

# Pediatric Physical Medicine and Rehabilitation (PM&R)

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At Cook Children's, Pediatric Physical Medicine and Rehabilitation (PM&R) allows us to care for physically and cognitively disabled children. Using a team approach, we help optimize the patients' complex medical care and provide more functional outcomes. Our objective is to enrich each child's quality of life and improve their abilities. We also concentrate on reducing the burden for caregivers, as we understand that managing the ever-changing needs of chronically ill and post-traumatic children can be challenging.

## How can we help?

- Cook Children's has a dedicated team of physical therapists, occupational therapists, speech-language pathologists, audiologists, neuropsychologists, equipment specialists, orthotists, prosthetists, social workers and specialized nurses who work together to formulate plans for patients to make improvements and maintain them.
- We track the child's progress throughout their therapies, modifying and adapting their program as they grow and improve.
- We will monitor for common complications associated with their diagnoses, including hip problems, scoliosis, bone fragility and fractures.

Ultimately, our goal is to relieve discomfort and improve the quality of life for patients and their families. We collaborate with nursing, therapists (PT, OT, SLP), neuropsychologists, Child Life specialists, orthotists and equipment manufacturers to offer a comprehensive approach to maximize the well-being of the patient and family.

## Commonly treated diagnoses include:

- Cerebral palsy
- Spina bifida and other spinal cord disorders
- Brain injuries
- Stroke
- Spasticity and hypertonia
- Dysphagia
- Musculoskeletal injuries
- Brachial plexus injuries
- Language and articulation problems
- Peripheral nerve injuries

## Pediatric Physical Medicine and Rehabilitation physicians specialize in the assessment and management of:

- Orthotics and prosthetics
- Therapies, including physical therapy (PT), occupational therapy (OT) and speech language pathology (SLP)
- Augmentative communication devices
- Medical equipment

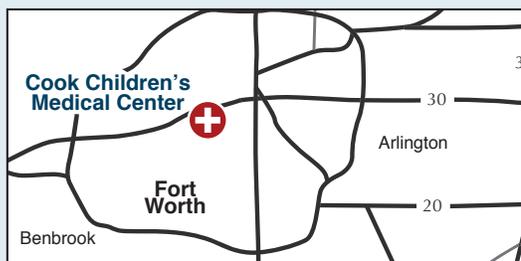
## Procedures include:

- Botox injections
- Baclofen pump management
- Trigger point injections
- Electrodiagnostic studies (nerve conduction studies, electromyography)

## Clinical pearls

**Children with spinal cord disorders typically have blood pressures lower than normal. If they are asymptomatic, there is no need to treat hypotension.**

- Children with spinal cord disorders are at risk for development of a syrinx, typically characterized by changes in their strength or functional abilities. Any of these changes should prompt rapid work-up, including advanced imaging (MRI) and referral to neurosurgery.
- Children with spinal cord disorders can be at risk for autonomic dysreflexia, a life-threatening condition characterized by hypertension and bradycardia. This is often triggered by painful stimuli, such as bladder distension, constipation or wounds.
- Children with brain injuries (including concussion) often struggle with sleeping, irritability, aggression, inattention and changes in appetite for months after their injury.
- Children with brain injuries (including concussion) should undergo neuropsychological assessments as they return to school to facilitate guidance with appropriate restrictions and accommodations.
- Non-ambulatory children are at high risk of non-traumatic fractures, hip dislocation and scoliosis. PM&R physicians screen children with various conditions and work with orthopedics when surgery is indicated.



### Cook Children's

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## Multidisciplinary clinics and collaborative efforts

- Spinal cord disorders clinic - for the treatment and management of patients with any congenital, acquired or traumatic spinal cord disorders. Treatment team includes specialists from Neurosurgery, Orthopedic Surgery, Urology, Physical Medicine and Rehabilitation, Psychology, Physical Therapy, Child Life and Orthotics.
- Cerebral palsy orthopedic clinic - for the treatment and management of patients with cerebral palsy and the associated long-term complications. Treatment team includes specialists from Orthopedic Surgery, Physical Medicine and Rehabilitation, Physical Therapy and Orthotics.
- Stroke clinic - for the treatment and management of patients with strokes or vasculitis. Treatment team includes specialists from Neurology, Hematology, Physical Medicine and Rehabilitation, Case Management, Research and Child Life.
- Inpatient transitional care unit - an intensive, therapy-based rehabilitation program for children with injuries or illnesses related to the musculoskeletal or neurologic system. Treatment team includes specialists from Neurology, Physical Medicine and Rehabilitation, Physical Therapy, Occupational Therapy, Speech Language Pathology, Psychology, Case Management and Child Life.

## Case study:

An 8-year-old boy was thrown from an all-terrain vehicle and sustained a severe head injury requiring craniotomy and resulted in significant cognitive impairment, dysphagia and right-sided paralysis. He was transferred to the inpatient rehabilitation setting, where he received 3+ hours of therapy per day, neuropsychological treatments and family training. Our medical team focused on improving his state of arousal with medications and treated his spasticity with oral and injectable medications. We also provided him with all the necessary equipment for a safe discharge home.

PM&R continued to follow in his care after discharge, initially ordering home-based therapies, school accommodations and titration of medications. Over time, he progressed to outpatient therapies promoting walking, cognitive skill growth and return-to-community activities. We continue to provide routine Botox injections and equipment appropriate for his progressing skill level, along with school recommendations and ongoing therapy modifications.