head blows.

In our view proper collection of data also needs to be made a priority such that we can understand the magnitude of the problem before responding in a knee jerk manner.

Recommendation: Adequate concussion education be made mandatory for all participants (coaches, trainers, parents, committee members, management members) in contact sports.

j. international experiences in modifying sports for children; and

Concussion Australia does not currently have a view about modification to sport for children, although it may be important to consider in certain sports.

k. any other related matter

Baseline testing and private companies

Concussion Australia remains concerned with private companies and others in the concussion market selling baseline testing and other associated products such as concussion detection mouthguards. We believe a higher level of scrutiny needs to be applied to these products and companies to ensure they do what they say they do, and that they are not simply fear mongering or selling useless products.

In many circumstances, data may not be offered to the public to validate these products, and certainly there are some larger scale studies dealing with concussion detection devices that show them to be without merit in detecting concussion.⁹ Where these companies also offer concussion education services, a far higher level of scrutiny needs to be applied to determine whether motivations exist beyond objective education, and whether the content being taught is designed to also sell products of the nature described above.

Australian Government: response to recommendations

A 2012 Brain Injury Australia ("BIA") report prepared for the Commonwealth (Department of Families, Housing, Community Services and Indigenous Affairs) titled Concussion in Sport recommended that:

"the Australian Government, through the Sport and Recreation Ministers' Council and the Standing Committee on Recreation and Sport, develop, implement and fund a national cross sport education campaign in awareness and best practice assessment and management of concussion, suitable for sports administrators, coaches, trainers, players and the broader community."

While we acknowledge that the Labor Government has only been in for a short period, we are significantly concerned that there has been a decade of inaction with respect to the matters BIA raised.

⁹ O'Connor KL, Rowson S, Duma SM, Broglio SP. Head-Impact-Measurement Devices: A Systematic Review. J Athl Train. 2017 Mar;52(3):206-227. doi: 10.4085/1062-6050.52.2.05. PMID: 28387553; PMCID: PMC5384819.