

Neurology

The Neurology Practice at Children's Hospital Central California provides diagnostic services, medical treatment, and follow-up care to infants, children, and adolescents who have suspected or confirmed neurological disorders. Our pediatric neurologists manage and treat a variety of patients including those with epilepsy disorders, neuromuscular disorders and spasticity.

Neurologists also provide subspecialty services in Merced, Modesto and Visalia, providing children and families with access to care close to home.

Children's Access Center

24/7 access for referring physicians

(866) 353-KIDS (5437)

Outpatient Referral

Referral forms online at: www.childrenscentralcal.org/services/medicaloffice/refer

FAX: (559) 353-8888

Neurology Office Numbers

Main Number: (559) 353-6215

FAX: (559) 353-6222

Physician Line: (559) 353-6373

Physician Liaison: (559) 353-7229

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Pediatric Neurology Consultant Reference Guide

The Neurology Practice at Children's Hospital Central California provides diagnostic services, medical treatment and follow-up care to children who have suspected or confirmed neurological disorders, such as tumors, encephalitis, seizures or neuropathies. Follow-up care can include monitoring treatment outcomes, referring the child for additional medical care, and providing information and recommendation to the family for health, school, and quality of life decisions. In addition to pediatric neurologists, the practice is staffed with two nurse practitioners and pediatric nurses. A neurologist is on call, 24 hours a day, 7 days a week, for emergencies.

The following conditions may be best treated by a pediatric neurologist:

- Abnormal/involuntary movement disorders (e.g., tics, ataxia, chorea)
- Cerebral palsy with seizures
- Developmental regression
- Headaches/migraines with no response to first line medications
- Neurological aspects of head injuries and brain tumors
- Seizure disorders, including seizures in newborns, febrile convulsions, and epilepsy
 - 2nd seizure in 1 year
 - <1 year of age
 - Recent onset associated with traumatic brain injury
 - In association with genetic syndrome, metabolic abnormality, or cerebral palsy
- Suspected muscular dystrophy
- Weakness – Non-acute, including cerebral palsy, muscular dystrophy, and nerve-muscle disorders

Pediatric Neurology Referral Guidelines

A pediatric neurologist has completed a residency in pediatrics and had additional training in adult and child neurology. Most pediatric neurologists have certification from the American Board of Pediatrics and the American Board of Psychiatry and Neurology (with special competency in child neurology).

Pediatric neurologists combine the expertise in diagnosing and treating disorders of the nervous system (brain, spinal cord, muscles, nerves) with an understanding of medical disorders in childhood and the special needs of the child and their family.

In many cases, pediatric neurologists work as a team with pediatricians or other primary care doctors.

In addition, pediatric neurologists may work with other pediatric specialists to care for children with more complex or serious medical issues, such as epilepsy, birth defects, or mental retardation.

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Disease State	Suggested Work-up and Initial Management	When to Refer
Headache	<p>-Patients with recurrent headache and a normal neurologic exam generally do not require ancillary testing</p> <p>-MRI suggested for patients who have headaches that awaken them in the middle of the night, or begin shortly after rising from bed in the morning, or are associated with transient neurologic deficits</p> <p>-All patients should have a fundoscopic exam to evaluate for papilledema prior to their referral</p> <p>Migraine Disability Test http://www.headaches.org/pdf/MIDAS.pdf</p> <p>Headache Impact Test, English http://www.headachetest.com/HIT6/PDFS/English.PDF</p> <p>Headache Impact Test, Spanish http://www.headachetest.com/HIT6/PDFS/Spanish520US.pdf</p>	<p>-Persistent or frequent (more than 1 per week) headaches not responding to first-line medications or for patients with headache associated with focal neurologic deficits.</p> <p>-Patients with a new severe headache of acute onset, headache with a focal neurologic deficit, or headache associated with papilledema should be referred to the Emergency Department</p>
Febrile Seizures	<p>-Infants and toddlers up to 6 years with simple (benign) febrile seizures do not require brain imaging, EEG, or neurological consultation</p>	<p>-Children with multiple recurrences of simple febrile seizures may benefit from consultation on a case-by-case basis</p> <p>-Consultation may be considered for children with atypical (complex) febrile seizures, defined as lasting >15 minutes, a febrile seizure with partial onset, focal features during the seizure, or recurrent febrile seizures within 24 hours of the first episode.</p>
First Afebrile Seizure	<p>-An awake and asleep EEG is optional after a first unprovoked afebrile seizure. Prefer EEG obtained at Children's. EEG should be scheduled at least 1 week after initial event</p>	<p>-After second event (EEG highly recommended)</p>

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Disease State	Suggested Work-up and Initial Management	When to Refer
Any seizure < 1 year old	EEG	Refer urgently after EEG is completed
Recurrent Unprovoked Seizures (epilepsy)	<ul style="list-style-type: none"> -Awake and asleep EEG preferably at Children's -MRI optional 	<ul style="list-style-type: none"> -Consulting neurologist will provide the primary care physician with recommendations for further evaluation and management
Cerebral Palsy combined with epilepsy or other movement disorder	<ul style="list-style-type: none"> -Documentation of current interventions, therapies, and treatments -Description of functional limitations -Brain images such as MRI, CT, or ultrasound -X-rays of the spine and lower extremities (for movement issues) 	<ul style="list-style-type: none"> -After completion of imaging study and work up
Hypotonia/Suspected Neuromuscular Disease	-Serum CPK	After completion of study refer to Neurology Clinic
Developmental Delay	<ul style="list-style-type: none"> -Some method of developmental screening/surveillance indicating global delay or delay in specific area (especially birth to age 3 assessments) completed 	<ul style="list-style-type: none"> - Refer to Central Valley Regional Center and then possibly Neurology Clinic depending on results of evaluation
Spasticity Management	<ul style="list-style-type: none"> -Medical work-up to determine the cause of the spasticity or other movement disorder should be completed prior to seeking consultation -GMFCS rating if this assessment tool was used to determine functional limitations -Related radiologic testing (CT scans, MRIs of the head or spine and X-rays of the spine and hips) -Spasticity evaluation 	<ul style="list-style-type: none"> -Spasticity that causes pain, functional impairment, or care difficulties should be referred to Physiatry Clinic

Common Pediatric Neurology Conditions and ICD 9 Codes

307.22	Chronic Tic Disorder	345.3	Sz Grand Mal Status
307.23	Tic Disorder (Motor Ver)	345.6	Sz Infantile Spasms
307.20	Tic Disorder (NOS)	345.61	Sz Infantile Spasms Intract
343.0	C P Diplegic	345.80	Sz other Epilepsy
343.1	C P Hemiplegic	345.81	Sz Other Epilepsy Intract
343.9	C P Infantile (NOS)	345.2	Sz Petit Mal Status
343.4	C P Infantile Hemiplegia	436	Stroke
343.3	C P Monoplegic	728.9	Muscle Weakness
343.8	C P Other	784	Headache
343.2	C P Quadriplegic	781	Involuntary movements
333.5	Chorea	854.0	Brain Inj w/ open wound
323.9	Encephalitis (NOS)	854.1	Brain inj w/out open wound
333.4	Huntington's Chorea	V71.2	Neuro Disorder Suspected
346.9	Migraine (NOS)		
346.10	Migraine Common		
335.2	Motor Neuron Disorder		
359.21	Myotonic Muscular Dystrophy		
357.9	Neuropathy (NOS)		
345.40	Sz Complex partial		
345.41	Sz Complex partial Intract		
345.10	Sz Generalized Convulsive		
345.11	Sz Convulsive Intract		
345.90	Sz Epilepsy (NOS)		
345.91	Sz Epilepsy Intract (NOS)		
345.50	Sz Focal – Motor		
345.51	Sz Focal-Motor Intract		
345	Sz Gen Non-Conv		
345.01	Sz Gen Non-Conv Intract		

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Insurance Plans*

Aetna EPO/HMO/PPO

AllCare IPA

Bakersfield Family Medical Center/ Heritage Physician Network

Blue Cross HMO/ Prudent Buyer PPO/ Healthy Families EPO

Blue Cross Medi-Cal/ Healthy Families HMO

Blue Shield HMO/ PPO/ Healthy Families

Capp Care (Beachstreet)

Catholic Healthcare West-Bakersfield

CCS – California Children's Services

Central California Alliance for Health

Central Valley Medical Group CVMG

Choice Care

Cigna/ Greatwest

Delano Regional Medical Group

EHS IPA (Blue Cross Managed Medi-Cal Patients/Healthy Families)

Emmanuel Employee Benefit Plan

First Health/ CCN

Foundation HealthCare Administrators/ California Foundation for Medical Care

GemCare IPA/ Managed Care Systems

Health Net HMO/ PPO/ Healthy Families/ Healthy Kids

Health Net Medi-Cal / CalViva

Health Plan San Joaquin Medi-Cal/ Healthy Families

Hill Physician Medical Group

Interplan

Kaiser HMO/ Healthy Families/ Medi-Cal

Kern Health Systems Medi-Cal/ Healthy Families

Key /Mosaic Medical Group IPA

LaSalle IPA (Blue Cross Managed Medi-Cal)

Medicare

MediCal – California State

MedCore Medical Group

Multiplan/ PHCS

Sante IPA

Sutter Gould Medical Foundation

Sutter Hospital System (Modesto Memorial, Memorial Los Banos, Sutter Tracy)

TriWest (Formally TRICARE/CHAMPUS)

United HealthCare /PacifiCare

Universal Care

* Contracted Status subject to change. If you have questions or to verify coverage please call 559.353.8800/888.824.5439