

extremity as an adult with a fracture.

Fracture injuries in children are most often a result of traumatic incidents at home, at school, in a motor vehicle, or in association with recreational activities. Children's everyday activities include vigorous play that predisposes them to injury, including climbing, falling down, running into immovable objects, skateboarding, trampolines, skiing, playground activities, and receiving blows to any part of their bodies by a solid, immovable object.

Aside from automobile accidents or falls from heights, true injuries that cause fractures rarely occur in infancy. Bone injury in children of this age group warrants further investigation. In any small child, radiographic evidence of fractures at various stages of healing is, with few exceptions, a result of **nonaccidental trauma** (child abuse). Any investigation of fractures in infants, particularly multiple fractures, should include consideration of **osteogenesis imperfecta (OI)** after nonaccidental trauma has been ruled out.

Fractures in school-age children are often a result of playground falls or bicycle/automobile or skateboard injuries. Adolescents are vulnerable to multiple and severe trauma because they are mobile on bicycles, all-terrain vehicles, skateboards, skis, snowboards, trampolines, and motorcycles and are active in sports.

A distal forearm (radius, ulna, or both) fracture is the most common fracture in children. The clavicle is also a common fracture sustained in childhood, with approximately half of clavicle fractures occurring in children younger than 10 years old. Common mechanisms of injury include a fall with an outstretched hand or direct trauma to the bone. In neonates, a fractured clavicle may occur with a large newborn and a small maternal pelvis. This may be noted in the first few days after birth by a unilateral Moro reflex or at the 2-week well-child check, when a fracture callus is palpated on the infant's healing clavicle.

## Types of Fractures

A fractured bone consists of fragments—the fragment closer to the midline, or the **proximal** fragment, and the fragment farther from the midline, or the **distal** fragment. When fracture fragments are separated, the fracture is **complete**; when fragments remain attached, the fracture is **incomplete**. The fracture line can be any of the following: