

Pediatric martial arts injuries presenting to Emergency Departments, United States 1990-2003.

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Although an estimated 6.5 million United States (US) children aged 6-17 practiced a martial art in 2004, there have been no nationally representative studies comparing pediatric injuries among the three most popular disciplines, karate, taekwondo, and judo. Describe pediatric martial arts injuries presenting to a representative sample of US Emergency Departments (EDs) from 1990 to 2003. We reviewed all martial arts injuries captured by the US Consumer Product Safety Commission's (CPSC), National Electronic Injury Surveillance System (NEISS). An estimated 128,400 children ≤ 17 years were treated in US EDs for martial arts-related injuries from 1990 to 2003. Injured tended to be male (73.0%) and had a mean age of 12.1 years. Most injuries were attributed to karate (79.5%). The most common mechanism of injury was being kicked (25.6%), followed by falling (20.6%) and kicking (18.0%). The majority of injuries occurred to the lower leg/foot/ankle (30.1%) and hand/wrist (24.5%). The most common injury diagnoses were sprains/strains (29.3%), contusions/abrasions (27.8%), and fractures (24.6%). Participants in judo sustained significantly higher proportions of shoulder/upper arm injuries than karate (IPR=4.31, 95% CI: 2.84-6.55) or taekwondo (IPR=9.75, 95% CI: 3.53-26.91) participants. There were also higher proportions of neck injuries sustained by judo participants compared to karate (IPR=4.73, 95% CI: 1.91-11.70) or taekwondo (IPR=4.17, 95% CI: 1.02-17.06) participants. Pediatric martial arts injuries differ by discipline. Understanding these injury patterns can assist with the development of discipline-specific preventive interventions.