



The Future of Pediatric Epilepsy Care is Happening Now



**NATIONWIDE
CHILDREN'S**

When your child needs a hospital, everything matters.SM

Level 4 designation is reserved for epilepsy programs offering the highest level of comprehensive, specialized care.



Daeshaun (center) and his mother consult with Anup Patel, MD.

THE HIGHEST LEVEL OF EPILEPSY CARE

Comprehensive pediatric epilepsy care requires unique specialists, leading technology and an ongoing partnership with referring physicians. But at Nationwide Children's we believe in taking it to the highest level. That's why the National Association of Epilepsy Centers (NAEC) has accredited the Epilepsy Center at Nationwide Children's as a Level 4 epilepsy program—a designation reserved for programs offering the highest level of comprehensive and specialized care.

We are also answering the call to dramatically improve key areas identified in the 2012 Institute of Medicine (IOM) report on epilepsy care delivery:

- We offer a patient-centered health care experience that addresses associated health conditions at the time of appointment, one of the most important steps in decreasing the fragmented care described by the IOM.
- We have implemented and continue to implement quality improvement interventions within the Epilepsy Center, all geared toward improving care for the individual patient, improving the health of populations and reducing health care costs.
- We partner with the community by having the Epilepsy Foundation in our center to see patients, providing education and awareness during the patient's appointment.

ADVANCED CLINICAL SERVICES

New Onset Seizure Clinic

This specialized clinic not only addresses a patient's immediate medical needs. It also focuses on the educational and psychosocial needs of the child and his or her family when they have encountered a first seizure or a new diagnosis of epilepsy. Our goal is to see these patients within two weeks of a referral.

Epilepsy Surgery

Our neurosurgical program plays an integral role in the epilepsy center. Curative surgery for seizures includes operating on the portion of the brain responsible for seizure onset. Other special procedures (hemispherectomy, corpus callosotomy, implantation of vagus nerve stimulators) may be used to improve seizure control. As a Level 4 center, we are able to assess children with treatment-resistant seizures where the cause is identified by an imaging abnormality, as well as those whose MRI is normal. We also conduct functional cortical mapping by stimulation of subdural electrodes either extra-operatively or intraoperatively.

Complex Epilepsy Clinic

Patients who are not candidates for epilepsy surgery and have not become seizure-free after being on at least two different seizure medications can be referred to our Complex Epilepsy Clinic. Here our comprehensive team meets with patients and their families with the goal of identifying other treatment options which may include inclusion in epilepsy medication trials for treatments not yet available commercially. Further, the psycho-social aspects of living with treatment resistant epilepsy, for both the child and the family, are addressed.

Infantile Spasms Clinic

This clinic is a multidisciplinary team consisting of a pediatric neurologist, nurse practitioner, social worker, developmental psychologist and registered nurses. We have established a standardized management protocol for the diagnosis, treatment and follow-up of infantile spasms that is consistent with best available evidence and national expert recommendations. The protocol emphasizes the rapid diagnosis and treatment of infantile spasms, the use of first-line therapy and early changes if the initial treatment is deemed ineffective.

Psychogenic (Non-Epileptic) Seizures (PNES)

These episodes are changes in behavior that resemble seizures, but the underlying cause is psychological in nature. PNES may be diagnosed by video EEG monitoring or based on description of the event and psychological evaluation. Our patients are evaluated by a pediatric epilepsy nurse practitioner and a pediatric psychologist who have special expertise with PNES. Pediatric epileptologists are available for consultation. Treatment requires family education and therapy, individual psychotherapy, and sometimes medications to treat underlying mental health problems.

State-of-the-art Diagnostics

- Video telemetry unit
- Routine digital video EEG
- 24-hour long-term video EEG monitoring in a unit specifically designed for children
- Evoked potentials and intraoperative monitoring
- MRI and WADA studies for evaluating regions of eloquent cortex
- MRI with spectroscopy and diffusion analysis
- PET (positron emission tomography)
- SPECT (single photon emission computerized tomography)

Leading Therapies

- Anticonvulsant drug evaluations and recommendations
- Epilepsy surgery
- Ketogenic diet
- Participation in drug trials of new or difficult to obtain anticonvulsant medications
- Surgical evaluations
- Vagal nerve implantation, stimulation and programming

Benefits of Level 4 Epilepsy Center Care	Level 4	Level 3	Level 2	Level 1
Broad range of surgical procedures for epilepsy	●			
Electrocorticography	●			
Evoked potential recording	●			
Functional cortical mapping with subdural electrodes	●			
Intracranial evaluations	●			
Specialized neuroimaging (PET, SPECT)	●	●		
Pediatric epileptologists	●	●		
Implantation of vagus nerve stimulators	●	●		
Straight-forward resective epilepsy surgery	●	●		
Noninvasive evaluation for epilepsy surgery	●	●		
Basic neurodiagnostic evaluation	●	●		
Basic range of medical, neuro-psychological and psychosocial care	●	●		
General neurology	●	●	●	
Primary care physician, hospital emergency department	●	●	●	●

National Association of Epilepsy Centers. "Guidelines for essential services, personnel, and facilities in specialized epilepsy centers." 2010 Jan 12. The National Association of Epilepsy Centers: Minneapolis, MN. Retrieved from www.naec-epilepsy.org

As a Level 4 epilepsy center, we serve as a referral center for epilepsy patients from across our region and beyond. In addition to the basic range of services, we provide complex neurodiagnostic monitoring, as well as extensive medical, neuropsychological and psychosocial treatment. A Level 4 accreditation also requires advanced epilepsy surgery services, including evaluation using intracranial electrodes.

Interdisciplinary Team Members

- Pediatric neurologists/epileptologists
- Pediatric ophthalmologists
- Pediatric neurosurgeons
- Pediatric nurse practitioners
- Clinical pharmacists
- Clinical social workers
- Epilepsy Foundation educators
- Child Life specialists
- Pediatric neuropsychologists/psychologists
- Pediatric behavioral specialists
- Dietitians
- Genetic counselors
- Pathologists
- Neurodiagnostic technicians
- Nuclear medicine specialists
- Neuroradiologists
- Administrative support

Pediatric Neurology
700 Children's Drive
Columbus, Ohio 43205
NationwideChildrens.org/Neurology

Referrals and Consultations

Online: NationwideChildrens.org

Phone: (614) 722-6200 or (877) 722-6220 | Fax: (614) 722-4000

Physician Direct Connect Line for 24-hour urgent physician consultations:
(614) 355-0221 or (877) 355-0221.

