

PREVENTING CATASTROPHIC HEAD AND NECK INJURIES IN FOOTBALL

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Each time a player initiates contact with his head, he increases the risk of concussion. Each time a player initiates contact with his head-down he risks quadriplegia. Spearing has been shown to be an integral cause of head and neck injury. Injuries that occur as a result of head-down contact are technique related, and therefore are preventable.

For injury prevention, spearing should be defined simply as head-down contact. Following this concept, it is possible for a player to spear a member of his own team (e.g., Dennis Byrd). An unintentional spear (e.g., Reggie Brown) can result in catastrophic injury. Ball carriers, blockers and special teams players can spear. Limiting the concept of spearing to tacklers and the traditional "intentional attempt to punish an opponent" places players at greater risk of serious injury.

Although spearing has been banned since 1976, the incidence of head-down contact still occurs at an alarming rate (2-5). My research has found spearing occurs in 41% of the plays during a high school football game. Running plays accounted for 38% of the spearing incidents and kick returns accounted for 37%. Tacklers speared on 26% of the plays in my study and on 21% of the plays in another study (1). Ball carriers spearing occurred on 16-20% of the plays. It is safe to say there is plenty of room for improvement in reducing head-down contact.

Initiating contact with the shoulder while keeping the head-up is the safest contact technique for all positional players. Players seem to have learned to approach contact with their heads-up. However, this is only half of the battle. Players are still dropping their heads at the last moment before contact. I refer to this as unintentional spearing. It is instinctive to lower the head before contact to protect the eyes and face. Athletes must receive enough practice time to overcome this powerful instinct.

Every coach has a legal and moral obligation to his players to make sure they know, understand, and appreciate the risks associated with football and head-first contact. To understand this, formal team educational sessions should be held before contact begins and at the mid point of the season. Ideally a certified athletic trainer or a team physician should run these sessions. Topics to include are: mechanisms of head and neck injuries, related rules and penalties, the incidence of catastrophic injury, severity and prognosis of these injuries. Dr. Joe Torg's video "Prevent paralysis: Don't hit with your head" is an excellent vehicle to help educate your players. The players should sign attendance sheets at each session. Finally, on the high school level a similar session should be run for parents, since the athletes are minors.

It is imperative for coaches to teach correct technique throughout the year and put specific emphasis on it periodically during the season. They must design and run drills for all positional players that teach correct

contact techniques. For example, during a nine game season correct techniques should be emphasized before contact begins, before game 2, game 5, and game 7. The coaching staff should document practices that emphasize safe contact for each positional group. The weekly review of game films also presents the coaching staff with an excellent opportunity to give players feedback regarding their head position.

Every coaching staff should have a clear philosophy regarding the reduction of head-first contact. The head coach should convey this philosophy to the coaching staff with the same emphasis as offensive and defensive strategies. A common error is the teaching of face-first contact. Initiating contact with the facemask is a rules violation in high school and teaching it creates a liability nightmare in court. More importantly poor execution of this technique places athletes in the spearing position and at risk of paralysis. There is a fine line between initiating shoulder contact with the head-up and initiating face-first contact. But it must be clearly drawn regarding what is taught. It is crucial for the entire coaching staff to be on the same page regarding spearing and head-first contact. The issues are easily confused.

I firmly believe if paralysis is to be eliminated from football the definition of spearing must be expanded. The emphasis must shift from the number of spears that result in paralysis to the number of spears that are occurring in every game. No one has a greater impact on the contact techniques of football players than their coaches. It is up to the coaches to begin the final movement in football to eliminate the unintentional spear. To accomplish this, practice time spent on teaching safe contact techniques to all positional players must be increased. There are roughly 20 spears per team in a single game. Every coaching staff should aim toward keeping head-down contacts by their team to 5 or less. Reducing the injury mechanism further reduces the risk of serious injury. Ultimately there is nothing more important than making sure your players can walk away from every game, win or lose.

References:

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