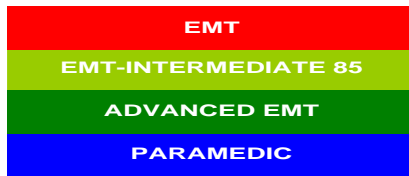




## EMS System for Metropolitan Oklahoma City and Tulsa 2021 Medical Control Board Treatment Protocols

Approved 9/9/20, Effective 1/15/21, replaces all prior versions






### PROTOCOL 17H: Helmet Removal



#### Motorcycle-style helmet comments:

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, spinally 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**

<p><i>Step 1: Apply manual stabilization by placing hands on each side of the helmet with fingers on the mandible.</i></p>		<p><i>Step 2: Second EMT unfastens any straps while stabilization is maintained.</i></p>	
<p><i>Step 3: Second EMT stabilizes the mandible at the angles with one hand, thumb on one side, fingers on the other side.</i></p>		<p><i>Step 4: Second EMT stabilizes the occipital base with the other hand, manually stabilizing the head and neck.</i></p>	
<p><i>Step 5: First EMT removes helmet, allowing second EMT to readjust hand position under the occipital base to prevent head tilt. During removal:</i></p> <ol style="list-style-type: none"><li><i>1. If the helmet provides full facial coverage, glasses must be removed first.</i></li><li><i>2. Helmets are egg-shaped and must be expanded laterally to clear the ears.</i></li><li><i>3. If the helmet provides full facial coverage, to clear the nose the helmet must be tilted <b>BACKWARD</b>. After nose clearance, tilt the helmet slightly forward, sliding it off.</i></li></ol>			



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### PROTOCOL 17H: Helmet Removal, (cont.)

#### 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.



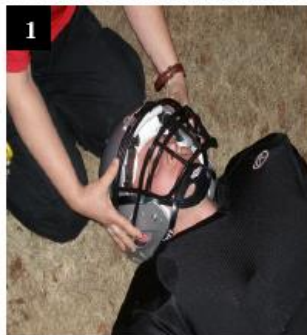
#### Football helmet and pad set comments:

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.





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### PROTOCOL 17H: Helmet Removal, (cont.)

#### FOOTBALL HELMET & PAD SET REMOVAL PROCEDURE

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



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



*Step 3: Second EMT removes ear pads by unsnapping them from inside the shell.*



*Step 4: If fitted with air bladder system, deflate the liner through the valve as pictured by using the needle of the inflation system to release air pressure at inflation points.*





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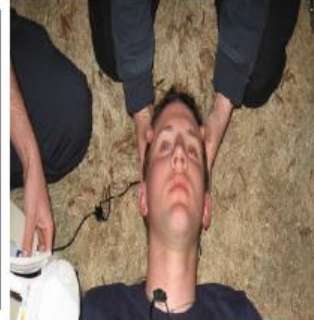
### PROTOCOL 17H: Helmet Removal, (cont.)

#### FOOTBALL HELMET & PAD SET REMOVAL PROCEDURE (continued)

*Step 5:  
Remove  
helmet  
utilizing  
technique  
for  
motorcycle-  
style  
helmets.*



*Step 6:  
Maintain  
neutral  
alignment  
of the neck  
while  
the shoulder  
pads  
are  
removed.*



*Step 7: Cut jersey  
away. Unfasten  
or cut the  
shoulder pads  
straps and laces.*





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**PROTOCOL 17H: Helmet Removal, (cont.)**

### FOOTBALL HELMET & PAD SET REMOVAL PROCEDURE (continued)

**Step 8:** Laterally unfold shoulder pads and slide out toward the first EMT. A third and even fourth EMT may be needed to support the back.



**Step 9:** Maintain manual stabilization until complete spinal immobilization



- *Techniques of Helmet Removal from Injured Patients, American College of Surgeons, Committee on Trauma, April 1997*
- *Training Medical Personnel in Techniques for Proper Motorcycle Helmet Removal, The Motorcycle Riders Foundation, September 2001*
- *Techniques and Equipment for Helmet Removal; Professional Sports Training, Green Bay Packers, EMSED.Com; November 2005*
- *Prehospital Emergency Care, 8<sup>th</sup> Edition, Copyright, July 2008*