

# Shared Responsibilities in Reducing Sports Related Injuries

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Participation in sports requires an acceptance of risk of injury. **Athletes rightfully expect that those who are responsible for the conduct of sports have taken reasonable precautions to minimize the risk of significant injury.** Periodic analysis of injury patterns continuously leads to refinements in the rules and/or other guidelines.

However, **to legislate precautions via the rules books and equipment standards, while often necessary, is seldom effective in and by itself. To rely on officials to enforce compliance with the rules book is as insufficient as to rely on warning labels to produce behavioral compliance with precautionary guidelines. Compliance means respect on everyone's part for the intent and purpose of the rule or guideline, not merely technical satisfaction through some of its phrasing.**

Some sports-related maladies lend themselves readily to identification and solution (such as heat stroke and the administration of liquid freely during early football practice). However, other problems may be less clearly identified (such as head injuries), and solutions may be developed on selected assumptions and the premise that measurable standards are better understood than qualitative rhetoric (for example, purchasing a helmet manufactured in accordance with NOCSAE standards instead of "the best helmet possible"). Some problems continue because of questionable compliance with the legislated solutions (dental mouthguards, for example).

Using football head/neck injury prevention as an illustration with current significance, it is impossible, and should be unnecessary, to expect the game officials to examine each helmet of a squad before a game to ensure that each helmet has met the NOCSAE standard. **Respect for approved precautionary measures should ensure that only equipment required by the respective rules-making bodies is available to be worn.**

Optimal effectiveness, moreover, will come only from the athletes' informed compliance with all basic principles of head/neck injury prevention. **The Committee therefore encourages football coaches to discuss the following information with their teams at the onset of the season, and then to remind them of the essentials periodically during the season:**

**1. Serious brain and neck injuries leading to death, permanent brain damage or quadriplegia (extensive paralysis from injury to the spinal cord at the neck level) occur in football.** The toll is relatively small but persistent, averaging 1.44 fatal or severe, nonfatal brain or spinal cord injuries annually for every 100,000 players. **HELMETS DO NOT PROTECT THE NECK, and none of these injuries can be completely prevented**

**due to the tremendous forces occasionally encountered in football collisions; but they can be minimized by manufacturer, coach and player compliance with published rules of play, proper coaching, and in the case of head and brain injuries, compliance with accepted equipment standards.**

2. The NOCSAE seal on a helmet indicates that a manufacturer certifies that it has complied with the NOCSAE standard. By keeping proper fit, by not modifying design and by reporting to the proper personnel any need for its maintenance, the athlete also is complying with the purpose of the NOCSAE standard.

3. **The rules against intentional butting, ramming or spearing the opponent with the helmeted head are there to protect the helmeted person much more than the opponent being hit. The athlete who does not comply with these rules is the candidate for catastrophic injury.** For example, no helmet can offer protection to the neck. The typical scenario of this catastrophic injury in football involves lowering one's head while making a tackle. **Among 49 catastrophic neck injuries which occurred while tackling in the 1977-89 period, 35 were recorded as tackling with the head down.** The momentum of the body tries to bend the neck after the helmeted head is stopped by the impact, and the cervical spine cannot be splinted as well by the neck's muscles with the head lowered as with the preferred "face up, eyes forward, neck bulled" position.

When the force at impact is sufficient, the vertebrae in the neck can dislocate or break, cause damage to the spinal cord they had been protecting and thereby produce permanent loss of motor and sensory function below the level of injury.

4. **Because of the impact forces in football, even the "face up" position is no guarantee against head or neck injury.** Further, the intent to make contact "face up" is no guarantee that position can be maintained at the moment of impact. Consequently, the teaching of blocking/tackling techniques that keep the helmeted head from receiving the brunt of the impact are now required by rule and by coaching ethics. **Coaching techniques that help athletes maintain or regain the "face up" position during the course of a play must be respected by the athletes.**

The preceding illustration covers only one significant problem in one sport. Other sports and other concerns within football can be similarly approached. Coaches should acquaint athletes appropriately with the risks of injury and the rules and practices they are employing to minimize the athlete's risk of significant injury while pursuing the many benefits of sport. The athlete and the athletic program have a mutual need for an informed awareness of the risks being accepted and for sharing the responsibility of controlling those risks.

### **Helmet Warning Statements**

In an effort to warn players of the risk of injury, the NOCSAE Board of Directors has

developed a warning statement, model adaptations of which are found on all football, baseball/softball batting and lacrosse helmets. The statements are a part of each standard and are intended to warn participants of the possibility of severe head or neck injury despite the fact a certified helmet is being worn. The helmet is designed to help protect the head. Neither football, baseball/softball batting, or lacrosse helmets can protect the player's neck.

**NOCSAE urges that the warning statement be shared with members of the football, baseball, softball and lacrosse squads and that all coaches alert participants to the potential for injury.** The wording of the warning statement as set forth in the NOCSAE standard is a general suggestion and may change from time to time.

### **Certified Helmets**

The work of establishing a football helmet standard begun in 1970. A test system was designed featuring a humanoid head instrumented to determine the degree of hazard experienced by the model relative to a severe brain injury criterion in football impact simulation. The NOCSAE test standard was published in 1973. Voluntary changes which have occurred in football helmet design include shell size changes, substitution of stiffer for softer materials, and more space for softer materials. Manufacturers immediately began making helmets that would pass the test standards. **Every player participating under either NCAA or National Federation football rules must wear a helmet in which the seal "Meets NOCSAE Standard" is permanently stamped on the outside rear portion of the helmet.**

The NOCSAE Baseball Batting Helmet Standard was published in 1981. It was designated as the baseball/softball batting helmet standard in 1983. Again, manufacturers began making helmets which met the test standards. Both NCAA and National Federation baseball rules, as well as most youth play organizations such as Little League, USA Baseball, ASA, and others, require the use of helmets which meet the NOCSAE standard beginning with the 1985 season. The National Federation softball rules also require certified batting helmets beginning with the 1985 season. The consumer can readily certified helmets as the seal "Meets NOCSAE Standard" is permanently stamped on the rear portion of each helmet.

A standard for the lacrosse helmet and face mask was published by NOCSAE in 1986. For specific information on the use of the helmet and face mask in compliance with rules-making bodies' directives, see the NOCSAE rules for lacrosse.

**NOCSAE has discontinued the practice of publishing a complete list of helmet manufacturer's models and the year they were put on the market.** The list was for the benefit of the consumer, but does not appear to be needed anymore. **The consumer can readily determine if a helmet has met the NOCSAE standard by the seal imprinted on the outside rear portion of the shell.**