

allowed when the strength and range of motion of the affected extremity are equal to those of the opposite extremity or are demonstrated under conditions, such as sport-specific tests.

**Myositis ossificans** may occur from deep contusions to the biceps or quadriceps muscles; this condition may result in a restriction of flexibility of the affected limb.

Crush injuries occur when children's extremities or digits are crushed (e.g., fingers slammed in doors, folding chairs, or equipment) or hit (as when hammering a nail). A severe crush injury involves the bone, with swelling and bleeding beneath the nail (subungual) and sometimes laceration of the pulp of the nail. The **subungual hematoma** can be released by creating a hole at the proximal end of the nail with a special cautery device or a heated sterile 18-gauge needle.

## Dislocations

Long bones are held in approximation to one another at the joint by ligaments. A dislocation occurs when the force of stress on the ligament is so great as to displace the normal position of the opposing bone ends or the bone end to its socket. The predominant symptom is pain that increases with attempted passive or active movement of the extremity. In dislocations, there may be an obvious deformity and inability to move the joint. Children with naturally lax joints are more prone to dislocation of joints. Dislocation of the phalanges is the most common type seen in children, followed by elbow dislocation. In the adolescent population, shoulder dislocations are more common and dislocation unaccompanied by fracture is rare.

A common injury in young children is subluxation, or partial dislocation, of the radial head, also called *pulled elbow* or **nursemaid's elbow**. In the majority of cases, the injury occurs in a child younger than 5 years old who receives a sudden longitudinal pull or traction at the wrist while the arm is fully extended and the forearm pronated. It usually occurs when an individual who is holding the child by the hand or wrist gives a sudden pull or jerk to prevent a fall or attempts to lift the child by pulling the wrist or when the child pulls away by dropping to the floor or ground. The child often cries, appears anxious, complains of pain in the elbow or wrist, and refuses to use the affected limb. The practitioner