

WHAT TO EXPECT ON YOUR VISIT

On your first visit to the Children's Mercy Hospital Brachial Plexus Clinic, your child could see all the specialists in our clinic, including the occupational therapist, nurse practitioner, rehabilitation doctor, and surgeon to look at your child's overall physical abilities. The team will discuss the injury history, prior tests that have been completed, and perform a physical assessment. We will discuss the results of the examination with you and your family and make recommendations for treatment and therapy. Our group will follow your child to ensure he or she reaches his or her best potential in recovery from the brachial plexus injury.

We will make every attempt to make your visit a short one; however, your visit may be longer if diagnostic studies or multiple physician evaluations are indicated. Please bring some books or favorite toys for your child and possibly a snack to make your visit more comfortable.

TO SCHEDULE AN APPOINTMENT

Please contact 816-234-3700 or 800-800-7300
For Occupational Therapy questions please contact Andrea Melanson, OTD, OTR at 816-234-3380

For medical questions please contact Thuy-Tien Dang, RN, FNP-C at 816-234-3970

For surgical questions please contact Angie Vanderpool, RN, CPNP at 816-234-3134

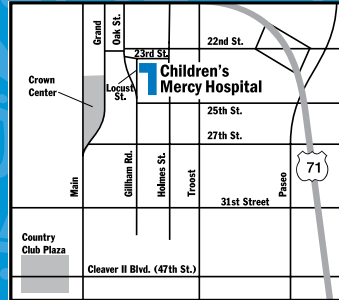
BRACHIAL PLEXUS REHAB TEAM MEMBERS

Robert Rinaldi, MD (rehabilitation)
Kevin Latz, MD (orthopedics)
Carolien DeRoode, MD (orthopedics)
Christine Cheng, MD (orthopedics)
Angie Vanderpool RN, PNP (orthopedics)
Thuy-Tien Dang, RN, APRN, FNPC (rehabilitation)
Andrea Melanson, OTD, OTR
Amy Kiser, OTR

CLINIC LOCATIONS

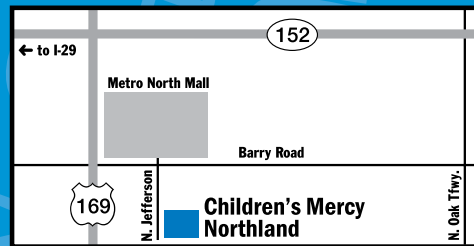
Downtown

1st Thursday morning of each month
Special Care Clinic
2401 Gillham Road
Kansas City, MO 64108



Northland

2nd Thursday of each month
Children's Mercy Northland
501 NW Barry Road
Kansas City, MO 64155
For more detailed directions refer to www.childrensmercy.org



2401 Gillham
Kansas City, Missouri 64108

CHILDREN'S MERCY

brachial plexus CLINIC

Department of Rehab Medicine
Department of Orthopedic Surgery
Department of Occupational Therapy
2401 Gillham Road
Kansas City, Missouri



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WHAT IS A BRACHIAL PLEXUS INJURY?

What is a Brachial Plexus Injury?

The term Brachial Plexus Injury (BPI) refers to an injury to the complex set of nerves that control the muscles of the fingers, hand, arm, and shoulder. The nerves originate at the spinal cord and are formed into 3 trunks located in the neck: the upper trunk from spinal cord segments C5 and C6, the middle trunk from segment C7, and the lower trunk from segments C8 and T1.

Terms used to describe a BPI include Erb's Palsy (an upper trunk injury), Klumpke's Palsy (a lower trunk injury), Brachial Plexus Palsy, Erb-Duchenne Palsy, Horner's Syndrome (when facial findings are present and one eye appears to not open all the way), and "Burners" or "Stingers" (usually associated with sports-related brachial plexus injuries). Torticollis is another term sometimes used in conjunction with brachial plexus injuries and occurs when there is a neck muscle imbalance or tightness in the neck muscles. Injuries to the Brachial Plexus can result in full to partial paralysis of one or both arms with a temporary or, when the nerve cannot completely heal, a lifetime injury. While compromising muscle function and the ability to grasp, extend, and reach with the affected limb, the injury can also affect physical appearance.



TYPES OF BRACHIAL PLEXUS INJURIES

There are five main nerves in the brachial plexus and your child's injury may involve one or more of these nerves. The nerves of the brachial plexus can be injured four different ways:

- Avulsion: the nerve is completely torn away from the spine.
- Rupture: the nerve is completely torn, but not where it attaches to the spine.
- Severe Stretch with Neuroma: Scar tissue has grown around the injury site, putting pressure on the injured nerve and preventing the nerve from sending signals to the muscles.
- Stretch: the nerve is injured but is not torn.

All four types of injury cause similar symptoms at first and therefore, it is difficult to know what type of injury your child has. Avulsions, ruptures, and severe stretch injuries will not heal on their own. Fortunately, simple stretch injuries are the most common type of injury to the brachial plexus, and these can heal on their own.

SURGICAL TREATMENT

In a small percentage of infants, a nerve graft or transfer may be indicated to improve the long-term outcomes. These surgeries are usually performed on infants between 4-9 months of age. Secondary surgeries may be performed to improve function and musculoskeletal development. These secondary procedures are individualized and are carried out on children of all ages.

We recommend that infants with brachial plexus injuries be seen in our clinic initially between 2-3 months of age. It is important to have at least 2 visits prior to six months of age to determine if your infant would benefit from nerve grafting or nerve transfer surgery.

For children and teens that sustain a traumatic brachial plexus injury such as from a car accident or sports injury, nerve transfer surgery can be helpful in providing best recovery. These children and teens should be seen within 3 months post injury by the surgeon.

THE IMPORTANCE OF THERAPY

Therapy is very important to strengthen partially denervated muscles and other compensating muscles to improve range of motion of the hand, arm, elbow, and shoulder. Therapy helps to minimize contractures and "freezing" of joints due to under use. As your child gets older, therapy will focus on developmental skills that require the use of both hands and teaching your child how to adapt to these activities as easily as possible. Some of these activities include tying shoes, buttoning clothing, and personal hygiene. Parental participation in therapies is necessary to ensure a prescribed regimen is maintained and steady progress is achieved.

We recommend that infants with brachial plexus injuries be seen in therapy between 2-6 weeks of age so we can show you exercises to help him or her feel more comfortable.

