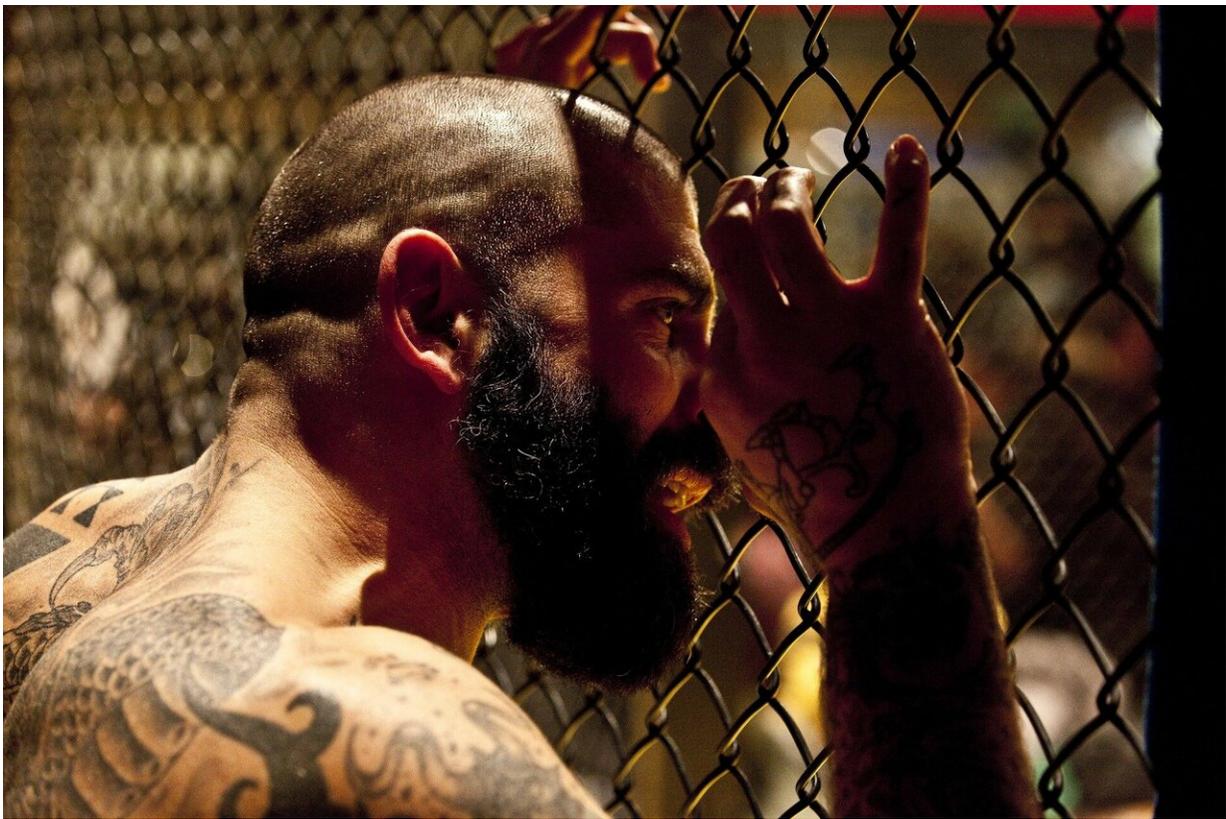


Concussion worse if fighters rapidly cut weight before boxing and MMA matches, study reveals

April 12 2022



Credit: CC0 Public Domain

Fighters who rapidly cut weight before bouts are at a higher risk of suffering concussions or being misdiagnosed with head trauma,

researchers have revealed for the first time.

More than 60 percent of athletes in combat sports like boxing and mixed [martial arts](#) (MMA) revealed their [symptoms](#) were worse after dehydrating themselves to make stringent [weight](#) classes before contests.

The controversial techniques see competitors stop drinking water and endure long periods in saunas to rapidly drop weight.

MMA athletes reported [concussion](#) severity to be 40 percent higher compared to other sports, particularly boxing—believed to be due to the mix of striking and contact with the ground.

The study by academics from St Mary's University, the University of Essex, and Swansea University comes after a string of tragedies linked to weight cuts, with some athletes even dying in the attempt to achieve a perceived competitive edge, by competing in a smaller weight class.

They found that as competitors dramatically dehydrate themselves to meet stringent weight classes, the associated symptoms may 'muddy the waters' of baseline concussion testing, due to similar symptoms.

This is because the symptoms of hypohydration—where competitors enter a water deficit—match concussive signs, such as dizziness, headaches, and lethargy.

This study has kickstarted further probes into the neurological implications of rapid weight loss and the researchers have called on governing bodies to check fighters' hydration levels before fights.

Researcher Nasir Uddin, from St Mary's University, said: "This study shows that current concussion testing does not account for the crossover of symptoms from being dehydrated, and is potentially putting fighters

at risk.

"Not only is cutting weight through dehydration in and of itself dangerous, but it might actually exacerbate concussion symptoms and, even more concerningly, means [medical professionals](#) may actually misdiagnose it.

"Going forward, governing bodies should ensure hydration and baseline concussion symptoms are taken into account before and after bouts."

The study is published in the *Clinical Journal of Sports Medicine* and surveyed more than 130 anonymous athletes representing six combat sports, all aged 18 or above and had previously cut weight.

It also discovered that 65 percent of the fighters had an experience of a weight cut "not going to plan", suffering a lack of energy, strength, power, coordination or increased susceptibility to being 'rocked' during a bout.

This means the dangerous practice may not offer a competitive advantage.

Dr. Jamie Tallent, from the University of Essex, said: "This is perhaps the most surprising finding that not only are weight cuts dangerous—they leave fighters at a disadvantage more often than not and may exacerbate the risks of being further injured."

More information: Nasir Uddin et al, A Survey of Combat Athletes' Rapid Weight Loss Practices and Evaluation of the Relationship With Concussion Symptom Recall, *Clinical Journal of Sport Medicine* (2022). [DOI: 10.1097/JSM.0000000000001032](https://doi.org/10.1097/JSM.0000000000001032)

Provided by University of Essex

Citation: Concussion worse if fighters rapidly cut weight before boxing and MMA matches, study reveals (2022, April 12) retrieved 4 June 2024 from

<https://medicalxpress.com/news/2022-04-concussion-worse-fighters-rapidly-weight.html>

This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.