

## The Chiropractors' Role in Reducing Catastrophic Football Injuries

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Every doctor of chiropractic has the basic skills to help protect athletes from suffering catastrophic head and neck injuries in football. I have officiated football for 10 years and many football injuries I've observed could be prevented through education of the athlete, coaching staff, and administrators. Doctors of chiropractic need to become involved in this education. Armed with the knowledge each of us has of spinal mechanics and our inherent interest in maintaining the health of athletes, we can take an active role in preventing injury through education.

In 1990 no direct fatalities occurred, the first year since football injury research records were tabulated in 1931. There were three direct fatalities in 1991: all occurred during tackling or blocking plays and were secondary to head injuries. There were also four indirect deaths in football in 1991 (three high school and one college) related to heart failure.

The May 1992 National Federation News stated, "An all out effort must be made to keep these figures low and to strive for the continued elimination of football fatalities." The guidelines set forth in that article include many areas where the doctor of chiropractic can help.

It is well-documented that the majority of catastrophic football injuries occur secondary to axial compression of the cervical spine. This mechanism of injury occurs when a player drops the head when tackling or blocking an opponent. This flexes the cervical spine and the cervical lordosis is flattened, bypassing the shock absorbing capacities of the spine and the associated muscles and ligaments.

The education begins with the player. Each time a football player is seen in your office take a moment to educate the player on how serious spinal injury occurs in football. Encourage the athletes to keep their head up during contact and tell them not to use the helmet as a point of primary contact. Make sure your athletes are performing exercises to strengthen and condition the muscles supporting the cervical spine. Impress upon the football player the need to work hard and pay close attention during tackling and blocking drills.

A meeting with the athletic director (AD) and coaching staff may be helpful. At this meeting, cover what you wish to speak about at the players' meeting. This is also a good opportunity to meet the coaching staff and to exchange information.

If you are qualified, you may help them with setting up plans to encourage safety. Ask if they have a set plan for a catastrophic injuring during practice. There are usually services available at games but not at practice. Help them to establish a plan of care for a serious injury during practice. Help the coaches to understand some of the signs of serious injuries. Discuss the signs and symptoms of increasing intracranial pressure, spinal instability secondary to trauma, and heat injuries.

Remember to use terms that they understand.

This is a good time to discuss a neck strengthening programs also. Most coaches will already have a plan in place, but you may be able to help improve their plan. Check to see that flexibility

exercises are also included.

If you have training in fitting helmets, you may offer to help during the issuance of equipment by checking helmet fit. I would also recommend having posters made for the locker room with "safe" themes. Suggestions include;

1. Keep your head up
2. Protect your neck
3. Don't initiate contact with your helmet
4. Keep the head out of football

The education of the players and their parents can be incorporated into a pre-season meeting. The high school may already have one for discussing insurance, team rules, etc., and a "Safe Football" meeting could be incorporated at this time.

Offer to present a "Safe Football" meeting. Approach the athletic director (AD) from the standpoint of educating athletes and decreasing liability through informed awareness of the risks associated with playing football. Be sure the AD and coaching staff know that you are an ally and you are not going to be antagonistic in your approach. Outline for the AD what you would like to present.

The primary focus of the "Safe Football" meeting should be on keeping head contact out of football and helmet safety. All helmets are certified by NOCSAE (National Operating Committee on Standards for Athletic Equipment) and each football helmet must have a sticker attached making the athlete aware of the risks of football. This sticker states, "Warning. Do not strike an opponent with any part of this helmet or face mask. This is violation of football rules and may cause you to suffer severe brain or neck injury, including paralysis or death. Severe brain or neck injury may also occur accidentally while playing football. No helmet can prevent all such injuries. You use this helmet at your own risk." This statement should be read to each player prior to initiating the contact portion of the season. The purpose of the statement is to instruct players that by just wearing a helmet their safety is not insured.

#### Safe Football Team Meeting Topics

1. Read the helmet warning label and explain its importance
2. Discuss how serious injury occurs (typically tackling with the head down)
3. Tell the athletes to keep their heads up
4. Tell the athletes to avoid initiating contact with the head during blocking and tackling
5. Tell the athletes to be attentive during blocking and tackling drills
6. Help the athletes to understand that football does not need abusive contact
7. Review neck strengthening exercises

8. Encourage both the players and parents to use good sportsmanship
  
9. Teach the athletes that if they are injured and especially if they feel dizzy, are disoriented, nauseated, or have a headache to tell the coach, trainer, or doctor.

Nothing less than an all-out effort by everyone involved with football is acceptable in protecting the health of our young athletes. If each doctor of chiropractic would implement these ideas at the local level we may be able to help prevent a serious injury from occurring.

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