The Weill Cornell Medicine Division of Pediatric Neurology has a long history of excellent patient care, providing both inpatient and outpatient management of all pediatric neurological problems, including epilepsy, concussion and metabolic disorders. Our team of pediatric neurologists, nurse practitioners and dieticians provide state-of-the-art, individualized care for children and their families.

**Services & Programs**
Our neurologists and neurosurgeons provide care for all pediatric neurological diseases and disorders, including:

- autism and other developmental disabilities
- cerebral palsy
• concussion and Mild Traumatic Brain Injury (MTBI)
• congenital malformations (including spinal bifida)
• craniofacial abnormalities
• epilepsy
• headaches
• hydrocephalus
• mental retardation
• metabolic diseases
• movement disorders (including tics and Tourette syndrome)
• neonatal neurology
• neurocritical care
• neurogenetic disorders
• neuromuscular disorders
• pediatric neurovascular interventional radiology
• spasticity
• stroke
• tumors of the brain and spine

Diagnosis & Treatment

We diagnose and treat the full spectrum of developmental brain disorders, including specialized expertise in the following areas:

**Epilepsy**
The Pediatric Comprehensive Epilepsy Program offers a full range of services to care for the most complex cases of epilepsy in children, with capabilities are augmented by the creation of a dedicated pediatric epilepsy monitoring unit. An accurate diagnosis of the underlying cause of the
epilepsy, identification of associated learning and behavioral conditions, and continuous EEG monitoring to define seizure type allow for a tailored intervention for children and their families. Medications, ketogenic diet plans and a wide range of surgical approaches are available. Our center serves as a referral unit for second opinions and can assume care when requested.

**Epilepsy Program**

**Neurogenetics, Neurofibromatosis and Neuro-Oncology**
Our neurologists work closely with the Division of Medical Genetics to pursue genetic diagnoses to explain the origins of abnormal brain development - the "why" and "how" a neurologic problem developed. This information is important for predicting outcomes as children approach adulthood, searching for specific medical interventions, and critical in assessing familial risks for recurrence. Brain development disorders that our neurologists specialize in include malformations of the brain, unexplained mental retardation, cerebral palsy, autism, neurodegenerative diseases, refractory epilepsy and other familial neurological conditions.

**Neurogenetics, Neurofibromatosis & Neuro-Oncology Program**

**Pediatric Concussion**
The Weill Cornell Medicine Pediatric Concussion Clinic brings a rational, science-based approach to the assessment and management of concussion. Our team consists of specially trained pediatric neurologists, neuropsychologists, neuro-ophthalmologists, and vestibular and physical therapists who provide integrated state-of-the-art care for patients and their families following traumatic brain injuries.

**Concussion Program**

**Pediatric Neurovascular Interventional Radiology**
Pediatric strokes and intracranial bleeding are frequently accompanied by blood vessel abnormalities in and around the brain that require rapid assessment and appropriate interventions to prevent subsequent catastrophic events. Using specific imaging techniques and surgical tools, our interventional radiologists and neurosurgeons treat conditions including ArterioVenous Malformation (AVM), cerebral aneurysm and moyamoya disease.

**Tumors of the Brain and Spine**
Our neurology specialists collaborate with physicians and pediatricians specializing in neurosurgery, neuroradiology, radiation therapy and oncology at Memorial Sloan Kettering Cancer Center, to offer state-of-the-art evaluations for children with nervous system tumors and those at risk of developing them. Our collaborative practice yields multidisciplinary case discussions and attracts pediatric patients with neurofibromatosis and tuberous sclerosis from across the nation. Our specialists develop and apply novel neurosurgical techniques to treat pediatric tumors and minimize their sequelae.

**Neonatal Neurology**
Neurologists play an integral role in the care of newborn infants with brain abnormalities. Our Neonatal Intensive Care Unit (NICU) neonatologists treat babies with Hypoxic-Ischemic Encephalopathy (HIE), a condition arising from lack of oxygen at birth, and have demonstrated that reducing a baby's core body temperature for several days while monitoring their brain activity with EEG can reduce long-term damage. Neonates with other nervous system abnormalities also
benefit from our collaborative neonatology teams, who aid with treatment of both acute and long-term conditions.

**Neurocritical Care**
Otherwise normal children may develop acute systemic illnesses that place the brain at risk of injury. Our Pediatric Intensive Care Unit (PICU) critical care physicians, neurologists and neurosurgeons provide expert care for children who have sustained a traumatic brain or spinal injury, status epilepticus, encephalitis, meningitis or coma. Our rapid availability of neurodiagnostic studies, and our physicians who review, interpret and work together to intervene, allow us to produce an unparalleled amount of optimal outcomes. This expertise is transferred to high-risk patients who undergo cardiac or cerebral surgeries, who are cared for by the specially trained neurological staff of our PICU.

**Spasticity**
Children with brain and spinal cord disorders frequently experience abnormalities of extremity movement that impair their movement and interfere with their care. We treat this tightness, or spasticity, with a wide range of interventions administered through the close collaboration of our neurologists, neurosurgeons, orthopedists, physiatrists, nurse practitioners, and physical and occupational therapists. Our neurosurgeons and neurologists have over 10 years of experience treating spastic conditions, utilizing modalities including Baclofen pumps, and provide ongoing consultation and/or management for our spastic patients.

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**Research**

**Weill Cornell Medicine Pediatric Neurology Researchers**

**Zachary Grinspan, M.D., M.S.**
Dr. Grinspan’s focuses his research efforts on the analysis of large clinical and administrative datasets to answer the core questions surrounding pediatric epilepsy.

**Barry E. Kosofsky, M.D., Ph.D.**
Dr. Kosofsky’s research focuses on prenatal cocaine exposure. He is also involved in clinical research to evaluate the effectiveness of computer programs to enhance attention and improve working memory in normal 18-25-year-olds.

**Anjali Rajadhyaksha, Ph.D.**
Dr. Rajadhyaksha’s current work revolves around the molecular mechanisms of substance abuse, drug addiction and mood disorders. Her group hopes that a better understanding of the brain at a molecular level will lead to therapeutic strategies for treating addiction and co-occurring mood-related conditions.

**Praveen Raju, M.D., Ph.D.**
Dr. Raju’s lab group explores the biology of medulloblastoma, the most common malignant brain tumor in children, and one of the leading causes of death in this age group. He hopes that a
deeper understanding of the disease will aid in prognosis and identification of novel treatments. The group also actively produces improved animal models for other pediatric brain tumors, including Atypical Teratoid Rhabdoid Tumors (ATRTs), Diffuse Intrinsic Pontine Gliomas (DIPGs) and Subependymal Giant Cell Astrocytomas (SEGAs), in order to identify improved therapies essential for patients with these devastating diseases.

What Sets Us Apart

- We utilize advanced, research-based brain imaging and neurogenetic testing methods to improve our ability to diagnose and treat patients.
- Our state-of-the-art pediatric ICU and pediatric epilepsy monitoring unit allow us to provide optimal care for the most complex inpatient conditions.
- We emphasize a team approach, working closely with faculty in the Divisions of Pediatric Genetics, Psychiatry, Neuroradiology, Neurosurgery and Development.
- We are able to provide coordinated care for a wide spectrum of developmental brain disorders through our multidisciplinary subspecialty outpatient clinics.

JUMP TO:

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