

Dear Santa Barbara area schools, school newspapers, and local publications,

I submitted the following letter to the Santa Barbara Independent in response to their October 5, 2017 cover story titled “Concussions – Keeping Young Athletes in the Safety Zone.”

I was asked to cut this letter down to less than 300 words if I wished it published in their print edition. I believe the information in my response is too important to cut its content by 75%. Therefore, I am sending this directly to you in hopes of properly balancing the one-sided Independent story. Please figure out the best way to distribute this article to your students, their parents, and the Santa Barbara area general public.

### **Letting Our Children Play Football is the “Definition of Child Abuse”**

I preface this letter with the fact that I have been a lifetime fan of NFL football. Therefore the information that I am about to relay in this letter is upsetting to me as a fan, as well as a doctor.

The title of this letter is not mine; it's a quote made by Dr. Bennet Omalu MD after the latest study on Brain trauma was released this past September by Boston University and published in the Journal of the American Medical Association (JAMA). Dr. Omalu is the discoverer of Chronic Traumatic Encephalopathy (CTE) and was played by Will Smith in the 2015 movie “Concussion.” CTE is the degenerative brain disease that forced NFL team owners to pay up to 5 million dollars in care for each vested NFL player, created the new “Concussion Protocol” we see each week during NFL games, and has opened up the eyes of students, parents, college, and professional players to the real dangers of “getting hit in the head.” To date, over 3,000 former NFL players are suing the NFL for withholding information about the dangers of playing football.

As an expert in treating brainstem traumas, the owner of The Human Tune-Up, and the developer of Brainstem Balancing, I found that the Independent’s cover story on concussions glossed over or skipped entirely many major points and important information on the dangers of contact sports like football to our children.

The three experts in the story are all vested in the continuation of Santa Barbara High School football - one a coach, one a referee, and the third, the team Chiropractor - and their opinions show their bias for the sport.

Referee Jim McCann stated that “When I played football, my helmet was a battering ram.” Today, many running plays still end with the halfback or fullback using their heads as a “battering ram” to get that extra yard or two. Watching them lowering their head and driving forward virtually guarantees that each of those plays will result in a “sub-concussive hit” to their brainstem. More on what a “sub-concussive hit” is later in this article.

San Marcos’ coach, Jason Fowle, stated after an opposing player was penalized 15 yards for a blow to a San Marcos player’s head, “I thought it was a good hard hit.” His response is one of the problems with the entrenched football dogma – what he calls a “good hard hit” is in fact a trauma to the brain. He further states that “the value of being on a team outweighs the risks.” Sorry, but it doesn’t, because there are plenty of other brain safe team sports that can provide “the value of being on a team.”

His admission that football is “a game of violence” should be reason enough for us to end this abuse to our children. His final statement in the story that “My advice is to play football in high school, but

after that, only if you have a chance to make millions” is dangerous for high school athletes to follow.

The latest CTE study just released a few months ago by Boston University and published in JAMA revealed that 21% of the high school football players brains studied had CTE. (90% of the College players and 99% of the professional players had CTE!).

Another study found that high school football injuries associated with the brain occur at the rate of one in every 5.5 games. In any given season, 20% of all high school players sustain brain injuries.

The July 26, 2017 issue of Forbes magazine summarized what happens with even “mild” CTE:

It's worth noting how devastating even mild cases can be: 85% of players with mild CTE had clinical symptoms that worsened over time, and 96% had behavioral and/or mood symptoms. About two thirds (67%) had symptoms of depression and just over half (52%) had anxiety symptoms. A majority also showed the following symptoms:

- 89% demonstrated impulsivity.
- 69% felt hopelessness.
- 67% had an explosive temper.
- 67% had substance use disorders.
- 63% were verbally abusive toward others.
- 56% experienced strong suicidal thoughts.
- 52% were physically violent.

The most common cause of death among those with mild CTE was suicide, the way more than a quarter of those players died. In addition, 85% of those with mild CTE had cognitive and thinking problems, including poor memory in 73%, difficulty with attention or focus in 69%, and executive function issues in 73%. Executive function involves a range of skills necessary for day-to-day life, including planning, organizing, time management, multi-tasking, maintaining focus, memory and self-control.

Every individual with CTE in the study—including the high school and college students—had at least one mood, behavior or cognitive symptom. The positions with the greatest proportion of CTE were offensive and defensive linemen, linebackers and defensive backs.

So “just” playing high school football is seriously dangerous. The study also revealed that those young players that started football before the age of 12 (Youth Football), had 300% higher risk of depression and 200% the chance of “clinically meaningful impairments” to behavior as adults. As Robert Stern, a Boston University professor who is one of the study’s senior authors, said, “I’m at a point where I feel comfortable saying that, based on logic and common sense and the growing totality of the research, I don’t think kids should be playing tackle football.”

Dr. Bennet Omalu MD, who speaks English with an African twist, additionally stated that parents could and should be charged with child abuse for letting their children play a sport that is now proven to be a health hazard – stating: “Someday there will be a District Attorney who will prosecute for child abuse [on the football field], and it will succeed,” and letting your child play football “is the definition of child abuse.” He believes that no one under 18 should be playing football. He continued: “If you play football, (or) your child plays football, there is a 100 percent risk exposure. There is nothing (that can make) football safer.”

Recently some NFL players have chosen the health of their brain over money by retiring early. One such player, San Francisco 49ers linebacker Chris Borland, retired at the age of 24 after a stellar rookie season once he read the study on CTE. He stated “My brain is worth more than the millions

from football" and he didn't think football was "worth the risk." Likewise, star offensive lineman Jacob Bell retired early in an effort to prevent his health and cognitive function from being affected by football. And just this past July, John Urschel, an offensive lineman for the Baltimore Ravens retired early at 26 years of age. What makes his decision especially poignant is that he was considered the smartest player in the NFL, and he has enrolled at MIT to pursue a doctorate in Mathematics.

On October 10<sup>th</sup>, ESPN and ABC College football analyst and broadcaster Ed Cunningham announced he was walking away from his TV career due to concerns over brain trauma injuries within the sport of football. The New York Times chronicled the reasoning for Cunningham's decision to retire, citing being in the booth and watching player injuries first-hand: "...the real crux of this is that I just don't think the game is safe for the brain. To me, it's unacceptable."

Although 140,000 concussions are estimated to occur while playing high school football each year – and that's serious, an even more common and insidious injury is the newly termed "sub-concussive hit". This is Dr. Omalu's name for the thousands of "less than a concussion" hits that occur everyday during football practice and of course in games. Dr. Omalu estimates that a professional football player can receive a total of 70,000 of these traumas by the end of their career.

The general public is not immune to these injuries either. They just receive their sub-concussive traumas via everyday falls, hits to the head, and what we used to classify as "minor" accidents. Who among us has not been in an automobile accident, skateboarded, fallen off a horse, fell down stairs, played in a schoolyard, surfed, participated in team sports, or had an impact to our head? The majority of these events would be classified as "sub-concussive" in the amount of force delivered. The major problem with sub-concussive traumas Dr. Omalu found is that there is no observable damage or impairment at the time of the injury – they just layer over all the previous sub-concussive events, silently impacting the future health of those involved.

The football specific studies positively link sub-concussive traumas to major diseases like CTE, Alzheimer's, Parkinson's, Multiple Sclerosis, depression, suicidal thoughts, and anger issues. Other studies and my clinical practice have shown that we can add: asthma, allergies, migraines, stomach issues, hormone imbalances, and hundreds of other health conditions to the effects of what were previously thought of as inconsequential injuries.

So, what can we do? We can have our student athletes participate in team sports that are safe for their brains, nerve system, and future wellness. Other cities and towns across the country have started to drop their football programs because of the above studies. Many of these "early adopter" towns are like the greater Santa Barbara area – in that they are located in areas with well educated parents - like Novato High School in Marin County and Napa's Justin-Siena High School. Even Southern California powerhouse Long Beach Poly, which has sent dozens of players to the NFL, gave up its junior varsity squad this past summer with the varsity to follow.

Varsity football had a nationwide 26,000 player drop from just last season to this season, and in the past 5 years 28 communities in California, 57 in Michigan, 24 in Missouri, and 12 in Pennsylvania have ended their high school football programs.

Youth football leagues (12 years old and younger) saw a nearly 30 percent drop in participation between 2008 and 2013 according to data collected by the Sports & Fitness Industry Association. Their next report, due soon is sure to show an even more dramatic drop.

The writing is on the wall. The question is: When will Santa Barbara, Goleta, and Montecito step up? I am creating a page on my website ([www.BrainstemBalancing.com](http://www.BrainstemBalancing.com)) with the studies and articles mentioned in this letter, and I will add new information as it is released.

Hoping to save our next generation,

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