Who We Are

A brachial plexus injury affects the system of nerves controlling the movement of the shoulder, arm and hand, and occurs when the nerves have been stretched or, in some cases, torn. An injury to one or more of these nerves can result in varying degrees of arm weakness or paralysis and numbness. Brachial plexus injuries often happen during birth, but can also occur when playing contact sports, or during a fall or auto accident.

The Brachial Plexus and Peripheral Nerve Clinic at Kennedy Krieger Institute is one of the few clinics in the country offering interdisciplinary services and innovative surgical and nonsurgical techniques for the treatment of brachial plexus and peripheral nerve injuries affecting infants, children and adults.

Who We Serve

We see pediatric patients who have, or are suspected of having:

- Neonatal (birth-related) brachial plexus palsy
- Nerve injury
- Traumatic brachial plexus palsy
- Acute flaccid myelitis
- Erb’s palsy
- Peripheral nerve tumors
- Idiopathic and other nerve conditions

Adults with a history of brachial plexus injuries may also benefit from our interdisciplinary approach to assessment and evaluation, designed to provide new treatment options for consideration. In many cases, these options can improve long-term impairments like stiffness, overuse and other damage that has occurred over time.

Our Approach

Evaluation: Because brachial plexus injuries could result in permanent impairments if not treated as soon as possible, early intervention is key to regaining function. Each patient is evaluated by an interdisciplinary clinical team that determines the extent of the injury and provides recommendations for treatment. This evaluation may include diagnostic imaging tests such as nerve conduction studies or X-ray, EMG, MRI or CT scans.

Treatment: After a comprehensive evaluation, each patient receives a customized treatment and therapy program designed to maximize nerve and functional recovery.

- Rehabilitation interventions include occupational therapy and physical medicine. We offer both traditional therapies and aquatic-based therapies. These rehabilitation therapies maximize the recovery and neurodevelopmental processes that lead to improved function and the development of adequate and efficient motor patterns.

Our Team

Our team of specialists provides interdisciplinary care combining the expertise of multiple medical and surgical clinicians to produce the best outcomes. The team is comprised of members from the following disciplines:

- Neurology
- Neurosurgery
- Nursing
- Occupational therapy
- Orthopedic surgery
- Plastic surgery
- Radiology

We are all born with great potential. Shouldn’t we all have the chance to achieve it?
• Orthopedic, plastic surgery and neurosurgery interventions vary, depending on the degree of functional impairment, the age of the patient and the potential for recovery, and could include:
  • Tendon transfers
  • Reconstruction or repair of affected nerves
  • Shoulder joint release
  • Nerve transfer

The surgical team will determine if and when surgical intervention is recommended, depending on the type and complexity of the injury.

Surgical Treatment for AFM

For children who have been diagnosed with acute flaccid myelitis (AFM), nerve transfer surgery is an option for improving function in an affected area. Our clinic offers evaluation for nerve transfer surgery by peripheral nerve surgeons at The Johns Hopkins Hospital.