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## 10 Point Plan to Save Football

In the past few years, former football players have begun being diagnosed with Chronic Traumatic Encephalopathy (CTE), a progressive neurodegenerative disease caused by repetitive trauma to the brain which eventually leads to dementia. Some were famous NFL Hall of Famers like Mike Webster and Lou Creekmur. Others, like Mike Borich, only played through college. All died sooner than they should have, and all suffered terribly in their final years.

Since the discovery of CTE in 1928, the disease has been seen almost exclusively in boxers, which is why it is often referred to as “punch drunk” syndrome. However, it is now diagnosed regularly in ex-football players, and in the past year, the Center for the Study of Traumatic Encephalopathy at Boston University School of Medicine (CSTE) has diagnosed CTE post-mortem in 11 of 11 former college and professional football players that died at ages ranging from 37-82 years. This is significant, as the disease should not naturally exist in a single human being. The early stages of the disease have even been seen in an eighteen year-old former football player. In 2009, it is clear that football is in the midst of a brain trauma crisis.

The game of football has not always been played as it is today. In fact, the most consistent aspect of the game has been change. In 1905 the game was so dangerous, regularly killing participants, that President Theodore Roosevelt summoned the coaches of Harvard, Yale, and Princeton to Washington D.C. for a summit on how to make the game safer and threatened to take action in the absence of significant reform.

From this meeting the American Intercollegiate Football Rules Committee was created, and that Committee, among other things, legalized the forward pass and made other changes to eliminate dangerous collisions. Over and over, football has had to be changed to be made safer. Now it faces a new challenge. CTE is a deceptive, quiet killer. The disease begins during a player’s career and then hides, slowly killing brain cells until the athlete begins showing symptoms years later.

Football has evolved into a something it was never intended to be.

Football collisions may now be more dangerous for the brain than ever. With the combination of bigger, stronger, and faster players and hard-shelled helmets that are often used as a weapon to initiate contact, we’ve created a type of repetitive trauma to the brain that has never existed before.

The discovery of CTE inside the brains of so many ex-football players has shown us that it is again time for change, and a new Committee. Only this time, it is a Committee to Save Football. Among high school students, football is the most popular sport in America, played by one in eight American boys. While football was first played by colleges, today football is a children’s game, with 95% of participants under the age of 18.

These children are not old enough to make informed choices. Therefore, in light of the new evidence of CTE in 100% of players studied at Boston University, it seems appropriate that we again reevaluate how



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we play the game of football before the 2010 season and at all levels of play: youth, high school, college, and professional.

If we can agree that the game is broken and needs to be fixed, we have an incredible number of paths to a safer game **without fundamentally changing football**. If we know that practice collisions account for over 50% of brain trauma, the proposals below could easily eliminate over 75% of brain trauma and concussions today – it is simply a question of leadership.

Below are 10 paths to a safer game that can and should be used to reduce brain trauma. This would serve as the basis for evaluating the options available to the Committee to Save Football.

1. Reevaluate how the game is **practiced**
  - Greater than 50% of hits to the head occur outside of games. NFL teams rarely hit in practice due to risk of injury. Youth teams could only be allowed to have full-contact once a week. Dangerous drills could be banned or used less frequently.
2. Encourage mandatory brain trauma and concussion **education** for coaches, athletic trainers, parents, and athletes
  - Coaches, athletic trainers, and athletes cannot diagnose concussions if they aren't trained to look for them or know how to recognize them. Coaches, athletic trainers, and athletes will not voluntarily choose to rest concussions and reduce overall brain trauma if they don't understand why it is good for the athlete's short and long-term health.
3. Reevaluate **protective equipment**
  - Investigate changes to helmets, shoulder pads, and other types of protective equipment to reduce brain trauma.
4. Develop better methods of concussion detection and **diagnosis**
  - The CDC provides clipboards with concussions diagnosis protocols on the back at no cost. Coaches could be required to carry them. We can invest more in research to find simple, objective ways to diagnose concussion that can be utilized in any program.
5. Develop better methods of concussion **management**
  - Return-to-play too soon after concussion can result in more extensive brain damage, and can actually result in death. It is now law in Washington state that players are required to see a medical professional with brain trauma expertise before return-to-play. Minimum return-to-play standards should be enforced at all levels.
6. Consider minimum **medical resources**
  - Football is a dangerous game. Minimum medical resource standards, like having an athletic trainer or doctor on the sideline, should be considered.
7. Reevaluate **techniques** of tackling and blocking
  - We can teach and enforce different methods of tackling and blocking that minimize contact to the head.



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8. Reevaluate the **rules**
  - Recently the NFL banned the wedge on kickoffs to reduce trauma. Many other rules could be changed, at all levels of football, to reduce brain trauma.
9. Reevaluate **rule enforcement** and the role of **referees**
  - The NCAA recently began suspending players for intentional helmet-to-helmet hits. Referees could eject players for illegal hits to the head. Referees could be trained to identify concussed players on the field.
10. Reconsider the **culture** of the game
  - Television announcers could stop glorifying illegal hits. Children could stop being pressured to play through concussions.

The evidence now exists to support immediate and radical change to the game of football to dramatically reduce brain trauma. Let us not let this opportunity pass.

Respectfully submitted October 28, 2009.

A handwritten signature in blue ink that reads "Chris Nowinski".

Christopher Nowinski  
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