

Legal Issues Relating to Football Head Injuries, Part II
January 4th, 2010
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Good afternoon. My name is Vin Ferrara, and I am the Founder & CEO of Xenith, manufacturer of the X1 football helmet. I founded Xenith in 2004, with the mission of addressing the concussion issue through a blend of innovation and education. Prior to founding Xenith, I played quarterback at Harvard, and attended the medical and business schools at Columbia University.

I realize that head protection is only one part of a complete strategy, in which education, technique, rule enforcement, injury management, and cultural changes are paramount. We don't market our helmet as concussion proof, and we work tirelessly to prevent it from being used as a weapon. Xenith was one of the first sponsors of the Sports Legacy Institute and Boston University research on chronic traumatic encephalopathy, and for every helmet sold, Xenith will donate a dollar to concussion research through the National Athletic Trainers' Association. **I understand this problem, and I care about solving it.**

At the last congressional hearing, hours were spent discussing and criticizing the NFL concussion committee's research. However, we were also told that this same committee would be doing even more research, this time on helmets. The issues are many.

The NFL's testing protocols, implemented under the direction of Dr. Elliot Pellman and Dr. David Viano, both former chairmen of the NFL's concussion committee, are based on a very small number of "exceptionally high velocity", illegal helmet to helmet impacts, that should never have happened in the first place. I estimate these 25 hits represent only .001% of a pool of impacts that likely caused thousands of undiagnosed concussive episodes, ignored in the NFL's research, from 1996-2001. Here is one video of this testing procedure, from our lab: <http://www.xenith.com/videos/Linear-Impactor.html>

As you can see it's an unrealistic simulation of an extreme event. Making standards around extreme events incentivizes design for the extreme, and not for what is likely to happen. This will make the actual problem worse. With regard to helmets, extreme tests warrant stiff, dense systems, in other words exactly what players have had for the past three decades. **More of the same won't solve the problem.**

When I say more of the same, understand that since the late 1980s the NFL has had a business relationship with Riddell, which has made helmets with vinyl nitrile foam padding since the late 1970s. Riddell is deemed the "Official Helmet of the NFL." NFL players are overwhelmingly steered towards Riddell helmets based on quotas that provide teams free goods, and no logos other than Riddell can be shown on helmets. If a player wears a non-Riddell helmet, the logos for that company need to be pried off, or covered up. I'm not an attorney, but I would ask the committee to investigate the legality of this arrangement with regard to anti-trust law.

The Riddell-NFL deal is not only legally questionable; it is ethically questionable. This deal limits player choice, stifles innovation, and influences the decisions made at the collegiate, high school, and youth levels. The NFL will tell you that it does not endorse Riddell helmets as the safest, but the average citizen would assume this must be the case. The NFL also has a strong incentive to hope and therefore espouse that Riddell helmets are the best. Any other suggestion would open up Pandora's box. The NFL doesn't want decades of players asking how this deal, which was just renewed in August 2009, might have affected their brain function.

Riddell's long relationship with the NFL plays a significant role not only in the helmet market, but also in the NFL's controversial helmet testing program. The machinery the league is using to test helmets was developed not only in response to a minimal number of extreme events, but also in large part by funding from Riddell, using Riddell helmets, at a lab listed as inventor on Riddell helmet patents, also the same lab leading the NFL's current helmet testing. When a test and a

product are developed together in a lab, they all go together in a complementary way. The product and tests are inextricably linked in a way that is almost indefinable, but also quite obvious. Therefore, the will and the means both exist to encourage more of the same. **More of the same won't solve the problem.**

I will tell you now, that there is no single lab test to determine "helmet safety." Lab data is just numbers generated by a machine that doesn't simulate a person, and no lab numbers are directly correlated to concussion risk. How can a helmet comparison be performed by discussing numbers from a lab, in the NFL's boardroom, without players? One thousand people might experience the same impact, and one thousand different outcomes will occur. A crash test dummy cannot tell you it has blurry vision, feels woozy, or has chronic headaches.

In fact, the measures being made in this testing are the same measures that Dr. Viano suggests in a 2003 conference publication, that I hold here, should be abolished in favor of other measures. The existing standard organization, NOCSAE, explicitly forbids numerical comparisons because it knows the numbers don't correlate to injury risk. Make no mistake, NFL equipment managers, and therefore college, high school, and youth programs, will make and already have made decisions based on numbers that don't mean anything. Do the NFL and the individuals responsible for this testing actually want these decisions, and the liability associated with them, on their plates?

We have offered as many helmets as necessary to do player based comparisons, but thus far, the NFL has shown no interest in this. By the NFL, I mean Dr. Elliot Pellman, longtime chairman of the NFL's concussion committee, and lead author on the NFL's concussion research publications, who maintains a role allowing him wide discretion over decisions about player safety.

Dr. Pellman's own website reads, *Dr. Pellman serves as the National Football League's Medical Advisor, advising the league on medical and health matters, supervising NFL health committees and as the medical liaison to the league's Clubs, Competition Committee, team physicians, and athletic trainers as well as the National Football League Players Association.* Dr. Pellman, essentially the league's singular voice on player safety, stated to a group of helmet manufacturers that gathering player data was "difficult to do and we need to do something quickly."

I should point out that I don't just disagree with the NFL attempting to do lab testing for comparative purposes, I disagree with any organization attempting to directly compare helmets in a lab for "safety." We need to let the free market, and an individual company's innovations and philosophies, develop without artificial restrictions. New helmet standards, that will be biased by those creating them, and may be created in a rush, will lead manufacturers to "design to the standard." Designing to the standard will hinder innovation, and will bring everyone to the same place, and we won't know if that is the right place to be.

This is not to say that testing standards are not important. We have used both the existing NOCSAE standard drop test, and the linear impactor, over the years in which we developed our helmet. We designed our technology to be deliberately more compliant and adaptive, to better address frequent low to medium energy impacts, and to provide equivalent protection to other helmets in the rare "big hits" that are now finally, thankfully, being penalized and fined. We think it is the right technology at the right time, and certainly not more of the same.

We have sold close to 15,000 helmets, and we've talked to players, parents, coaches, equipment managers, athletic trainers, and team physicians along the way. We like what we've heard so far, including from the NFL players wearing it. I have a stack of referrals here as well an article in

which Dr. Robert Cantu describes the X1 as “the greatest advance in helmet design in at least 30 years.”

If you are a player, or are in any way involved in player safety, talk to companies at length. There is too much at stake to rely on lab numbers, rumors, individual opinions, or anything other than a thorough collection of information. Find out how the company developed its technology, for what purpose, and if it achieves that purpose. If anyone tries to give you a short story or one graph based on a lab test, they probably don’t know what they are talking about.

I was told that by speaking out, I might be blackballed at the NFL. But how could I come here and not share information that needs to be shared? I understand that all businesses face competitive barriers, and I’m not here to seek any particular advantage. I am not here to become the official helmet of the NFL. I am not looking for an endorsement, and not interested in spending time attacking the NFL. I am looking for a level playing field, and not more of the same. **More of the same won’t solve the problem.**

In the hours of testimony at the last hearing, the refrain that stuck with me most was Roger Goodell’s stating “as long there are medical people involved, it’s fine.” As a medical person myself, I can say that simply having “medical people involved” does not make something fine. While most medical people are skilled and sincere, there are also those who sit on the sidelines, literally and figuratively, discussing and researching a problem, but never solving it.

There were medical people involved in tying Marc Buoniconti’s facemask down to his shoulder pad, putting his neck in an unsafe position before it was broken on the football field. Marc’s father Nick Buoniconti, Hall of Fame linebacker from the Miami Dolphins undefeated team, is on Xenith’s Board of Directors. He would have been here today, but he is holding a major hearing on spinal cord injury research, for which he and Marc have raised hundreds of millions of dollars. Nick asked me to deliver a message for him:

“The issue of traumatic neurological injury is the most important issue of our time. I speak for all players, current or retired, starter or reserve, Hall of Fame or unknown, when I say that I will not stand by quietly any longer while player safety is jeopardized by business as usual. I call on Roger Goodell to take control of this situation once and for all, instead of ceding responsibility to a committee with no track record of success.”

In this era of change, there is clearly still more to be done, and Roger Goodell, not a committee of medical people, needs to do it. Roger Goodell needs to end the NFL’s deal with Riddell, and end the era of NFL-sponsored concussion research. He must allow players the ability to make their own choices, not just for helmets, but for all equipment.

I am also offering my assistance to help Roger Goodell solve this major problem. I’ve had experiences over the course of my life that give me an understanding of this issue, beyond what can be generated in a lab or in the NFL’s boardroom. I’ve spent the last six years, and plan to spend the next sixty, devoted to addressing this issue. I’ll offer a unique perspective. **I won’t offer more of the same.**

I sincerely appreciate the invitation of Congressman Conyers and the House Judiciary Committee. This story is not just about Xenith; it is ultimately about innovation, and the government’s role in protecting and fostering it. For what protects football players today may one day protect other athletes, children, soldiers, first responders, and laborers. For what starts as a small company may one day grow into a large and responsible employer of many. I welcome your assistance, and look forward to helping you protect your constituents.