



Children's  
Specialized Hospital®

An RWJBarnabas Health facility



# Children's Specialized Hospital

Pediatric Inpatient Rehabilitation Programs and Therapies





## Welcome to Children's Specialized Hospital

Children's Specialized Hospital is the nation's leading provider of inpatient and outpatient care for children from birth to 21 years of age facing special health challenges - from chronic illnesses and complex physical disabilities like brain and spinal cord injuries, to developmental and behavioral issues like autism and mental health. At 13 different New Jersey locations, our pediatric specialists partner with families to make our many innovative therapies and medical treatments more personalized and effective so each child can reach their full potential.

## Our Mission

The mission of Children's Specialized Hospital is to be the preeminent provider of specialized healthcare services for infants, children, and young adults.

Our hospital is dedicated to improving the lives of patients through the delivery of superior medical services, in a safe and caring environment. Through a blend of innovative therapies, personalized attention, and compassionate support, our award winning doctors and skilled pediatric therapists strive to make a difference for children and their families each and every day.

## Pathways of Care

At Children's Specialized Hospital, we have customized care pathways for rehabilitation and habilitation that flow through multidisciplinary teams such as general rehabilitation, spinal cord, brain injury, infant toddler, chronic pain and chronic illness. You and your child will join one of these teams when you are admitted to Children's Specialized Hospital.

As we welcome you into our community, you will meet the professionals who will be part of your care team. They will explain the individualized care pathway that will guide you throughout your stay to safely discharge you home. The pathways for each team are evidence based and focused on your child's specific needs to meet their rehabilitation goals. Along with your team, you will help to establish a plan and participate in training for a safe and comfortable discharge. Children's Specialized is committed to partnering with patients and families by providing care and education through a multidisciplinary approach.





## Why is Inpatient Rehabilitation Critical for Recovery?

The choice for inpatient rehabilitation is best made as soon as possible at the acute care hospital or soon after a referral from your physician. There is a finite window of time after a traumatic injury, illness, or other life-changing condition, where therapy is much more effective and results are stronger. The benefits of inpatient rehabilitation are:

Regaining maximum functional ability to enhance social, emotional, and community integration

Individualized nursing and medical care during a fragile and necessary time

Necessary emotional support and encouragement for your child and family

Opportunities for children to socialize and interact with other patients and families

During an inpatient stay, your child will benefit from a multidisciplinary team approach including:

- 24-hour medical and nursing care
- Occupational therapy
- Recreational therapy
- Physical therapy
- Psychology services
- Child life services
- Speech therapy
- Educational resources
- Participation in a variety of leisure programs
- Nutrition and Pet therapy

## Why Choose Children’s Specialized Hospital?

Supported by unsurpassed outcomes and unparalleled patient feedback, our hospital specializes in providing a broad range of complex medical and rehabilitative care, with a comprehensive approach that is unmatched. Ongoing research pursuits ensure Children’s Specialized Hospital remains at the forefront of treatment methods and patient outcomes.

### Unsurpassed Outcomes

- Our inpatient rehabilitation program is significantly better than the national average in:
  - Daily functional improvements
  - Higher ability level upon discharge
  - Higher level of independence upon discharge

(Source: 2018 Uniform Data System for Medical Rehabilitation WeeFIM)

### Patient Feedback

“Everyone is so compassionate, patient and knowledgeable. They are always willing to go the extra mile for the families and have given me a sense of hope that I was looking for with my children.”

- Jessica Krill, Beachwood, NJ

“Children’s Specialized has helped me overcome one of the most difficult obstacles I have ever faced.”

- Patient, PSE&G Children’s Specialized Hospital

“Cooper wouldn’t be here today running and jumping if it weren’t for the amazing work being done at the hospital every day.”

- Jennifer Weil, Morristown





## Our Guiding Philosophy

At Children's Specialized Hospital our holistic approach ensures each patient, regardless of diagnosis, receives care that treats the entire child. As leaders in patient-and-family centered care, we employ parents of current or former patients. Our Family Faculty members understand that a partnership with our families is essential. As employees of the hospital, they are available to provide support and guidance during your stay.



## Our Rooms & Accommodations

Based on feedback from parents and families, each patient's room is a semi-private setting to ensure patients have the ability to interact with their peers and socialize during their stay. Each patient's room includes:

Flat-screen TV

Family sleeping accommodations

GetWellNetwork® an interactive communication tool



In addition to rooms and amenities, we have therapy and family oriented rooms to make your stay comfortable.

Game Rooms

Laundry Rooms

Playground

Playrooms

Family Showers and Bathrooms

Café

Dining Spaces

Recreation Room

Family Resource Centers

Classroom

Family Lounge

Lactation Room

Therapy Areas

Aqua Therapy Pool

Meditation Room

Kitchens

Outdoor Therapy Garden

Remote Patient Care Technology

Take a virtual tour of Children's Specialized Hospital at [www.childrens-specialized.org/virtualltour](http://www.childrens-specialized.org/virtualltour)



## Our Expert Rehabilitation Team



Advanced Practice Nurses	Registered nurses with advanced training coordinate and plan nursing care.
Audiologist	Provides comprehensive hearing testing services as needed.
Child Life Specialist	Provides comfort and procedural support to lessen anxiety from separation and hospitalization.
Family	Plays a pivotal role in partnership, care, and advocacy for their child.
Medical Doctors	Highly trained medical doctors and sub-specialists work with patients and families on treatment plans.
Neuropsychologist	Specializes in the assessment of brain function and behavior.
Nurses	Coordinate and plan nursing care; focus on special nursing and medical needs and provide family education.
Nutritionist	Plans customized menus, giving special attention to medical needs, feeding skills, food preferences, and family traditions.
Occupational Therapist	Focuses on social and play skills to improve development skills, hand-eye coordination, sensory processing, and self-care skills.
Patient Care Coordinator	Helps patients and families set goals and plan for the child's future.
Pharmacist	Dispenses and monitors all medications prescribed for patients and provides medication education.
Physiatrist (Physical Medicine and Rehabilitation Physician)	Medical doctors who specialize in physical medicine and rehabilitation.
Physical Therapist	Works with the patient to improve endurance, strength, mobility, and alignment for daily activities and play.
Psychiatrist	Consults with doctors, therapists, and families and evaluates whether medication is beneficial for patients with behavioral or emotional issues.
Psychologist	Assesses the patient and family level of coping and provides ongoing support and guidance related to child development, parenting and other family focused issues.
Recreational Therapist	Establishes a foundation on which children and teens build play skills and promote social and emotional development.
Rehabilitation Technologist	Provides patients with seating, positional equipment, and adaptive equipment.
Respiratory Therapist	Monitors patients who are dependent on tracheotomies, oxygen, or ventilators.
Screened Volunteers	Provide additional support throughout the hospital in areas such as: transportation, cuddling, and companionship.
Speech Pathologist	Focuses on enhancing speech development and assists with feeding issues.
Teachers	Help patients continue their education during their stay.



## **Our Programs**

Our inpatient programs are renowned for excellent medical and rehabilitative care and successful outcomes.

These programs include:

**Brain Injury Program**

**Burn and Wound Care**

**Chronic Illness Management Program**

**Chronic Pain Management Program**

**Infant and Toddler Rehabilitation Program**

**Multi-Complicated Trauma**

**Neonatal Abstinence Syndrome Program**

**Neuromuscular and Genetic Disorders**

**Post Surgical Orthopedics**

**Spinal Cord Injury**

# Brain Injury Program



## The Brain Injury Program treats conditions such as:

- Traumatic Brain Injuries (TBI)
- Cerebral Vascular Accidents (CVA)
- Brain tumor
- Hypoxia
- Anoxia
- Toxic injury
- Infection (i.e., encephalitis, meningitis)
- Late effects of cancer treatment
- Degenerative diseases
- Epilepsy
- Conversion disorder
- Other brain dysfunctions

## Our Specialized Care

When a child suffers a brain injury, the path to recovery is often a challenging one. The Brain Injury Program at Children’s Specialized Hospital provides young patients a broad range of complex medical care and rehabilitation therapy to recover from their injuries. We treat individuals who have acquired a brain injury through physical trauma (i.e., TBI, concussion) or medical condition that affects brain function.

## Our Individualized Approach

Upon admission to our Brain Injury Program, our team of specialists carefully evaluates and assesses the child’s neurological status, function level, nursing and medical needs as well as his or her motor function, speech, hearing and intellectual abilities. The team develops a customized rehabilitation program that focuses on the child’s medical, physical, cognitive, and psychosocial needs. A typical evaluation includes an assessment in the following areas:

General intellectual function/basic academic skills
Attention/working memory
Visual spatial processing
Language skills
Motor skills
Executive functions (i.e., planning, initiation, organization, mental flexibility)
Social-emotional functioning





A combination of individual and group therapies, psychostimulants, and gait training technology, such as the ZeroG® system, are implemented daily depending on the unique needs of each patient. As a part of the Brain Injury Program, each child is equipped with the tools and technologies to help him or her with seating and positioning, independent mobility, communication, daily activities, and computer access. During the child's stay, one-on-one tutoring or lessons in our inpatient classroom are provided by our certified teachers to help patients adapt and prepare to re-enter the classroom environment. The Brain Injury team is able to assist the family with home modifications and ready school staff for a return to the classroom upon discharge.



Through neurorehabilitation outpatient services at Children's Specialized Hospital, our experts are able to help our patients for five to 10 years post-trauma. In addition, we will arrange for vocational services and driver assessment and training, as necessary.

### Our Team

The Brain Injury Program is under the direction of a physician who is board certified in Pediatrics and Neurodevelopmental Pediatrics. All medical programs are under the supervision of the Chief Medical Officer and Section Chief of Inpatient Services.



### Our Outcomes

- Our inpatient traumatic brain injury program is significantly better than the national average in:
  - Daily functional improvements
  - Higher ability level upon discharge
  - Higher level of independence upon discharge

(Source: 2018 Uniform Data System for Medical Rehabilitation WeeFIM)



# Burn and Wound Care



## Our clinical teams are highly skilled in the rehabilitation of:

- Conditions resulting from antibiotic resistant bacterial infections
- Traumatic wounds with loss of cutaneous integument – represented by skin disruption and loss of subcutaneous tissues, loss of muscle, and bone
- Pressure sores
- Non-healing surgical wounds related to diabetes, poor nutrition, compromised immunity or infection

### Our Specialized Care

The comprehensive Burn and Wound Care Rehabilitation Program at Children’s Specialized Hospital treats children and adolescents ages birth to 21, suffering from complex burns and wounds. Through the combination of holistic therapies and expert medical care, the burn and wound care program at Children’s Specialized Hospital ensures comprehensive rehabilitation and the best quality care. As a part of the rehabilitation process, scar control remains a top priority while encouraging the most autonomy and functionality possible.

### Our Individualized Approach

Treatment in the comprehensive Burn and Wound Care Program includes wound surveillance, along with assessment of skin grafts and pressure mapping of wounds for effective scar management. The individualized approach to burn and wound care can include:

Daily medical management by physician and clinical team	Debridement
Physical therapy	Whirlpool treatment to aid in scar tissue healing
Occupational therapy	Advanced dressings, including specialized gel padding
Speech therapy	Child life services
Recreational therapy	Psychology
Fabrication of splinting equipment as needed	Stretching activities to improve functional abilities
Specialized compression garments with splinting	Gradual exposure to outdoors and heat to accommodate compromised systems



Through intensive therapies and innovative methods of continuous care, the Burn and Wound Care Program ensures each child and family is in constant communication and collaboration with multiple interdisciplinary teams. The plan of care for each patient is unique, but can include:

Nursing staff present on referring acute care burn unit to increase comfort level and allow for a comprehensive transition

Arranging follow-up visits upon discharge to referring physician and burn unit to continue monitoring during the healing process

Education for parents regarding the necessity of pressure garments to lessen extreme scarring and increase range of motion

### Our Team

The Burn and Wound Care Program is under the direction of a physician, who is board certified in Pediatrics and Physical Medicine and Rehabilitation. All medical programs are under the supervision of the Chief Medical Officer and Section Chief of Inpatient Services.



# Chronic Illness Management Program



The Chronic Illness Management Program is for adolescents and young adults with chronic medical conditions, such as:

- Diabetes
- HIV/AIDS
- Cystic Fibrosis
- Heart disease- Rheumatologic disorders
- Metabolic disorders
- Progressive neurologic conditions
- Chronic Respiratory disease
- Post-organ transplant
- Other chronic medical illnesses considered on an individual basis

## Our Specialized Care

The Chronic Illness Management Program at Children’s Specialized Hospital is a comprehensive inpatient program for adolescents and young adults who struggle to manage their condition. It provides the teen and family with a structured, comprehensive treatment plan to address medical, nutritional, psychological, and family communication issues. Since parents and caregivers have a crucial role in supporting their child’s health, we encourage parent/ caregiver participation in medical education, nutritional and psychological counseling sessions to ensure the greatest success.



## Our Individualized Approach

The Chronic Illness Management Program is typically a four week program that follows a multidisciplinary model and behavioral approach to care, that addresses the physical, emotional, and psychosocial needs of each patient. The goal for each adolescent is always to improve self-management of the disease. The behavioral approach includes:

- Direct instruction to develop new skills/knowledge
- Shaping of appropriate behavior
- Reinforcement of positive behaviors
- Experiential learning
- Generalization of skills across activities and settings
- Use of visual tools
- Medication education
- Structured nutritional counseling and instruction
- Supportive psychological counseling



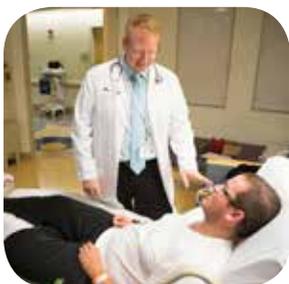
The treatment environment includes:

- Intensive and varied daily exercise
- Shopping/cooking experiences to promote good nutrition
- Multiple daily therapies/activities
- Outings to promote community reintegration
- Family education and counseling
- Psychological and educational testing, as indicated, to identify learning issues



Continuous glucose monitoring is available for diabetes patients, in combination with focus on gaining metabolic control. Together, this represents a powerful vehicle for making effective and informed changes in each individual's diabetes care.

At the conclusion of an inpatient stay, our expectation is that each patient is significantly more independent at managing his or her medical condition. A principal goal of the program is to ensure a healthy transition back into the community. This means we help patients work with their outpatient medical treatment team, school, and community-based agencies to ensure success once they return home.



### Our Team

The Chronic Illness Management Program is under the direction of a physician and is supported by a talented team of staff pediatric specialists, therapists, and consulting physicians. All medical programs are under the supervision of the Chief Medical Officer and Section Chief of Inpatient Services.

### Our Outcomes

- Our inpatient chronic illness program generates clinically and statistically significant improvement for:
  - Reducing the psychological burden of living with diabetes mellitus (33% improvement at discharge)
  - Improvement in Hemoglobin A1C and Fructosamine for diabetes mellitus patients sustained for 3 months post program
  - Improvement of general mental health (27% improvement at discharge)
  - Improvement of metabolic control of their chronic illness which has been sustained post-program.
  - Improvement demonstrated in other markers of disease in organ transplant, sickle cell anemia, renal failure, chronic asthma and other chronic illness.
  - Improvement in the patient's disease specific knowledge (28% improvement in University of Michigan Aptitude Test for Diabetes Knowledge)

• Statistically significant improvement in patient's self-reported status after CSH program completion for:

- Disease specific knowledge (76% improvement)
- Quality of life (76% improvement)
- Compliance with medical management of their disease (86% improvement)
- Amount of exercise (115% improvement)
- Nutritional knowledge (94% improvement)
- Depression scores (36% improvement)
- Improvement in parent's self-reported disease specific knowledge after program completion (56% improvement)

(Source: 2015-2017 CSH data and 2016 University of Michigan Aptitude Test for Diabetes Knowledge)

# Chronic Pain Management Program



**Our specialized team focuses on treating conditions such as, but not limited to:**

- Amplified Musculoskeletal Pain Syndrome (AMPS)
- Chronic Abdominal Pain
- Chronic Migraine Headaches
- Chronic Regional Pain Syndrome (CRPS)
- Fibromyalgia
- Postural Orthostatic Tachycardia Syndrome (POTS)
- Reflex Sympathetic Dystrophy (RSD)
- Reflex Neuropathic Dystrophy (RND)

## Our Specialized Care

The Chronic Pain Program at Children’s Specialized Hospital promotes the wellness of adolescents and young adults with chronic pain by teaching strategies to manage pain and encourage functional activity. The inpatient Chronic Pain Management Program is typically for children and adolescents with chronic pain who continue to have significant pain and difficulties with daily function despite a period of consistent outpatient therapies.

## Our Individualized Approach

This evidence-based program is typically over a four week period, with focus on regaining function and using one’s body in a normal way. The approach to treatment of chronic pain at Children’s Specialized Hospital includes intense physical and occupational therapy and integrated mental health intervention. Treatment may include:

Physical therapy	Recreational therapy
Occupational therapy	Child life therapy
Aquatic therapy	Parent education and support
Psychology	Patient Care Coordination

During the program, the child and family also participate in family psychoeducational support sessions to provide a better understanding of chronic pain and strategies for families to use to support the functionality of the patient.



The focus of the therapies in the Chronic Pain Management Program are to manage pain through:

Increasing endurance and strength

Patient/family education about effective coping strategies

Use of the affected parts of the body

Desensitization to reduce allodynia (pain from stimuli that typically does not cause pain, such as light touch or temperature change)

Additionally, recreation events for the patient and family encourage community reintegration, encourage appropriate peer interaction and social activities as well as assist in transition to home/community life. School tutoring is also provided on-site as needed. Our goal is for each child to return home to all normal activities, including school and extracurricular involvements, without any physical modifications.

## Our Team

The Chronic Pain Management Program is under the direction of a physician, who is board certified in Pediatric Physical Medicine and Rehabilitation, also known as Physiatry. The physician is supported by a talented team of staff pediatric specialists, therapists, and consulting physicians. All medical programs are under the supervision of the Section Chief of Inpatient Services and the Chief Medical Officer.

## Our Outcomes

- Patients in our chronic pain program experienced statistically significant outcomes in:
  - Decreased average patient pain level from admission to discharge, 6.6 to 3.9 on a 10 point scale, respectively.
  - Improvement in average lower extremity functional activity (LEFS) from admission (31.8 of 80) to discharge (61.7 of 80).
  - Decrease in average child report of functional disability (FDI-C) from 28.1 of 30 at admission to 9.4 of 30 at discharge. A lower score indicates better function.
  - Decrease in average parent report of child functional disability (FDI-P) from 28.4 of 30 at admission to 8.2 of 30 at discharge. A lower score indicates better function.
  - Increase in BOT-2 from admission (38.7) to discharge (50.4).
  - Improved school attendance: At admission, 10.8% of patients reported no absences due to pain. At 3 months follow-up, 83.3% of patients reported no absences due to pain.
  - Decrease in pain medication: 51.4% of patients were on pain medication at admission compared to 22.2% at discharge from the program. At 3 months follow-up, 20.0% of patients reached at follow up reported use of pain medication in the previous 2 weeks.
  - Observed decrease in the use of assistive devices from admission to discharge, 32.4% vs. 5.6% respectively. At 3 months after discharge, 15% of patients who were reached reported use of an assistive device.
  - At 3 months follow-up, 100.0% of parents reported no missed days from work due to their child's pain.
  - 90.0% of patients who were reached at follow up were following a home exercise program 3 months after discharge.

# Infant and Toddler Rehabilitation Program



As a part of the Infant Toddler Program, we treat the following conditions:

- Chronic lung disease or airway anomalies (ventilator dependent)
- Dysphagia or difficulty swallowing
- Chromosomal or genetic disorders
- Short Bowel Syndrome
- Total Parenteral Nutrition (TPN)
- Small bowel, heart, and other organ transplant
- Cyanotic Cardiac Disease
- Pulmonary Hypertension
- Hypoxic Ischemic Encephalopathy (HIE)
- Retinopathy Of Prematurity (ROP)
- Complications of prematurity
- Other medically complex conditions

## Our Specialized Care

The Infant Toddler Program at Children's Specialized Hospital provides intensive and comprehensive rehabilitation services for infants and young children ages birth to two years with complex medical needs. The program treats children who require all levels of pediatric care, including those who are medically fragile and technology dependent.

When an infant or toddler is admitted, our team of specialists complete a full evaluation and together, with the family, develop a customized rehabilitation program and plan of care. Our multidisciplinary staff is highly trained in working with children who require special medical care. Children with ventilator, tracheostomies, special feeding needs, and intravenous/central lines, can be managed while receiving rehabilitation therapy. Diagnostics and special services available for patients are ventilator assistance, weaning program, rehabilitation technology, orthotics and prosthetics.



## Our Individualized Approach

Our highly acclaimed therapeutic program is at the forefront of innovation when providing care for our young patients. We have created Infant Toddler Tracks to guide and support the individual and complex needs of our patients throughout the care journey. The tracks support the safest, evidence-based approach to care. A diverse range of therapies are introduced in each track at an appropriate frequency and duration. In addition to medical treatment, therapies often include:

- Aquatic Therapy
- Infant Massage
- Occupational Therapy
- Physical Therapy
- Speech Therapy
- Cuddlers
- Child Life
- Nutrition/Dietary
- Respiratory Therapy
- Recreational Therapy
- Psychology

Supported with 24-hour comprehensive medical and nursing care, our team of specialists continuously creates a nurturing and calming setting that orients infants and toddlers to their sensory adaption and integration within their environment. Children’s Specialized Hospital is at the forefront of technological innovations and clinical strategies such as:



Computer-mediated learning and assistive technologies to increase the cognitive-motor development of medically compromised infants

Transition of ventilator or technology dependent children to portable ventilation allowing them to transition home

On-site retinal scanning technology

Neuromuscular Electrical Stimulation to promote improved secretion



Upon discharge, we offer support groups, workshops and training programs to educate families and prepare them to help manage their child’s unique needs. We also guide the family through their preparation for home. Families are thoroughly educated about future needs, which may include a home evaluation to determine how best to accommodate ventilators, oxygen, or other medical equipment. Throughout our continuum of care, Children’s Specialized Hospital remains focused on the ultimate goal: a successful return to home and the community.

### Our Team

The Infant toddler Program is under the direction of a physician, who is board certified in Pediatrics and is supported by an Advanced Practice Nurse, along with an expert rehabilitation team and medical subspecialists in areas such as neurology, ophthalmology, orthopedics, physiatry, psychiatry, radiology, and urology. All medical programs are under the supervision of the Section Chief of Inpatient Services and the Chief Medical Officer.

### Our Outcomes

- A higher percentage of our infants wean off ventilators compared to other similar facilities



# Multi-Complicated Trauma



Our program treats patients who have sustained complex injuries such as:

- Multiple bone fractures and injuries
- Trauma to skin and other organs
- Multiple injuries involving the brain and/or spine
- Bowel and bladder trauma
- Lung injuries

## Our Specialized Care

The highly specialized Multi-Complicated Trauma Program at Children’s Specialized Hospital provides advanced critical rehabilitation care for children and adolescents from birth to 21 years, who have experienced major or multi-complicated trauma. The range of injuries sustained often include severe trauma to multiple organ systems, resulting in the need for comprehensive rehabilitation.

## Our Individualized Approach

Patients admitted to the program following major and/or multi-complicated traumas, are offered an individualized rehabilitation program by an interdisciplinary team including experts in orthopedics, physical medicine and rehabilitation (physiatry), pediatrics, neurology, psychiatry/psychology, and other medical specialties. Additionally, during an inpatient stay, patients follow a plan of care specifically tailored to their needs. Each day, patients work with expert therapists specializing in the treatment of complicated trauma rehabilitation. Our clinical teams are highly skilled in the rehabilitation of patients in need of:

- Ventilator management and weaning
- Tracheostomy care
- Gastrostomy feedings
- Total parenteral nutrition
- Prolonged intravenous antibiotic administration
- Catheter management
- Wound care





Upon discharge, patients are guided by expert clinical staff of Children’s Specialized Hospital and referring acute care facilities on continuing the plan of care. Communication between medical staff and family is ongoing to monitor patient progress. If needed, education is provided for caregivers to ensure a seamless transition home.

## Our Team

The Multi-Complicated Trauma Program is under the direction of a physician, who is board certified in Pediatrics and Physical Medicine and Rehabilitation (Physiatry), with subspecialty certification in Spinal Cord Injury Medicine and Pediatric Physical Medicine. The physician is supported by an Advanced Practice Nurse and a talented team of staff pediatric specialists, as well as consulting physicians. All medical programs are under the supervision of the Chief Medical Officer and Section Chief of Inpatient Services.

## Our Outcomes

- Our inpatient multi-complicated trauma program is significantly better than the national average in:
  - Faster recovery rates
  - Better recovery rates
  - Improved abilities upon discharge
  - Independence upon discharge

(Source: 2018 Uniform Data System for Medical Rehabilitation WeeFIM)

# Neonatal Abstinence Syndrome Program



The Neonatal Abstinence Syndrome Program treats newborns affected by exposure to various drugs in utero. These health effects can include:

- Failure to thrive
- Irritability from withdrawal symptoms
- Gastrointestinal symptoms
- Inability to sleep



## Our Specialized Care

Our Neonatal Abstinence Syndrome (NAS) Program is specially designed to help infants who have been prenatally exposed to drugs in utero. They often times have serious health effects and undergo a withdrawal process after they're born. Upon admission, infants at risk for Neonatal Abstinence Syndrome are carefully monitored by highly skilled clinicians for signs consistent with withdrawal and development. Based on the results of ongoing assessments, each young patient is cared for based on their individual needs.

## Our Individualized Approach

During the inpatient stay in the Neonatal Abstinence Syndrome Program, our team provides innovative programming and expert care to achieve the greatest outcomes. In order to ensure our smallest patients are able to develop and grow, Children's Specialized Hospital creates a nurturing environment by implementing positive sensory inputs such as:

Swaddling	Therapeutic touch and handling
Bathing	Vestibular sensations such as rocking



Our holistic approach to medical transposition includes:

- Medication management (including tapering and discontinuation of medication)
- Monitoring weight gain, growth charts, and nutrition
- Comprehensive nursing assessment
- Aquatic and physical therapy can be used to increase range of motion and positioning
- Occupational therapy and infant massage are implemented for self-calming and visual motor stimulation

In preparation for discharge, parents and caregivers are given training in medication, CPR, and feeding. Additionally, Children’s Specialized Hospital medical staff communicates with parents and caregivers post-discharge regarding the care provided and progress.

### Our Team

The Neonatal Abstinence Syndrome Program is under the direction of a physician, who is board certified in Pediatrics and Pediatric Critical Care Medicine, and is supported by an APN and a highly trained interdisciplinary team that is comprised of pediatric medical, physical, speech, and occupational therapy specialists, respiratory therapists, recreational and child life therapists, dietitians, patient care coordinators, and volunteer cuddlers. All medical programs are under the supervision of the Section Chief of Inpatient Services and the Chief Medical Officer.

### Our Outcomes

- 100% of infants in neonatal abstinence syndrome program were weaned off medications
- 100% of infants in neonatal abstinence syndrome program achieved appropriate weight gain
- 100% of infants in neonatal abstinence syndrome program achieved normal apnea study
- 100% caregiver confidence

# Neuromuscular and Genetic Disorders



Our comprehensive inpatient program treats conditions such as:

- Guillian-Barre Syndrome
- Various neuropathies
- Myopathies
- Muscular Dystrophy
- Complex genetic disorders
- Spinal muscular atrophy
- Diseases of neuromuscular junction

## Our Specialized Care

The Neuromuscular and Genetic Disorders Program at Children’s Specialized Hospital is a multidisciplinary rehabilitation program designed to treat children ages birth to 21 years with complex needs and conditions. Our highly specialized program provides individualized care for children who are ventilator dependent or walk with assistive devices.

## Our Individualized Approach

Upon admission into the Neuromuscular and Genetic Disorders Program, patients are provided a comprehensive team evaluation, diagnostic assessment and a personalized rehabilitation plan that can include:

- Aquatic therapy
- Physical therapy
- Occupational therapy
- Recreational and Child Life therapy
- Speech therapy
- Psychology
- Functional electronic stimulation with cycle ergometry



Throughout the child’s stay in the Neuromuscular and Genetic Disorders Program, continuous assessments and goals are created to provide each patient with the tools to improve their mobility, functionality, independence in self-care, and utilization of assistive devices and adaptive technology. Each patient works to reach personal goals and development milestones.



The multidisciplinary approach to therapy allows patients to progress in ways such as:

- Walking as appropriate without assistive devices
- Improving general functions
- Utilizing muscular power and cognitive skills to advance self-care
- Enhancing skills and mobility
- Increasing potential of feeding by mouth
- Utilizing adaptive technology and assistive mobility to increase individual potential

The highly specialized inpatient program provides comprehensive follow-up that can include referrals to medical specialists and outpatient therapy.

### Our Team

The Neuromuscular and Genetic Disorders Program is under the direction of a physician, who is board certified in Pediatrics and Physical Medicine and Rehabilitation (Physiatry) with subspecialty certification in Spinal Cord Injury Medicine and Pediatric Physical Medicine. The physician is supported by an Advanced Practice Nurse and a talented team of staff pediatric specialists, as well as consulting physicians. All medical programs are under the supervision of the Chief Medical Officer and Section Chief of Inpatient Services.

### Our Outcomes

- Our Neuromuscular and Genetic Disorder Program is significantly better than the national average in:
  - Faster recovery rates
  - Better recovery results
  - Improved abilities upon discharge
  - More independence upon discharge

(Source: 2018 Uniform Data System for Medical Rehabilitation WeeFIM)

## Post Surgical Orthopedics



Comprehensive therapy is provided following surgery for a variety of causes, including:

- Cerebral palsy
- Muscular dystrophies
- Limb length discrepancies
- Scoliosis correction surgery
- Severe spasticity
- Bone Tumors
- Congenital limb deficiency and deformity
- Hip dysplasia
- Spina bifida

### Our Specialized Care

The Post-Surgical Orthopedics Program at Children's Specialized Hospital is designed to provide intensive coordinated care tailored to the needs of children from birth to 21 years upon discharge from surgery. Our program is designed to ensure children and adolescents can transition from operative care to intensive post-operative rehabilitation based on their individual needs.

### Our Individualized Approach

Immediately following postsurgical procedures, or upon clearance from attending surgeon, the patient, family, and interdisciplinary team develop attainable goals for rehabilitation. Many times, rehabilitation is an extension of prior surgical care or complementary to the ongoing care of a referring surgical specialist. As a part of the Post-Surgical Orthopedics Program, treatment modalities can include:

Partial weight bearing treadmill training

Orthotic evaluations

Various assistive devices including: walkers, crutches, and wheelchairs

Functional electric stimulation with cycle ergometry

Various forms of exercise equipment

Facilitation and handling techniques

Upon discharge, education for parents is available to continue progress in the home environment. The ultimate goal is to prepare the patient to return home to all normal school and community activities.



## Our Team

The Post-Surgical Orthopedics Program is under the direction of a physician, who is board certified in Pediatrics and Physical Medicine and Rehabilitation (Physiatry) with subspecialty certification in Spinal Cord Injury Medicine and Pediatric Physical Medicine. The physician is supported by an Advanced Practice Nurse and a talented team of staff pediatric specialists, as well as consulting physicians. All medical programs are under the supervision of the Chief Medical Officer and the Section Chief of Inpatient Services.

## Our Outcomes

- Our inpatient orthopedic program is significantly better than the national average in:
  - Better recovery results
  - Improved abilities upon discharge
  - Higher independence upon discharge

(Source: 2018 Uniform Data System for Medical Rehabilitation WeeFIM)



# Spinal Cord Injury



## The Spinal Cord Program treats children with conditions such as:

- Traumatic spinal cord injuries
- Cervical spinal cord injuries
- Cervical level injuries, with ventilator management and weaning (tetraplegia/quadriplegia)
- Spinal tumors
- Lower-level spinal cord injuries (paraplegia)
- Spina bifida
- Transverse myelitis
- Nerve damage
- Spinal cord stroke
- Spinal Stenosis
- Scoliosis
- Guilliane Barre Syndrome

## Our Specialized Care

The Spinal Cord Rehabilitation Program at Children’s Specialized Hospital provides intensive and comprehensive rehabilitation services for infants, children, and adolescents with acquired, traumatic, and congenital spinal cord dysfunction.

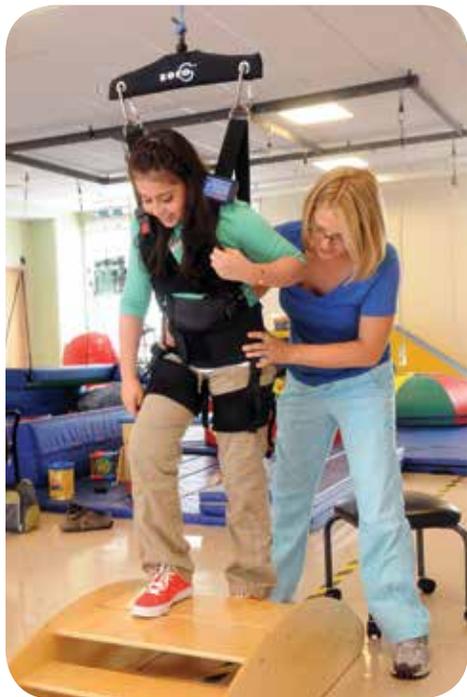
The program treats patients with all levels of pediatric spinal cord dysfunction, including patients who are ventilator dependent, those who need medical support, special equipment, and special feeding needs through intravenous and central lines.

## Our Individualized Approach

Upon admission into our Spinal Cord Rehabilitation Program, the specialty physician and the rehabilitation team complete a comprehensive evaluation. Our team of specialists plans a treatment program and meets regularly throughout the child’s stay to monitor progress and set goals. To maximize the rehabilitation potential for each patient, our hospital utilizes state-of-the-art equipment. Treatments include:

- Assistive technology
- Functional electric stimulation with cycle ergometry
- Body weight supported treadmill training
- Virtual reality
- ZeroG® gait training system





Discharge planning begins as soon as the patient is admitted to the Spinal Cord Rehabilitation Program. At that time, the patient and his or her family are thoroughly educated about future needs. As discharge approaches, the patient can make a functional trial visit to his or her home. This ensures a smooth transition for the entire family upon discharge. Additional services for returning to school and community activities are also available. The program provides comprehensive follow-up, from referring the patient to proper medical specialists to ensuring continuity of care.

## Our Team

The Spinal Cord Rehabilitation Program is under the direction of a physician who is board certified in Pediatrics and Physical Medicine and Rehabilitation with subspecialty certification in Spinal Cord Injury Medicine and Pediatric Physical Medicine and Rehabilitation. The physician is supported by an Advanced Practice Nurse and a talented team of staff pediatric specialists, as well as consulting physicians. All medical programs are under the supervision of the Section Chief of Inpatient Services and the Chief Medical Officer.

## Our Outcomes

- 100% of patient parents would recommend our inpatient spinal cord program to others  
(Source: 2018 Press Ganey independent survey)
- Our patients with spinal cord injuries had significantly more successful recoveries than the average outcomes of similar national facilities.  
(Source: 2018 Uniform Data System for Medical Rehabilitation WeeFIM)
- Our inpatient spinal cord rehabilitation program is significantly better than the national average in:
  - Faster recovery rates
  - Better recovery results
  - Higher ability level upon discharge
  - More independence upon discharge

(Source: 2018 Uniform Data System for Medical Rehabilitation WeeFIM)



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