

Journal of Athletic Training

Home For Journal For Authors For Reviewers For Readers For Subscribers For Students Help

Home > [Journal of Athletic Training](#) > [January/February 2008](#) > The Combined Tool Approach for Face Mask Removal During On-field Condi...

[Advanced Search](#)

National Athletic Trainers' Association Links

- [NATA Home](#)
- [Online Manuscript Submission and Review](#)
- [Advertising](#)
- [Facts & Figures](#)
- [Editor-in-Chief](#)
- [Journal Editors](#)
- [Editorial Board](#)
- [NATA Position Statements](#)
- [PubMed Central](#)
- [Search PubMed](#)
- [Contact Us](#)

[◀ Previous Article](#) [Volume 43, Issue 1 \(January/February 2008\)](#) [Next Article ▶](#)

 [Add to Favorites](#)  [Share Article](#)  [Export Citations](#)

 [Track Citations](#)  [Permissions](#)

[Full-text](#)

[PDF](#)

Article Citation:

Stephanie D. Gale, Laura C. Decoster, Erik E. Swartz (2008) The Combined Tool Approach for Face Mask Removal During On-field Conditions. *Journal of Athletic Training*; January/February 2008, Vol. 43, No. 1, pp. 14-20.

doi: 10.4085/1062-6050-43.1.14

Original Research

The Combined Tool Approach for Face Mask Removal During On-field Conditions

Stephanie D. Gale, MEd, ATC¹, Laura C. Decoster, ATC¹, and Erik E. Swartz, PhD, ATC²

¹New Hampshire Musculoskeletal Institute, Manchester, NH

²University of New Hampshire, Durham, NH

Abstract

Context: An effective approach to emergency removal of the face mask (FM) from a football helmet should include successful removal of the FM and limitation of both the time required and the movement created during the process. Current recommendations and practice are to use a cutting tool to remove the FM. Researchers recently have suggested an alternate approach that combines the use of a cordless screwdriver and a cutting tool. This combined tool approach has not been studied, and FM removal has not been studied in a practical setting.

Objective: To investigate the effectiveness and speed of using a combined tool approach to remove the FMs from football helmets during on-field conditions throughout the course of a football season.

Design: Randomized multigroup design.

Setting: Practice field of 1 National Collegiate Athletic Association Division II football college.

Patients or Other Participants: Eighty-four members of 1 football team.

Intervention(s): We used a battery-operated screwdriver for FM removal and resorted to using a cutting tool as needed.

Main Outcome Measure(s): We tracked FM removal success and failure and trial time and compared results based on helmet characteristics, weather variables, and the seasonal timing of the removal trial.

Results: Of the 84 players, 76 were available for data-collection trials. Overall, 98.6% (75/76) of FM removal trials were successful and resulted in a mean removal time of 40.09 ± 15.1 seconds. We found no differences in FM removal time throughout the course of the season. No differences in effectiveness or trial time were found among helmet characteristics, weather variables, or the timing of the

Volume 43, Issue 1
(January/February 2008)

[Next >](#)



[Current Issue](#)
[Available Issues](#)

Journal Information

Print ISSN 1062-6050

eISSN 1938-162X

Frequency Bimonthly:

January/February
March/April
May/June
July/August
September/October
November/December

Register for a Profile

Not Yet [Registered?](#)

Benefits of Registration Include:

- A Unique User Profile that will allow you to manage your current subscriptions (including online access)
- The ability to create favorites lists down to the article level
- The ability to customize email alerts to receive specific notifications about the topics you care most about and special offers

[Register Now!](#)

Related Articles

Articles Citing this Article

[Google Scholar](#)

Search for Other Articles By Author

- Stephanie D. Gale
- Laura C. Decoster
- Erik E. Swartz

Search in:

trial.

Conclusions: Combining the cordless screwdriver and cutting tool provided a fast and reliable means of on-field FM removal in this Division II setting. Despite the excellent overall result, 1 FM was not removed in a timely manner. Therefore, we recommend that athletic trainers practice helmet removal to be prepared should FM removal fail.

Keywords: [football injuries](#), [protective equipment](#), [emergency management](#), [cervical spine](#), [airway access](#)

Stephanie D. Gale, MEd, ATC, participated in conception and design; acquisition and analysis and interpretation of the data; and drafting, critical revision, and final approval of the article. Laura C. Decoster, ATC, and Erik E. Swartz, PhD, ATC, participated in conception and design; acquisition and analysis and interpretation of the data; and critical revision and final approval of the article.

Stephanie D Gale, MEd, ATC, New Hampshire Musculoskeletal Institute, 35 Kosciuszko Street, Manchester, NH 03101, e-mail: sdgale@gmail.com

Cited by

Erik E. Swartz, Keith Belmore, Laura C. Decoster, and Charles W. Armstrong. (2010) Emergency Face-Mask Removal Effectiveness: A Comparison of Traditional and Nontraditional Football Helmet Face-Mask Attachment Systems. *Journal of Athletic Training* 45:6, 560-569

Online publication date: 1-Nov-2010.

[Abstract](#) | [Full Text](#) | [PDF \(1752 KB\)](#)

Erik E. Swartz, Barry P. Boden, Ronald W. Courson, Laura C. Decoster, Mary Beth Horodyski, Susan A. Norkus, Robb S. Rehberg, and Kevin N. Waninger. (2009) National Athletic Trainers' Association Position Statement: Acute Management of the Cervical Spine-Injured Athlete. *Journal of Athletic Training* 44:3, 306-331

Online publication date: 1-May-2009.

[Abstract](#) | [Full Text](#) | [PDF \(3102 KB\)](#)

top ▲