

intracranial subarachnoid or subdural hemorrhages ([Sieswerda-Hoogendoorn, Boos, Spivack, et al, 2012](#)).

Cerebral lacerations are generally associated with penetrating or depressed skull fractures. However, they may occur without fracture in small children. When brain tissue is actually torn with bleeding into and around the tear, more severe and prolonged unconsciousness and paralysis usually occur, leaving permanent scarring and some degree of disability.

Fractures

Skull fractures result from a direct blow or injury to the skull and are often associated with intracranial injury. Falls are the most common cause of head injury. Many of the falls that resulted in a skull fracture in children younger than 2 years old involved short distances less than 3 feet, such as falls from a caregiver's arms ([Ibrahim, Wood, Margulies, et al, 2012](#)).

The types of skull fractures that occur are linear, depressed, comminuted, basilar, open, and growing fractures. As a rule, the faster the blow, the greater the likelihood of a depressed fracture; a low-velocity impact tends to produce a linear fracture.

Linear skull fractures are a single fracture line that starts at the point of maximum impact but does not cross suture lines. Linear skull fractures constitute the majority of childhood skull fractures and typically occur in the parietal bone. Most linear skull fractures are associated with an overlying scalp hematoma, particularly in infants younger than 1 year old and in the parietal or temporal region ([Erlichman, Blumfield, Rajpathak, et al, 2010](#)).

Depressed fractures are those in which the bone is locally broken, usually into several irregular fragments that are pushed inward. Depressed skull fractures may be associated with direct underlying parenchymal damage and should be suspected when a child's head appears misshapen. Surgery may be needed to elevate the depressed bone fragment if there is an associated intracranial hematoma and if the depression is greater than 1 cm (0.4 inch).

Comminuted fractures consist of multiple associated linear