Football Is Deadly, but Not for the Reasons You Think

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Former N.F.L. offensive lineman Uche Nwaneri, 77, during a game against New York Giants at New Meadowlands Stadium in November 2010. Mr. Nwaneri died from a heart attack on Dec. 30, 2022; he was 38.Suzy Allman for The New York Times

By Chris Nowinski

Mr. Nowinski, a former professional athlete, is a behavioral neuroscientist and founding C.E.O. of the nonprofit organization Concussion Legacy Foundation.

When Damar Hamlin suffered a cardiac arrest during the N.F.L. “Monday Night Football” game earlier this week, it felt like the world stopped — both on the field, where emergency medical teams rushed into action and fellow players looked on in shock, and on televisions in millions of homes, where fans tried to make sense of what they had just witnessed in real time.

Just moments earlier the second-year Buffalo Bills safety had made a

tackle on the Cincinnati Bengals' Tee Higgins, causing his chest to collide violently with Higgins' helmet. Cardiologists have speculated that the impact may have triggered commotio cordis, a rare condition that can occur when the chest wall is impacted during a narrow, vulnerable moment in the heartbeat cycle, which can knock the heart out of rhythm. Hamlin has made remarkable progress, but the condition can be fatal.

The episode has focused international attention on the physical dangers of football, with many parents wondering anew if they should allow their children to play and some fans questioning whether it's ethical to support the sport at all.

As a former college football player and neuroscientist who has advocated better protections for athletes for the last 20 years, I am encouraged by the outpouring of support for Mr. Hamlin, a talented player and a role model, and for his family.

But as alarming as his injury was, the terrifying incident carries a secondary risk: It is focusing attention on a single, dramatic outlier rather than the chronic medical conditions that pose by far the greatest danger to players.

According to the National Commotio Cordis Registry, there are an estimated 15 to 20 cases per year nationwide, usually in sports like baseball or hockey when a fast-moving projectile connects with an unprotected chest. In football, where players wear lots of padding, an event like this is so rare at the N.F.L. level that it probably won't occur again in our lifetimes. Meanwhile, chronic heart disease and the long-term effects of traumatic brain injuries have robbed countless players

of their health, their happiness, and even their lives, but do not receive the same medical or cultural attention because they happen away from the cameras.

Hours before the Monday night game, I learned that former N.F.L. offensive lineman Uche Nwaneri, who started 92 games at guard and center for the Jacksonville Jaguars, had died from a heart attack at the age of 38. Uche and I had been messaging on Twitter about our shared concerns about concussions and chronic traumatic encephalopathy (C.T.E.). He had struggled to find his next passion after retiring, but had recently gained a dedicated following on YouTube commenting on football and pop culture, calling himself the Observant Lineman. He is survived by his wife Michele and two young daughters.

Young former N.F.L. players, mostly linemen, die from heart attacks or heart disease nearly every year. In addition to Uche, Shane Olivea died in March at age 40. Max Tuerk, age 26, died in 2020. Taylor Whitley, age 38, 2018. Jeremy Nunley, age 46, 2018. Nate Hobgood-Chittick, age 42, 2017. Rodrick Monroe, age 40, 2017. Ron Brace, age 29, 2016. Quentin Groves, 32, 2016. Damion Cook, 36, 2015. According to a 2019 study from Harvard University, N.F.L. players are 2.5 times more likely to have cardiovascular diseases listed as an underlying or contributing cause of death than Major League Baseball players.

Scientists believe N.F.L. players are at greater risk of heart disease because of the weight they gain, even when it is mostly muscle. Once players retire, it's extremely difficult to lose the football weight, partially due to chronic pain from injuries suffered playing. (N.F.L. players ages 25 to 39 have about three times the rate of arthritis than the general

public.) These men's untimely deaths were a tragedy to their loved ones, friends, and former teammates, but the public was largely unaware.

Neurological disorders are also uncomfortably common among former N.F.L. players. Uche had recently invited me on his podcast. We planned to discuss how football players should interpret data from the Boston University's C.T.E. Center study showing that around 90 percent of the more than 300 N.F.L. players they have studied since 2008 have had C.T.E., a neurodegenerative disease that is linked with the development of dementia and is caused in part by repeated traumatic brain injuries. While it is unlikely that those 300 N.F.L. players studied are representative of the total N.F.L. population, a separate analysis has suggested the minimum prevalence in N.F.L. players is 10 percent, more than 10 times what it is in the general population. Uche wanted his brain tested for C.T.E. upon his death, and his family is following through on his request.

Neurological damage from repeated head trauma may be behind the findings that N.F.L. players are three times more likely to die of amyotrophic lateral sclerosis, and 3.5 times more likely to die of Parkinson's disease than Major League Baseball players. Death certificates tend to undercount dementia, but a survey published last year found that N.F.L. players in their 50s are 10 times more likely to be diagnosed with dementia than the general population.

The risks N.F.L. players incur are not limited to their years on professional teams. C.T.E. risk is partially determined by the length of a player's career — the longer one plays football, the more head impacts and traumatic brain injuries they are likely to suffer, the greater their risk. Therefore, this risk is also shared by college football players, high

school, and even youth players, all of whom are exposed to the risk, the vast majority without any financial upside — and in the case of children, without informed consent.

I hope the football safety conversation that Damar Hamlin has inspired makes the game safer for young players who consider him a hero and want to follow in his footsteps. I also hope the public will focus on what we can influence, including how we manage risk factors for heart disease and when we introduce our children to tackle football. According to a study by the C.D.C., youth tackle football players average 389 head impacts a season. Perhaps we should Stop Hitting Kids in the Head and push for only flag football before high school. And perhaps those who profit off the sport should start to live up to their responsibility. The N.F.L. requires on average 30 medical professionals at each game. But while the risks do not end on the field, the medical care often does.

Damar Hamlin deserves every ounce of our attention, support and respect after putting himself at risk for our entertainment. Let's keep talking about him, his family, his teammates, his city and the fans that have rallied behind him, and all the positives that he has inspired and represents, including the preciousness of life — even the parts of it that are not captured on camera.

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