

## Pediatric Facial Fracture

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Facial injuries in children always present a challenge in respect of their diagnosis and management. Since these children are of a growing age every care should be taken so that later the overall growth pattern of the facial skeleton in these children is not jeopardized. Pediatric trauma involving the bones of the face is associated with severe injury and disability. Although much is known about the epidemiology of facial fractures in adults, little is known about national injury patterns and outcomes in children in the US. The epidemiology of facial injuries in children and adolescents (ages 0 to 18 years) was described using the National Trauma Data Bank (2001 to 2005) to examine facial fracture pattern, mechanism, and concomitant injury by age. A total of 12,739 (4.6%) facial fractures were identified among 277,008 pediatric trauma patient admissions. The proportion of patients with facial fractures increased substantially with age. The most common facial fractures were mandible (32.7%), nasal (30.2%), and maxillary/zygoma (28.6%). The most common mechanisms of injury were motor vehicle collision (55.1%), violence (11.8%), and falls (8.6%). These fracture patterns and mechanisms of injury varied with age. Compared with patients without facial fractures, patients with fractures exhibited substantial injury severity, hospital lengths of stay, ICU lengths of stay, ventilator days, and hospital charges. In addition, patients with facial fractures had more severe associated injury to the head and chest and considerably higher overall mortality. Causes and patterns of facial fractures vary with age. Cranial and central facial injuries are more common among toddlers and infants, and mandible injuries are more common among adolescents. Although bony craniofacial trauma is relatively uncommon among the pediatric population, it remains a substantial source of mortality, morbidity, and hospital resource use. Continued efforts toward injury prevention are warranted. Facial fracture management is often complex and demanding, particularly within the pediatric population. Although facial fractures in this group are uncommon relative to their incidence in adult counterparts, a thorough understanding of issues relevant to pediatric facial fracture management is critical to optimal long-term success. Here, we discuss several issues germane to pediatric facial fractures and review significant factors in their evaluation, diagnosis, and management.

**Key words:** Pediatric facial fracture, complications, management, epidemiology, pediatric trauma