Sports-Medicine Experts Debate Helmet Removal

By Jeffrey W. Wimer, MS, ATC, EMT

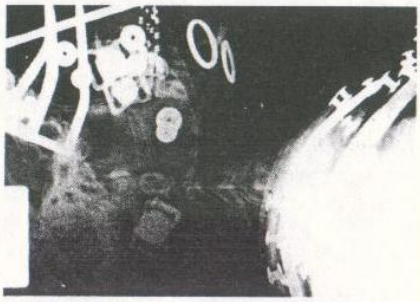
What do you do when an athlete is injured during a football game or other competition in which helmets are worn?

You likely remove the helmet to examine the patient.

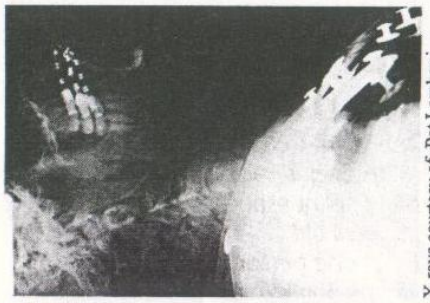
But many sports-medicine professionals are discouraging this practice in the prehospital setting.

Support for leaving the helmet in place in patients with suspected cervical-spine injuries has been voiced by members of the National Athletic Trainers Association, a 19,000-member group based in Dallas. Additionally, many state-level athletic trainers have developed brochures that endorse leaving the helmet in place.

The Cramer Products Co., a leading sports-medicine supplier in Gardner, KS, has released a new video on sports-helmet removal, and it, too, endorses leaving the helmet on the athlete.



Lateral radiograph of cervical spine with a football helmet and shoulder pads present. Note the neutral alignment of the cervical vertebra.



X-rays courtesy of Pat Lamboni

Lateral radiograph of the cervical spine after the football helmet has been removed. Note the increase in hyperextension (approximately 20°).

Why the concern?

Helmet removal requires specialized training because of the problems posed by adjoining athletic equipment—primarily the shoulder pads. These pads change the angle of the head in relation to the neck when the helmet is off or has been removed (see radiographs above).

Unlike a motorcycle helmet—which isn't worn with pads, doesn't have a removable face mask and often must be removed in an emergency—a properly fitted sports helmet secures to the head snugly. Little motion of the head is possible because of the interior padding and chin straps. As such, the sports helmet shouldn't interfere with immobilization. Sports helmets are also designed for resuscitation efforts and shouldn't pose problems if airway access is needed.

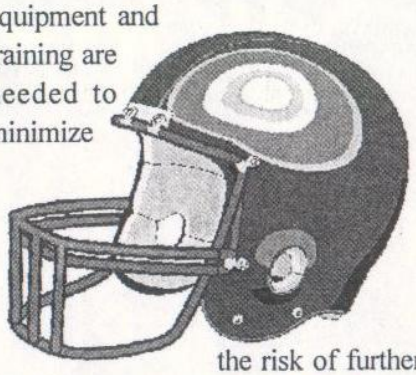
These factors have led athletic trainers to promote helmet removal in the

controlled environment of a hospital, not on the scene. Physicians can then use x-ray examination to rule out any suspected cervical-spine injury.

If you're providing coverage at a game, athletic trainers, who are responsible for the athletes' day-to-day care, will assist in immobilizing an injured athlete. They can demonstrate how to remove a helmet's face mask or access the player's chest if he's wearing chest pads and compressions are needed.

Keep communication lines open with athletic trainers, and work as a team. Talk with trainers before a new season starts so local protocols can be developed.

Providing field care for life-threatening sports injuries poses unique challenges. While the incidence of cervical-spine injury is low, special equipment and training are needed to minimize



the risk of further injury—and the potential for a lawsuit. You must take steps to ensure that you won't worsen a patient's condition. Improper helmet removal can cause further head and neck injury.

Jeffrey W. Wimer, MS, ATC, EMT, is an assistant professor of sports medicine and coordinator of clinical education for athletic-training students at the University of Charleston in West Virginia.