

# First time unprovoked nonfebrile seizure assessment



## 1. Obtain a detailed history, a physical and a neurological exam

**Seizure history:** Age, family history of seizures, developmental status, behavior, health at seizure onset, past medical history, precipitating events (other than illness)

**Seizure characteristics:** Aura, behavior, vocal symptoms, motor, generalized or focal movements, respiratory symptoms, autonomic symptoms, decrease or loss of consciousness, duration of seizure

**Symptoms following seizure:** Amnesia, confusion, lethargy, sleepiness, headaches, muscle aches, transient focal weakness, nausea or vomiting

## 2. Consider diagnostic testing

### Laboratory testing

- Under 6 months of age—lab screens of serum electrolytes including calcium and magnesium
- Over 6 months of age—lab screening not recommended unless suspected:
  - Drug exposure (toxicology screening)
  - Meningitis or encephalitis (lumbar puncture)

### Neurophysiology

- EEG

This test is recommended for patients of all ages. (Inform the patient's family that a neurologist will review and interpret the EEG.)

- When ordering an EEG, write "NOS" or "New Onset Seizure" on the order form, and the test will be scheduled within three business days.

Visit [choa.org/eegorderform](http://choa.org/eegorderform) to download the EEG order form.

### Neuroimaging

- MRI

This test is only recommended for a second seizure.

- When ordering MRI, order an MRI without contrast. Indicate the reason for the exam as "NOS" or "New Onset Seizure" on the order form.

### Emergent imaging and neurology consult are needed if there are:

- Persistent postictal neurological deficits
- Abnormal mental status persisting several hours after seizure

### 3. Identify diagnosis and treatment

#### Identify diagnosis

- Dx1 Seizure type—focal or generalized (EEG can help classify)
- Dx2 Epileptic syndrome—symptomatic (abnormal MRI or neurodevelopmental disability) or genetic (presumptive)

#### Treatment

- Prescribe the rectal gel Diastat as needed for recurrent seizure.
- Provide the guardian with seizure first aid education (turn patient on side and keep track of how long seizure lasts), instructions on how to use Diastat (if the seizure continues longer than five minutes, give Diastat rectally) and directions to call 911 after using Diastat for the first time.

### 4. Determine need for referral to neurologist

#### Referral is indicated for:

- Prolonged, or second seizure
- Developmental delay/neurodevelopment disability
- Initial workup finding underlying etiology or true epileptic syndrome
- Patient or parental anxiety

#### Neurologists are available for consultation Monday to Friday.

- 8 a.m. to 5 p.m.
- Phone: **404-785-DOCS (3627)**

*Documentation of medical history and a physical including all indicated laboratory, neuroimaging and neurodiagnostic studies should be provided to the consulting physician.*

*This guideline was developed through the efforts of Children's Healthcare of Atlanta and physicians on the Children's medical staff in the interest of advancing pediatric healthcare. This guideline is a general guideline and does not represent a professional care standard governing providers' obligation to patients. Ultimately the patient's physician must determine the most appropriate care.*

*If your patient has an emergent or life-threatening condition, stop and call 911 or send him to the nearest hospital emergency department.*