

fracture is present; passive range-of-motion exercises of the shoulder, wrist, elbow, and fingers are initiated at 7 to 10 days of age (Yang, 2014). Wrist flexion contractures may be prevented with the use of supportive splints. In dressing the infant, preference is given to the affected arm. Undressing begins with the unaffected arm, and redressing begins with the affected arm to prevent unnecessary manipulation and stress on the paralyzed muscles. Teach parents to use the “football” position when holding the infant and to avoid picking up the child from under the axillae or by pulling on the arms.

The infant with phrenic nerve paralysis requires the same nursing care as any infant with respiratory distress. Mechanical ventilation may be required to prevent further respiratory compromise.

The family's emotional needs are also an important part of nursing care; the family will need reassurance regarding the neonate's progress toward an optimal outcome. Follow-up is also essential because of the extended length of recovery.

Cranial Deformities

In a normal newborn, the cranial sutures are separated by membranous seams several millimeters wide. Up to 2 days after birth, the cranial bones are highly mobile, which allows them to mold and slide over one another, adjusting the circumference of the head to accommodate to the changing shape and character of the birth canal. The principal sutures in the infant's skull are the sagittal, coronal, and lambdoidal sutures, and the major soft areas at the juncture of these sutures are the anterior and posterior fontanel.

After birth, growth of the skull bones occurs in a direction **perpendicular** to the line of the suture, and normal closure occurs in a regular and predictable order. Although there are wide variations in the age at which closure takes place in individual children, normally all sutures and fontanel are ossified by the following ages:

Eight weeks: Posterior fontanel closed