

MECHANISM OF INJURY

In order to understand head and neck injuries in football players, you must first understand what causes them. The most common way this injury occurs is from spearing, that is leading with the head down and initiating contact with the crown of the helmet. Spearing was outlawed in 1976, but athletes will still go into a pile or make a tackle with the head down. This does not mean all injuries of this type are going to occur this way. The incidents of spearing were studied from the 1975 and the 1990 seasons in New Jersey. The study found that the incidents of spearing did not make a significant change.

It has been well documented that little force is needed to cause the cervical spine to fail when it is in perfect alignment in a segmented column, a running football player can possess as much as 1500 foot pounds of kinetic energy, where as, in laboratory tests, the cervical spine failure has been reproduced with as little as 150 foot pounds of kinetic energy. The question that comes to mind now is, on the field, do higher forces on the field compensate for less than perfect positioning on the cervical spine.

Each time a player initiates contact with his head, he risks a concussion or even worse. Each time a player initiates contact with the crown of his helmet, he risks the possibility of quadriplegia. We can coach the athletes in the proper way to initiate contact, but they are still going to go in with their head down, usually making contact with the neck somewhere between extension and flexion.

PROTOCOL FOR HEAD AND NECK INJURIES

When and if head and/or neck injuries occur, proper technique is required in making the athlete as comfortable as possible, whether or not the equipment is left on or taken off. The first step in the process of evaluating the injured athlete is the mini neurological exam. The head should not be moved and one does not remove the helmet as a first maneuver. If a cervical injury has occurred, the helmet can be used as a traction device while the athlete is being removed from the field.

In order to get to the airway, if needed, the face mask will need to be removed. The easiest and safest way to remove the face mask is to cut the plastic clips on the sides and swing the mask out of the way. Everything from bolt cutters to portable screw drivers have and can be used to remove the clips. As athletic trainers, we have found it easier and faster to cut these clips that secure the face mask to the shell. The reason behind this is that the hardware that secures the clips to the shell has a tendency to rust together from the athletes' sweat or from practicing or playing in games when it rains. When cutting the clips, the ideal way is for the clips to come off in a manner that the face mask will not catch on the burr caused by the cut.

***Note:** For further information pertaining to policies on injuries, please visit the UIL website at: www.uil.utexas.edu. Click on Athletics. Click on [Head Injury Information from Parent Information Manual](#).