

## 7Y Helmet and Athletic Equipment Removal

### PATIENT CARE GOALS

- Using care, remove any headgear and protective equipment which may impede access to the trauma victim's airway and/or permit the application of spinal precautions<sup>1</sup>.

### EMT

#### Motorcycle Helmet Removal

While helmets offer protection for the head, they have not proven to reduce spine injuries. While their use is encouraged, helmets prevent airway access and complicate spinal immobilization. Because most full helmets do not hold the head firmly and also prevent cervical collar application, spinal immobilizing a helmeted patient does not result in effective cervical immobilization. Helmets must be removed prior to spinal immobilization on a long board to assure airway access and adequate spinal immobilization. In motocross events, look for neck braces and chest protectors that are attached by clasps and hinges that will also need to be removed.

#### MOTORCYCLE-STYLE HELMET REMOVAL PROCEDURE

*Step 1: Apply manual stabilization by placing hands on each side of the helmet with fingers on the mandible.*



*Step 2: Second EMT unfastens any straps while stabilization is maintained.*



*Step 3: Second EMT stabilizes the mandible at the angles with one hand, thumb on one side, fingers on the other side.*



*Step 4: Second EMT stabilizes the occipital base with the other hand, manually stabilizing the head and neck.*



*Step 5: First EMT removes helmet, allowing second EMT to readjust hand position under the occipital base to prevent head tilt. During removal:*

- 1. If the helmet provides full facial coverage, glasses must be removed first.*
- 2. Helmets are egg-shaped and must be expanded laterally to clear the ears.*
- 3. If the helmet provides full facial coverage, to clear the nose the helmet must be tilted **BACKWARD**. After nose clearance, tilt the helmet slightly forward, sliding it off.*



# HEALTHEAST MEDICAL TRANSPORTATION MEDICAL OPERATIONS MANUAL

## MOTORCYCLE-STYLE HELMET REMOVAL PROCEDURE (continued)

**Step 6:** After helmet removal, first EMT replaces hands on both sides of the head, resuming manual stabilization.



**Step 7:** Maintain manual stabilization until complete spinal immobilization is achieved.



### **Football helmet and pad set comments:**

When removing football helmets, shoulder pad sets must be also be removed to avoid immobilizing the neck in a hyperextended position. In some instances, the face mask alone may need to be removed first, either for immediate airway interventions or to facilitate helmet removal. In all cases, the coach or athletic trainer may prove a good source of information regarding the exact equipment needed for removal. For instance, many recently manufactured football helmets have air bladder systems designed so the helmet tightly fits the head; the coach or athletic trainer will be best able to release these air bladders.

## FOOTBALL HELMET FACE MASK REMOVAL PROCEDURE

Several different tools can be used to remove a football helmet face mask – the FM extractor, Trainer's Angel, knives, pruning shears, and PVC cutters. There are typically four plastic clips attached to the face mask and screwed into the helmet. A screwdriver should be utilized only as a last resort. Unscrewing these face mask clips may cause excessive head movement if the screws have been in place for some time and are rusted. Medic shears and seatbelt cutters are not recommended as these tools have been shown to take excessive time to work.

**Step 1:** Manually stabilize the head and spine. Remove the mouthpiece.



**Step 2:** Second EMT cuts all clips that secure the face mask.



**Step 3:** Second EMT removes the face mask by lifting it straight off the helmet.



## DOCUMENTATION KEY POINTS

- Rationale for helmet removal and complications if any encountered.

## NOTES

<sup>1</sup> Helmets and protective athletic equipment prevents the proper application of spinal precautions. Additionally, these devices impair access to the trauma patient's airway in the event of deterioration. It is beneficial for the patient to have the equipment removed in the field by trained providers with sufficient resources rather than wait until in the Emergency Department.