



Dr. S. Matthew Hollenbeck, MD
Kansas Orthopaedic Center, PA
7550 West Village Circle, Wichita, KS 67205
2450 N Woodlawn, Wichita, KS 67220
Phone: (316) 838-2020 Fax: (316) 838-7574

Parent Information on Brachial Plexus Injuries



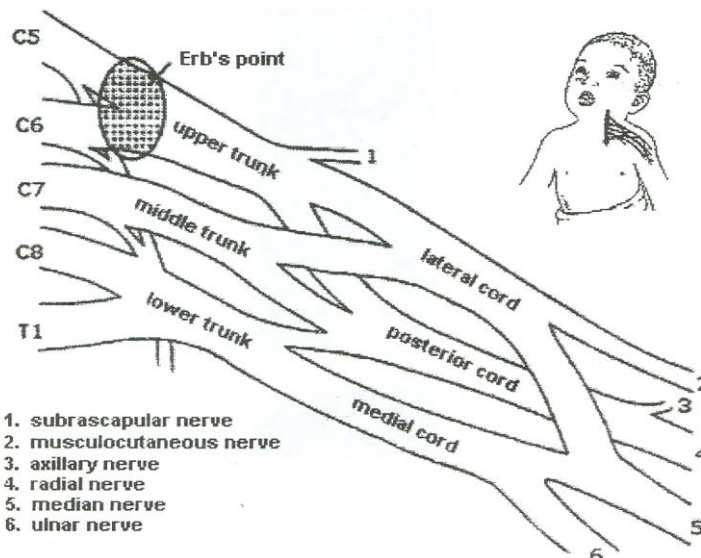
The brachial plexus is the bundle of nerves that runs from the spinal cord at the neck and shoulder region down the arm to supply messages to the muscles to make them work. The nerve bundle may be stretched when the head is being delivered especially if the baby's shoulder gets stuck on the mother's pelvic bone (shoulder dystocia). The injury can occur in about 1 in every 500 births or be caused by other factors.

Patterns of presentation are based on the location of the damage:

The most common site is in the upper cervical area (C5-6) and results in **Erb's Palsy** which has partial arm weakness- "waiter's tip" position.

The second most common type is **Duchenne's Palsy** which has complete arm palsy (C5-T1)

Klumpke's Palsy is the least common (C8-T1) type which has primarily hand weakness



Prognosis is directly related to the severity of the injury.

Grade 1: Nerves were traumatized by the stretch and may recover in the first four months.

Grade 2: Inside of the nerves were damaged but not the outside layer so nerves may regrow down the arm a rate of about one inch per month to reach the weak muscles.

Grade 3: Nerves may have been ripped apart, developed a ball of scar or been pulled away from the spinal cord. Recovery may require neurosurgical intervention.

**The severity and location of the injury may not be apparent initially so the doctors and therapists will watch closely for signs of recovery.

Why is therapy important? Children's Hospital-San Diego Occupational Therapists have lots of experience with arm problems especially children with Brachial Plexus Injuries. They have developed a special therapy program. Therapy is generally done 1-2 times per month with focus on parental education, family instruction in home program for proper positioning, exercises to maintain motion and prevent tightness, as well as, activities to encourage normal development of the child and maximize the use of the weak arm.