



# Central California Pediatrics

November 2019

Specialty information for physicians who treat children and expectant mothers.



## Febrile Seizures vs Epilepsy: When to Refer

**Steven Ehrreich, MD**

Pediatric Neurologist, Valley Children's Healthcare

The estimated prevalence of epilepsy in pediatric and adolescent populations is four per 1,000 people. In the Valley Children's 12-county service area, there are approximately 1.2 million children. This amounts to about 5,000 children in this area with epilepsy, based on general statistics.

### Defining Epilepsy

The definition of epilepsy has changed somewhat from "the tendency to have recurrent unprovoked seizures" to also include an "isolated seizure with an electroencephalogram (EEG) that predicts a seizure recurrence/epileptic syndrome." Although the spectrum of factors that could produce epilepsy is extensive (infections, trauma, intracranial hemorrhage, stroke, genetic causes, malformations, metabolic causes and toxin exposure), many pediatric epilepsies are fairly benign.

For instance, 3-5% of all children will have a single febrile seizure in the first five years of life, with 30% having additional febrile seizures. Only 3-6% of those with febrile seizures will go on to develop epilepsy, so 94-97% of patients with an initial febrile seizure will not have epilepsy.

There are many epileptic syndromes that are easily controlled and may present to the general pediatrician, including childhood absence seizures, BECTS – benign epilepsy with centro-temporal spikes - (formerly Rolandic epilepsy) and juvenile myoclonic epilepsy. Syndromes presenting after or around adolescence will mean a higher risk for lifelong epilepsy, but many of the syndromes presenting before adolescence such as BECTS and childhood absence epilepsy have a very high rate of natural resolution – about 79% in childhood absence epilepsy and nearly 100% in BECTS. Both of these conditions have a very characteristic EEG pattern that solidifies the diagnosis.

### When to Refer

Many epileptic syndromes and difficult-to-control epilepsies such as infantile spasms, Lennox-Gastaut syndrome, Dravet syndrome and intractable focal epilepsies may require additional expertise. In these cases, the patient should be seen at a level 3 or level 4 epilepsy center. Fortunately, Valley Children's Hospital is a level 4 epilepsy center, the highest designation from the National Association of Epilepsy Centers. This means Valley Children's has the ability to manage intractable epilepsies and employ sophisticated diagnostic and surgical techniques.

The first step in evaluation of any epileptic syndrome, benign or malignant, is an EEG. If circumstances permit, and the EEG can be performed prior to the initial neurology encounter, this study may help determine diagnosis, prognosis and treatment if abnormal, and sometimes provides reassurance if normal. The EEG information may be a key to initiating proper treatment in a timely fashion for epilepsy patients. Benign/simple febrile seizures are typically the exception - if seizures are brief, only elicited by fever and follow a pattern of improvement in frequency over time, no EEG or referral is needed.

Epilepsy is not a straightforward condition, with some exceptions; therefore, open lines of communication between the primary practitioner and neurologist are always needed to get patients appropriate diagnosis and treatment as efficiently and effectively as possible. At Valley Children's, we always have a neurologist on-call who can answer your questions and help initiate and/or expedite the plan for your patient.

*For information or to make a neurology referral, please contact the neurology team at 559-353-6215.*



## First of Its Kind in the Valley Bridging Clinical Care and Community Health

### Lynne Ashbeck

Valley Children's Senior Vice President of Community Engagement and Population Wellness

The Guilds of Valley Children's Healthcare announced a \$5 million endowment dedicated to transforming the health and wellbeing of the Valley's children through the establishment of the Guilds Center for Community Health. The Center will be the first of its kind in the Central Valley to link clinical care, community partners and the healthcare network's current community health initiatives to improve the health of children where they live, learn and play.

"A few years ago, our Board of Trustees added a simple phrase to our mission - '...to continuously improve the health and wellbeing of children' - and those words have shaped our thinking that has brought us to the formation of this Center," says Todd Suntrapak, Valley Children's Healthcare President and CEO.

Studies show that clinical care accounts for 20% of the factors that impact a child's health and the remaining 80% is influenced by a wide range of factors including where they live, what they eat, the quality of their housing and the safety of their neighborhoods. Our ability to influence some of those challenges in the '80%' will help to give kids their best chance to simply be kids and to avoid the longer-term health consequences that follow.

The Center's work will be shaped by health data across Valley Children's 12-county service region and working closely with many community organizations, school districts, behavioral and public health agencies and others.

"The essence of the Center's work is to focus on keeping kids well in their own environment," says Dr. Carmela Sosa, medical director, Valley Children's Primary Care and newly named medical director of the Guilds Center for Community Health. "The Center will continue to expand our local partnerships to align our work and commitment to improving the health of our children in the most impactful, transformative and sustainable ways."



For more information, visit [valleychildrens.org/communityhealth](http://valleychildrens.org/communityhealth).

## Medical Staff News

The following pediatric specialists recently joined Valley Children's:

### Anesthesiology

Josemine Carey, MD  
Foram Parikh, MD

### Diagnostic Radiology

Crystal Farrell, MD

### Hospitalist (Mercy San Juan)

Ngoc Kim, MD

### Infectious Diseases

Vini Vijayan, MD

### Rheumatology

Sukesh Sukumaran, MD

## Upcoming CME Opportunities

### IPE Simulation – Please NOT ANOTHER PowerPoint!

December 10, 2019, 12 p.m. – 1 p.m.

Valley Children's Hospital, Madera Campus, G150B

### Speakers

Tara Lemoine, DO and Kim Bilskey, RN