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Original Research

Cheerleading-Related Injuries in the United States: A Prospective Surveillance Study

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Abstract

Context: Cheerleading injuries are on the rise and are a significant source of injury to females. No published studies have described the epidemiology of cheerleading injuries by type of cheerleading team and event.

Objective: To describe the epidemiology of cheerleading injuries and to calculate injury rates by type of cheerleading team and event.

Design: Prospective injury surveillance study.

Setting: Participant exposure and injury data were collected from US cheerleading teams via the Cheerleading RIO (Reporting Information Online) online surveillance tool.

Patients or Other Participants: Athletes from enrolled cheerleading teams who participated in official, organized cheerleading practices, pep rallies, athletic events, or cheerleading competitions.

Main Outcome Measure(s): The numbers and rates of cheerleading injuries during a 1-year period (2006–2007) are reported by team type and event type.

Results: A cohort of 9022 cheerleaders on 412 US cheerleading teams participated in the study. During the 1-year period, 567 cheerleading injuries were reported; 83% (467/565) occurred during practice, 52% (296/565) occurred while the cheerleader was attempting a stunt, and 24% (132/563) occurred while the cheerleader was basing or spotting 1 or more cheerleaders. Lower extremity injuries (30%, 168/565) and strains and sprains (53%, 302/565) were most common. Collegiate cheerleaders were more likely to sustain a concussion ($P = .01$, rate ratio [RR] = 2.98, 95% confidence interval [CI] = 1.34, 6.59), and All Star cheerleaders were more likely to sustain a fracture or dislocation ($P = .01$, RR = 1.76, 95% CI = 1.16, 2.66) than were cheerleaders on other types of teams. Overall injury rates for practices, pep rallies, athletic events, and cheerleading competitions were 1.0, 0.6, 0.6, and 1.4 injuries per 1000 athlete-exposures,

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Conclusions: We are the first to report cheerleading injury rates based on actual exposure data by type of team and event. These injury rates are lower than those reported for other high school and collegiate sports; however, many cheerleading injuries are preventable.

Keywords: [injury rates](#), [injury epidemiology](#), [trauma](#), [accidents](#), [athletes](#)

Brenda J. Shields, MS, contributed to conception and design; acquisition and analysis and interpretation of the data; and drafting, critical revision, and final approval of the article. Gary A. Smith, MD, DrPH, contributed to conception and design and critical revision and final approval of the article.

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