

# Alternative Methods for Football Helmet Face Mask Removal

Leah A. Putman, MA, ATC

**R**emoving the football helmet face mask is the first step in providing emergency care for an athlete who requires rescue breathing or cardiopulmonary resuscitation (1,3,7,8). The literature and current practice in athletic training suggest using bolt cutters or a sharp instrument to remove the face mask and/or the face mask hardware (5,8,9). Considering the changes in the design of face masks and face mask attachments, a screwdriver or wire cutters provides a reasonable alternative for removing face masks.

The use of bolt cutters originated when the face mask itself was screwed to the helmet. The only method of removing the face mask, other than unscrewing it, was to cut the mask at several points. Now, the face mask is attached to the helmet with plastic clips. Several sports medicine practitioners have advocated using a sharp instrument to cut the plastic clips (5,8-10).

Cutting the plastic clips can be hazardous, because if the sharp instrument slips, it could cut the athletic trainer or the injured athlete. Even in practice situations, it is difficult to cut the clips without causing the instrument to slip. Also, it is difficult to cut the clips when they have aged, because the plastic becomes harder and less pliable as a result of exposure to the weather, sweat, and dirt.

## Alternative Methods

The plastic clips that attach the face mask to the helmet are screwed to the helmet. These clips, located near the helmet earholes, can be unscrewed or cut

and then removed to allow the face mask to be swung away from the face. This provides access for airway management for the injured athlete (7).

A regular or rechargeable electric screwdriver with the appropriate tip can usually be used to unscrew the metal hardware that attaches the plastic clips to the helmet. Sometimes, however, the metal hardware (the screw and the bolt on the inside of the helmet) rust together. When this occurs, unscrewing simply turns the inside bolt without loosening the screw.

A second method is to cut the plastic clips with a pair of electrician's wire cutters. The wire cutters then can be used to pull the clips out of the way, allowing the face mask to be swung away from the athlete's face.

It is advantageous to use either the screwdriver or wire cutters because a minimum of instruction time is necessary to learn and practice the task, and the chance of cutting the athletic trainer or the injured athlete is reduced. Both of these tools are readily available at a low cost, and both tools will fit into an athletic trainer's pocket or side pack along with a pair of scissors.

## Procedure

1. Correctly position the athlete on his or her back.
2. One athletic trainer must stabilize the

athlete's head and neck by securing the helmet. To do this, place the index fingers or thumbs in the helmet earholes and hold tightly (Fig 1).



Fig 1.—Stabilize the head and neck.

3. With the head and neck stabilized, another athletic trainer uses the screwdriver or wire cutters to free the face mask from the attachments next to the helmet earholes (Fig 2, Fig 3).
4. Free the face mask completely from its attachments to the helmet.
5. Swing the face mask away from the athlete's face for airway management (Fig 4).

## Conclusion

Regardless of the method chosen for face mask removal in an emergency, the following guidelines must be emphasized:

1. Acknowledge that potentially serious injuries can occur and make a plan to deal with serious injury. This must include securing the proper personnel and equipment to handle the injury and to

*Leah Putman is director of the Athletic Training Education Program at New Mexico State University in Las Cruces, NM.*



Fig 2.—Use the screwdriver to remove the plastic clips.



Fig 3.—Use the wire cutters to cut the plastic clips.



Fig 4.—Swing the face mask away from the athlete's face for airway management.

prevent further injury to the athlete (4).

2. Become familiar with all types of helmets that your teams use and learn how face masks are attached to the various helmets (2). Emergency procedures demand knowledge of the equipment.

3. The methods described here to remove the plastic clips should be understood and practiced, along with stabilization and transportation of the athlete.

4. Even if you choose to use the newer methods of face mask removal, bolt cutters need to be used on older single and double bar face masks (9), and should be readily available for sideline use (6,8).

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