



Helmet Removal Guidelines taken from the NFHS Sports Medicine Handbook, Third Edition.

The NFHS supports the recommendation and guidelines set forth by the Inter-Association Task Force for Appropriate Care of the Spine-Injured Athlete.

IMMEDIATE CARE OF SUSPECTED SPINE INJURIES

- ❖ Any athlete suspected of having a spinal injury should not be moved and should be managed as though a spinal injury exists.
- ❖ The athlete's airway, breathing and circulation, neurological status and level of consciousness should be assessed
- ❖ The athlete should not be moved unless absolutely essentially to maintain airway, breathing or circulation
- ❖ If the athlete must be moved to maintain airway, breathing or circulation, the athlete should be placed in a supine position while maintaining spinal immobilization
- ❖ When moving a suspected spine-injured athlete, the head and trunk should be moved as a unit. One accepted technique is to manually splint the head to the trunk
- ❖ The Emergency Medical Services system should be activated

FACE-MASK REMOVAL

The face mask should be removed prior to transportation, regardless of current respiratory status. Those involved in the pre-hospital care of injured football players should have the tools for face mask removal readily available.

FOOTBALL HELMET REMOVAL

The athletic helmet and chin strap should only be removed

- ❖ If the helmet and chin strap do not hold the head securely, such that immobilization of the helmet does not also immobilize the head
- ❖ If the design of the helmet and chin strap is such that even after removal of the face mask the airway cannot be controlled or ventilation be provided
- ❖ If the face mask cannot be removed after a reasonable period of time
- ❖ If the helmet prevents immobilization for transportation in an appropriate position

HELMET REMOVAL

- ❖ Spinal immobilization must be maintained while removing the helmet
- ❖ Helmet removal should be frequently practiced under proper supervision
- ❖ Specific guidelines for helmet removal need to be developed
- ❖ In most circumstances, it may be helpful to remove cheek padding and/or deflate air padding to helmet removal

EQUIPMENT

- ❖ Appropriate spinal alignment must be maintained
- ❖ There needs to be a realization that the helmet and shoulder pads elevate an athlete's trunk when in supine position
- ❖ If the helmet is removed, then shoulder pads must be removed to ensure proper spinal alignment
- ❖ If the helmet is not removed, the front of the shoulder pads can be opened to allow access for CPR

This task force encourages the development of a local emergency care plan regarding the pre-hospital care of the athlete with a suspected spine injury. This plan should include communication with the institution's administration and those directly involved with the assessment and transportation of the injured athlete.

All providers of pre-hospital care should practice and be competent in all of the skills identified in these guidelines before they are needed in an emergency situation.

MORE ON HELMET REMOVAL

SIGNIFICANCE

Athletic participation carries with it the risk of catastrophic cervical injury. Because of the potential for permanent neurological injury and even death associated with cervical spine injury, proper on-field management is imperative to avoid further injury and catastrophic consequences. **Sports medicine professionals support the practice of not removing football helmets when there is even the slightest chance of cervical spine injury for the following reasons:**

1. The football helmet does not hinder proper immobilization techniques
2. The football helmet does not hinder the ability of the examiner to visualize facial and cranial injuries
3. The football helmet allows proper management and control of the airway during CPR
4. The football helmet will not tend to cause hyper flexion of the cervical spine in the presence of shoulder pads

RECOGNITION AND MANAGEMENT

- ❖ Any suspected head and/or spine injury should be attended to with the helmet left on the athlete
- ❖ If in doubt, **DO NOT REMOVE HELMET**
- ❖ Each institution should develop a venue specific emergency plan for the pre-hospital management of the spine-injured athlete, including:
 1. A uniform understanding when and when not to remove the helmet
 2. Established procedures, periodically practiced and reviewed, in proper spinal immobilization and in summoning emergency care (Also see NFHS Guidelines for Emergency Planning)
 3. Assurance that an athletic trainer or coach carries on their person a face-mask removal tool such as a screwdriver, power screwdriver, Trainer's Angel™, FM Extractor™, or a modified anvil pruner. A backup removal tool should also be on hand if a screwdriver is the first tool of choice

HELMET REMOVAL IN OTHER SPORTS

It is recommended that each situation be treated individually and held to the same criteria for determining the removal of football helmets. In all cases it is recommended that the helmet be left on during pre-hospital management of the spine-injured athlete, unless:

- The helmet is not form fitted to the head, such that the head is able to move within the helmet and is not provided adequate immobilization
- The design of the helmet does not allow for airway control even after the face mask is removed
- The face mask is difficult to remove and cannot be done in a reasonable amount of time
- The helmet does not allow immobilization in a safe position for transportation

RECOMMENDATIONS FOR INJURY PREVENTION

- Instruct coaches in proper helmet techniques
- Educate coaches, athletes, administrators and parents on wrongful, improper use of helmets, i.e., spearing, head blocking, tackling, etc. The head should never be used as the initial contact point when blocking or tackling
- Engage in proper on-field management of spinal injuries (i.e., a downed athlete should be aided only by designated medical personnel and not by other athletes)
- Adopt the recommendations and guidelines established by the Inter-Association Task Force's for Appropriate Care of the Spine Injured Athlete
- Part of the Emergency Plan should be to regularly practice helmet removal, log roll and other appropriate procedures possibly necessary in managing suspected cervical spine injury.

REFERENCES

- Kleiner DM. New guidelines for the appropriate care of a suspected spine injury. *Athletic Therapy Today*. 1998; 3: 50-51
- Kleiner DM, Almquist JL, Bailes J, et al. Prehospital care of the spine injured athlete. *National Athletic Trainers' Association*; 2001. <http://www.nata.org/spineinjuredathlete/main.htm>
- Mueller F, Cantu R. 25th Annual Report 1982-2007. *National Center for Catastrophic Sports Injury Research*; Chapel Hill, NC. 2008
- Mueller F, Blyth C. An update on football deaths and catastrophic injuries. *The Physician and Sportsmedicine*. 1986; 14: 139-142
- National Collegiate Athletic Association. Guideline 4e: Guidelines for helmet fitting and removal in athletics. 2008-2009 *NCAA Sports Medicine Handbook (19th Edition)*. 2008: 97-99
- National Athletic Trainers Association: Spine Injury Management Kit Release 1.0 (Human Kinetics)