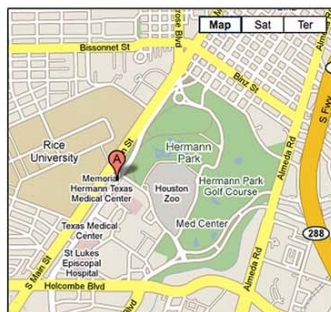


TEXAS NERVE & PARALYSIS INSTITUTE

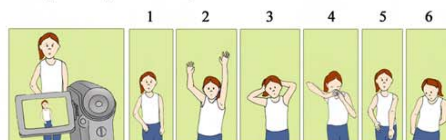
6400 Fannin St, Suite 2420
Houston, TX 77030

Email: drnath@drnathmedical.com
Website: www.drnathmedical.com
Toll-Free (866) 675-2200
Telephone (713) 592-9900



Creating a Treatment Plan for your Child (continued)

If you would like Dr. Nath to see your child in person, please call our office to make an appointment or sign up for one of his outreach visits to a city near you at: <http://www.drnathclinics.com>



Dr. Nath wants a video of arm movements.

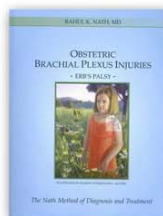
1) Arms at the side 2) Arms in the air 3) Hands behind head
4) Hands to nose 5) Palms upward 6) Hands behind back

Follow-up

Follow-up with Dr. Nath is done through therapist's reports, regular videotape mailings, and in person at his offices in Dubai and Houston. Your local pediatrician may be important for prescriptions and other referrals, but generally can be organized through our office.

For More Information

Nath RK (2006). *Obstetric Brachial Plexus Injuries - Erb's Palsy: The Nath Method of Diagnosis and Treatment*. College Station, TX: VirtualBookworm.com Publishing. (Available for purchase at: <http://www.amazon.com/gp/product/1589399706/>).



For More Information

Nath RK & Liu X. (2009). Nerve reconstruction of obstetric brachial plexus injury results in worsening of glenohumeral deformity: A case control study of 75 patients. *J Bone Joint Surg Br.* 91(B): 649-54.

Nath RK, Somadundaram C, Melcher SE, Bala M & Wentz MJ. (2009). Arm rotated medially with supination - the ARMS deformity: Description of its surgical correction. *BMC Musculoskelet Disord.* 10: 32.

Nath RK & Humphries AD. (2008). Computed tomography of the shoulders in patients with obstetric brachial plexus injuries: a retrospective study. *Annals of Surgical Innovation and Research.* 2: 4.

Nath RK & Paizi M. (2007). Improvement in abduction of the shoulder after reconstructive soft-tissue procedures in obstetric brachial plexus palsy. *J Bone Joint Surg Br.* 89(5): 620-626.

Nath RK, Melcher SE, Lyons AB & Paizi M. (2007). Surgical correction of the medial rotation contracture in obstetric brachial plexus palsy. *J Bone Joint Surg Br.* 89(12): 1638-44.

Nath RK & Paizi M. (2007). Scapular deformity in obstetric brachial plexus palsy: a new finding. *Surg Radiol Anat.* 29(2): 133-140.

Nath RK, Paizi M, Melcher SE & Farina KL. (2007). Upright MRI of glenohumeral dysplasia following obstetric brachial plexus injury. *Magn Reson Imaging.* 25(9): 1277-82.

Nath RK, Melcher SE & Paizi M. (2006). Surgical correction of unsuccessful derotational humeral osteotomy in obstetric brachial plexus palsy: Evidence of the significance of scapular deformity in the pathophysiology of the medial rotation contracture. *J Brachial Plex Peripher Nerve Inj.* 1: 9.

TEXAS
NERVE & PARALYSIS
INSTITUTE

OBSTETRIC BRACHIAL PLEXUS INJURY



DR. RAHUL NATH M.D.

ONE OF
"AMERICA'S TOP DOCTORS"
2001 - 2008

Medical Degree from
Northwestern University
Chicago, USA

Offices in: Dubai, UAE
Houston Texas, USA

Medical Licenses in Texas and Dubai

Dr. Nath

Dr. Rahul Nath specializes in surgery for patients suffering from nerve injuries, especially for children who have had brachial plexus injury or Erb's palsy injury during their delivery.

Dr. Nath has operated on several thousand patients during his 12 years in practice.

Dr. Nath has been named one of "America's Top Doctors" for 8 years, from 2001 to the present. He graduated from Northwestern University Medical School in Chicago, USA, and has practices in Dubai, UAE and Houston, USA.

Brachial Plexus and Erb's Palsy Injuries in Children

During the birthing process, babies may have difficult deliveries. This can cause stretching and tearing injuries of the nerves of the arm and hand. These are called "Brachial Plexus Injuries."

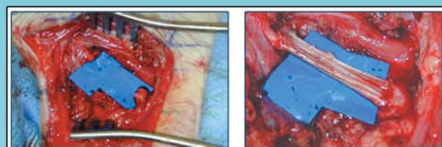
Over the past 12 years of my practice, I have cared for thousands of babies with this type of injury.

I have found that: (1) The nerve injury usually does not need to be repaired; it is most usually a stretch of the brachial plexus nerves. (2) Because the nerves are stretched at a time when the child is growing very fast, some muscles become very tight. (3) When the muscles become so tight, the bones can become twisted, leading to shoulder dislocation.

(1) Nerve Surgery (Nerve Grafting operation)

Although nerve surgery is not required in the majority of cases, if there is not full movement of the arm, shoulder and hand by 3 to 4 months, surgery may be recommended. Only about 5% of children will need nerve surgery.

If nerve surgery is needed, then either scar removal alone or direct repair, such as nerve grafting (see picture below), may be needed.



BEFORE

AFTER

After nerve repair surgery, the child is usually placed in a soft brace that holds the arm to the side for two weeks. Range of motion exercises should be performed every day on the elbow and hand, and physical therapy should be started again within two to three weeks after the surgery. Results of the surgery are usually seen within six to eight months and strength continues to improve over the next two to three years.

(2) Muscle Surgery (Mod Quad operation)

Muscle tightness in the armpit and chest area is very common among patients with Erb's palsy and other brachial plexus injuries. About 50% of children with Erb's palsy will have this tightness. The muscle tightness causes difficulty in lifting the arm over the shoulder.

The modified quad (Mod Quad) surgery is done from 6 months old to adulthood.

The Mod Quad surgery allows the arm to be raised over the head (see pictures below).

MOD QUAD SURGERY



BEFORE

AFTER



BEFORE

AFTER

(3) Bone Surgery (Triangle Tilt operation)

When the muscles in the arm become too tight, they can cause the bones of the shoulder to twist during growth. About 40% of children with Erb's palsy or brachial plexus injury will have bone problems of the shoulder. When the bones become twisted, the arm turns inward, becomes shorter, and the palm of the hand cannot be placed facing upward. Also, the elbow goes high to the side when the hand comes to the mouth. The shoulder can also then become dislocated.

The Triangle Tilt surgery is done from age 6 months to adulthood.

The Triangle Tilt surgery corrects these problems and also corrects the shoulder dislocation (see pictures below).

TRIANGLE TILT SURGERY



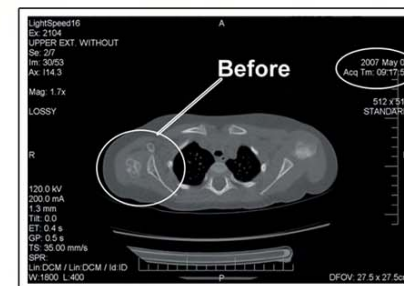
BEFORE

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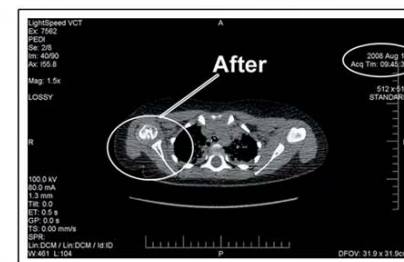


BEFORE

AFTER



DISLOCATED SHOULDER WITH JOINT DESTRUCTION



RELOCATED SHOULDER WITH JOINT REGENERATION

Creating a Treatment Plan for your Child

Please send a video of your child's range of movement along with any relevant medical records. Dr. Nath will be able to make a preliminary recommendation based on this information, and his recommendation will be more accurate if the video includes all required movements. He will also be able to tell whether further testing is required, such as a CT of the shoulder bones or EMG of the nerves.