The Concussion Crisis

By: F. Scott Addis, CPCU, CRA, CBWA

For millions of Americans, the holiday season is filled with anticipation and excitement about college football bowl games as well as the NFL playoffs. Take a safe, comfortable seat in your home and marvel over the athletic abilities and decision-making of these gifted athletes. It does not get better than this. Right?

Well, before you jump to conclusions, let's take a look at the lives of three athletes who captured our attention on national television just a few years ago – Jim McMahon, Art Monk, and Junior Seau.

Jim McMahon played his college football at Brigham Young University where he was a two-time All-American and later starred in the professional ranks with the Chicago Bears, San Diego Chargers, Philadelphia Eagles, Minnesota Vikings, Arizona Cardinals, Cleveland Browns, and Green Bay Packers. He won two Super Bowl titles. Born in Jersey City, NJ, he was tough as nails. A brash and gutsy quarterback, he never shied away from contact. Today, McMahon struggles with dementia and depression. He has trouble remembering the most basic stuff and has severe mood swings. A few years back, McMahon said, "I am glad I don't have any weapons in my house as I am pretty sure I would not be here."

Art Monk was a wide receiver for the Washington Redskins, New York Jets, and Philadelphia Eagles. Inducted into pro football Hall of Fame in 2008, Monk spent 14 seasons with the Redskins, winning three Super Bowls. He was so gifted that he was named to the NFL's 1980s All-Decade Team. A humble, quiet man who shunned the attention of the national press, Monk was voted the most popular Redskin of all time. That being said, Monk felt compelled to join more than 2,000 former players in suing the NFL for the effects of concussions suffered during their playing careers. The suit contends that the NFL concealed the long-term effects of

concussions while "engaging in a long-running course of negligent and fraudulent conduct." Today, Monk suffers from short-term memory loss, headaches, and speech difficulties.

Junior Seau had a distinguished career at the University of Southern California. Chosen by the San Diego Chargers as the fifth overall pick in the 1990 NFL draft, Seau was a 12-time Pro Bowl selection and led the Chargers to the Super Bowl before being traded to the Miami Dolphins and later the New England Patriots. Nicknamed the Tasmanian Devil, Seau retired in 2010 with 1846 tackles. During his time in San Diego, Seau was the face of the Chargers. In May 2012 – only two years removed from football – Seau was found dead with a gunshot wound to his chest. His death recalled the suicide of former NFL player Dave Duerson, who shot himself in the chest and left a suicide note requesting that his brain be studied for brain trauma. As there was speculation that Seau also suffered brain damage, his family donated his brain tissue to the National Institute of Neurological Disorders and Stroke. And in January 2013, the Seau family sued the NFL over the brain injuries suffered during his career.

Concussions Leading to Chronic Traumatic Encephalopathy (CTE)

Concussions occur when the head is subjected to a large impact force, resulting in a brain injury. There is growing evidence that football players are prone to the kind of damage common in boxers, a condition referred to as chronic traumatic encephalopathy (CTE). Researchers can only detect CTE after a person has died, but they are working on ways to diagnose it earlier.

Concussion symptoms can last for an undetermined amount of time depending on the player and the severity of the concussion. So far, scientists have identified 26 symptoms that can develop, depending on which area(s) of the brain are affected. For example, if a majority of the dead cells are located in the cerebellum (i.e., back of the head), players can lose their ability to balance properly. If they die off in the labyrinthine, which is located near the inner ear and is responsible for hearing, they might suffer dizziness and tinnitus. Or if the frontal and temporal lobes are inflicted, they might have trouble retrieving memories, making new ones, controlling their impulses, and keeping anger in check.

Perhaps just as worrisome as several concussions is the sum of smaller impacts over time. The typical football player – over the course of youth programs, high school, college, and a pro career – will encounter thousands, if not tens of thousands, of hits to the head. Experts believe that this increases the risk of CTE. It is becoming increasingly obvious that the long-term risks usually do not become salient to the players until long after they have retired.

The NFL acknowledged the link between football and CTE for the first time in 2016. Of interest, a record 291 concussions were reported in the NFL in 2017. And the NFL settled lawsuits over injuries from concussions with more than $520 million paid out to players in a settlement that took effect in January 2017. This settlement resolved thousands of lawsuits accusing the NFL of hiding what it knew about the risks of repeated concussions.

Beyond Football...the risks in other sports

Although as many as 50 percent of concussions go unreported, it is estimated as many as 1.6-3.8 million concussions occur in the U.S. per year in competitive and recreational activities. The American Medical Society for Sports Medicine issued a position statement: "Concussions occur in all sports with the highest incidence in football, hockey, rugby, soccer, and basketball." And in men's and women's sports that can be directly compared—lacrosse, ice hockey, soccer—female athletes tend to have higher rates of SRC than their male counterparts.

Below is the injury rate per exposure based on sports in collegiate athletes as published by the *Journal of Athletic Training:*

Sport	Injury rate per 1,000 athletic exposures
Women's ice hockey	0.91
Men's ice hockey	0.41
Women's soccer	0.41
Men's football	0.40
Men's soccer	0.28
Men's lacrosse	0.25
Women's lacrosse	0.25
Men's wrestling	0.25

Sport	Injury rate per 1,000 athletic exposures
Women's basketball	0.22
Women's field hockey	0.18
Men's basketball	0.16
Women's gymnastics	0.16
Women's softball	0.14
Women's volleyball	0.09
Men's baseball	0.07
All sports	0.28

Concussions and Suicides

Most terrifying is the link between brain injuries and suicides as evidenced by a Canadian research study that found a three-fold increase among adults who had concussions. After studying a health insurance database of more than 235,000 people, their work was published in the *Canadian Medical Association Journal*. Rather than focusing on athletes or people who were hospitalized for days or weeks after head injuries, the researchers looked at ordinary people who had concussions but did not sustain brain injury. They matched those whose official death certificates listed suicide with their medical history over a 20-year period. They found a suicide rate of 31 deaths per 100,000 patients — three times the population norm.

While you may be aware of the highly publicized suicides of former NFL players, such as Terry Long, Andre Waters, Shane Dronett, Dave Duerson, Jovan Belcher, Paul Oliver, and Adrian Robinson, there are countless people who played competitive sports in their youth who also have taken their lives. Kosta Karageorge, a football player at Ohio State, was found dead in a dumpster from an apparent self-inflicted gunshot wound. Owen Thomas, the University of Pennsylvania football captain, hanged himself in his off-campus apartment. And the body of

Corey Bischof, the 18-year-old quarterback from Cumberland Valley High School in Pennsylvania, was found in a wooded area behind a church. It was determined in each of these cases that there was a direct link between a history of concussions and the onset of CTE.

Risk Management

As you have experienced first-hand, the NFL is taking a proactive stance on the rising concussion rates with the adoption of a new rule prohibiting any player from lowering his head to contact an opponent. Put simply, it has outlawed using the helmet as a weapon. Violation of the rule will draw a 15-yard penalty or, possibly, an ejection from the game plus a fine or suspension. The rule is a tortuous step in the right direction by a league fighting for its future as awareness of research deepens about the long-term consequences of fast, large athletes crashing into each other. The NFL has also zeroed in on the safety of the helmet itself, with laboratory testing leading to banning of 10 helmet models and the ranking of 24 other models.

It is important to note that colleges, universities, high schools, and youth football programs are also proactively attempting to manage the risks and uncertainties of head trauma. Unfortunately, these risk mitigation strategies have not slowed down the swell of lawsuits. Claims against the NFL, colleges, universities, and youth sports leagues for head injuries are on the rise. The cost of defending these suits is proving very costly and raises a number of unsettled insurance coverage issues, including what policies afford coverage, how the defense costs and damages will be allocated, and whether any policy exclusions apply to limit coverage. Determining when the accident or injury took place, and consequently what policy applies, is also proving to be a challenge.

The concussion crisis…it must be solved!

About the Author

Scott Addis, CPCU, CRA, CBWA is the CEO of Beyond Insurance and is recognized as an industry leader having been named a Philadelphia finalist for *Inc. Magazine*'s "Entrepreneur of the Year" award as well as one of the "25 Most Innovative Agents in America." Beyond Insurance is a consulting firm that offers leadership training, cultural transformation, and talent and tactical development for enlightened professionals who are looking to take their practice to the next level. Since 2007, the proven and repeatable processes of Beyond Insurance have transformed individuals and organizations as measured by enhanced organic growth, productivity, profitability, and value in the marketplace.