


# Is It a Seizure?

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## Pediatric Seizures

**1%** of all ED visits for children <18 years old

**5%** of pediatric patients will experience a seizure by the time they are 16 years

**Put parents at ease if possible**  
1 seizure  $\neq$  seizure disorder

One pediatric prospective study of 407 patients demonstrated that 5-year recurrence rate was only about 42%.

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## Febrile Seizures

A child having a febrile seizure may

- Have a fever higher than 100.4 F (38.0 C)
- Lose consciousness
- Shake or jerk arms and legs

**While frightening for parents, usually harmless and typically don't indicate a serious health problem**

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## Absence Seizure

- This type of seizure is also called petit mal seizure
- This seizure causes a brief changed state of consciousness and staring
- Child will likely maintain posture while his or her mouth or face may twitch or eyes may blink rapidly
- The seizure usually lasts no more than 30 seconds
- Child may not recall what just occurred and may go on with activities as though nothing happened
- These seizures may occur several times a day and are sometimes mistaken for a learning or behavioral problem
- Almost always start between ages 4 to 12

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## Laughing Seizures

- Gelastic epilepsy is slightly more common in boys
- Very rare and of every 1,000 children with epilepsy, only one, or at the very most 2, children will have gelastic epilepsy
- The most common areas of the brain which give rise to gelastic seizures are the hypothalamus and the temporal lobes and the frontal lobes
- A common cause of gelastic epilepsy is a small tumor in the hypothalamus
- The majority of these tumours are benign

Gelastikos is the Greek word for laughter

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## Laughing Seizures – When to Worry

Gelastic Seizures + Precocious Puberty  $\xrightarrow{\text{likely}}$  will be found to have a hypothalamic hamartoma

It is common for older children who have gelastic epilepsy caused by a hypothalamic hamartoma to also have learning and behavioral problems

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## Epilepsy

- Prevalence – **1% of population**
- 1/3 will be “**medically refractory**” → 1/3 to 1/2 of these will be true surgical candidates
- What is **medically refractory epilepsy**?
  - Failed 2 or more AEDs at appropriate levels

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## Epileptic Seizure Types

### Generalized Epilepsies

- Absence
- Myoclonic
- Tonic-clonic
- Infantile spasms  
(West syndrome)
- Atonic-tonic  
(Lennox Gastaut)

### Partial Epilepsies

- Simple
- Complex

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# How to Distinguish Seizures from Seizure Mimics?

## History

- Onset
- Duration
- Nature of movements
- Recovery phase

## Other Helpful Specifics

- Eye movements
- Tongue biting
- Urinary incontinence in children who are toilet trained
- Presence of aura in children who are able to describe the event

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# Pediatricians Can Encourage Parents to Gather Information

**PATIENT INFORMATION SHEET / HOJA DE INFORMACIÓN DEL PACIENTE**

**Directions:** Please check (✓) what happens (or happens) during your child's seizure and bring this sheet to your child's neurology appointment.  
**Direcciones:** Por favor marque (✓) lo que sucede (o sucede) durante la convulsión de su niño(a) y traiga esta hoja con usted a la cita de neurología del niño.

**DESCRIPTION OF SPELL OR SEIZURE / DESCRIPCIÓN DEL ATAQUE O CONVULSIÓN**

**Body / Cuerpo**

whole/ entero  right/ lado derecho  left/ lado izquierdo  can't tell/ no sabría decir

**Movement/ Movimiento**

can't tell/ no sabría decir

**Eyes/ Ojos**

up/ T. arriba  closed/ cerrados  right/ a la derecha  left/ a la izquierda

stare/ mirada fija  stare and blink/ mirada fija y parpadeo  no change/ sin cambio  can't tell/ no sabría decir

**Skin Color/ Color de piel**

blue/ morado  no change/ sin cambio  can't tell/ no sabría decir

**Accident/ Accidente**

pee - pee/ orina  poop/ heces  some/ algunos  can't tell/ no sabría decir

**Mouth/ Boca**

dry/ seca  blood/ sangre  spit/ saliva  bite tongue/ se mordió la lengua  can't tell/ no sabría decir

**How Often / Frecuencia**

daily/ diariamente  weekly/ semanalmente  monthly/ mensualmente  other/ otro

**AFTER SEIZURE OR SPELL / DESPUÉS DEL ATAQUE O CONVULSIÓN**

asleep/ se duerme  drowsy/ adormido  alert/ alerta  confused/ confundido  paralyzed/ paralizado

**PATIENT INFORMATION SHEET / HOJA DE INFORMACIÓN DEL PACIENTE**

**Directions:** Please check (✓) the medications that your child takes and write in the daily dosage.  
**Direcciones:** Por favor marque (✓) los medicamentos que su niño(a) toma y escriba la dosis diaria.

**MEDICATION / MEDICAMENTOS**

Drug name / Nombre del medicamento	How supplied / Forma del medicamento	Frequency / Frecuencia
<b>Carbamazepine</b> (Carbamazepine)	<input type="checkbox"/> 200 mg <input type="checkbox"/> 300 mg	<input type="checkbox"/> 300 mg
<b>Depakene</b> (Divalproex Sodium)	<input type="checkbox"/> 250 mg <input type="checkbox"/> 500 mg	Syrup • <input type="checkbox"/> 250 mg / 5 mL <input type="checkbox"/> 500 mg - ER
<b>Depakote</b> (Divalproex Sodium)	<input type="checkbox"/> 125 mg <input type="checkbox"/> 250 mg <input type="checkbox"/> 500 mg	<input type="checkbox"/> 125 mg
<b>Diazepam</b> (Diazepam)	<input type="checkbox"/> 30 mg <input type="checkbox"/> 60 mg	<input type="checkbox"/> 100 mg
<b>Gabapentin</b> (Gabapentin)	<input type="checkbox"/> 30 mg <input type="checkbox"/> 60 mg <input type="checkbox"/> 120 mg <input type="checkbox"/> 180 mg <input type="checkbox"/> 240 mg	<input type="checkbox"/> 120 mg / 3 mL
<b>Kappa</b> (Levetiracetam)	<input type="checkbox"/> 250 mg <input type="checkbox"/> 500 mg <input type="checkbox"/> 750 mg	Liquid • <input type="checkbox"/> 100 mg / mL
<b>Klonopin</b> (Clonazepam)	<input type="checkbox"/> 0.5 mg <input type="checkbox"/> 1 mg	<input type="checkbox"/> 2 mg
<b>Lamictal</b> (Lamotrigine)	<input type="checkbox"/> 25 mg <input type="checkbox"/> 100 mg <input type="checkbox"/> 150 mg	<input type="checkbox"/> 25 mg
<b>Neurontin</b> (Gabapentin)	<input type="checkbox"/> 100 mg <input type="checkbox"/> 300 mg <input type="checkbox"/> 600 mg	<input type="checkbox"/> 600 mg
<b>Phenobarbital</b>	Liquid • <input type="checkbox"/> 20 mg / 5 mL <input type="checkbox"/> 100 mg	<input type="checkbox"/> 100 mg
<b>Topamax</b> (Topiramate)	<input type="checkbox"/> 150 mg <input type="checkbox"/> 300 mg <input type="checkbox"/> 600 mg	<input type="checkbox"/> 600 mg - ER
<b>Trileptal</b> (Oxcarbazepine)	<input type="checkbox"/> 150 mg <input type="checkbox"/> 300 mg	<input type="checkbox"/> 600 mg
<b>Zarontin</b> (Ethosuximide)	<input type="checkbox"/> 250 mg	Syrup • <input type="checkbox"/> 250 mg / 5 mL
<b>Zonagan</b> (Zonisamide)	<input type="checkbox"/> 100 mg	<input type="checkbox"/> 100 mg

**QUESTIONS & CONCERNS / DUDAS Y PREGUNTAS**

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[www.epilepsy.com](http://www.epilepsy.com)

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## What Happens After Referral?



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THE CUTTING  
EDGE  
OF PEDIATRICS



## Is It a Seizure?

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## Neurosurgery Procedures

- Open/craniotomy
- Laser ablation
- MRI-guided
- Stereotactic-guided

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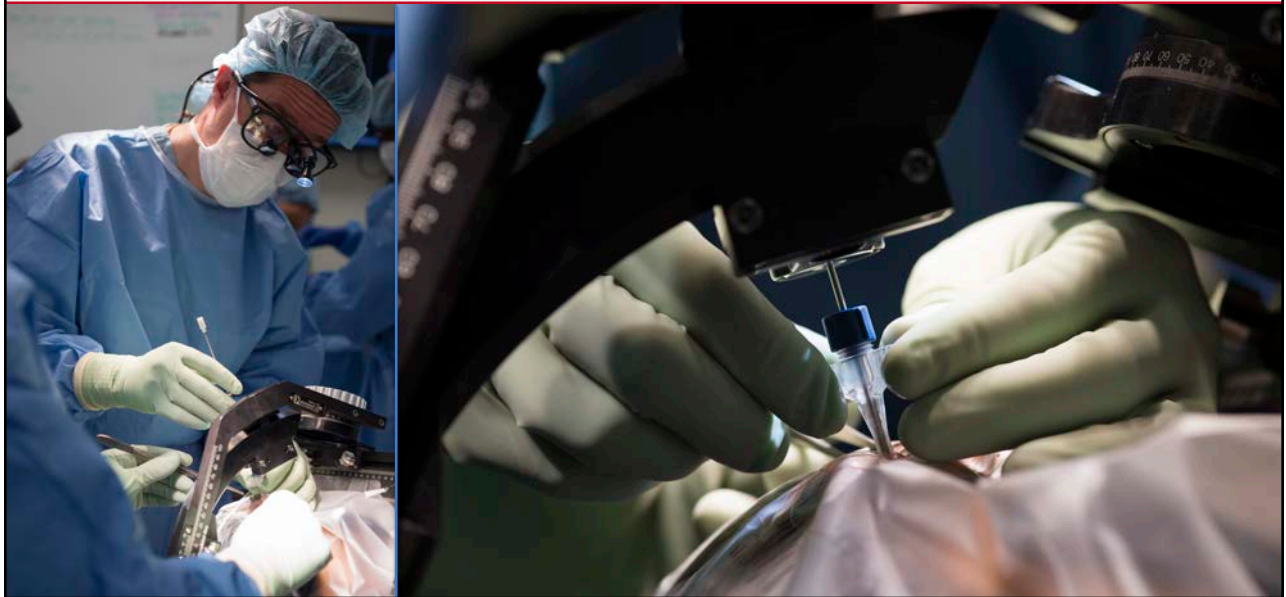


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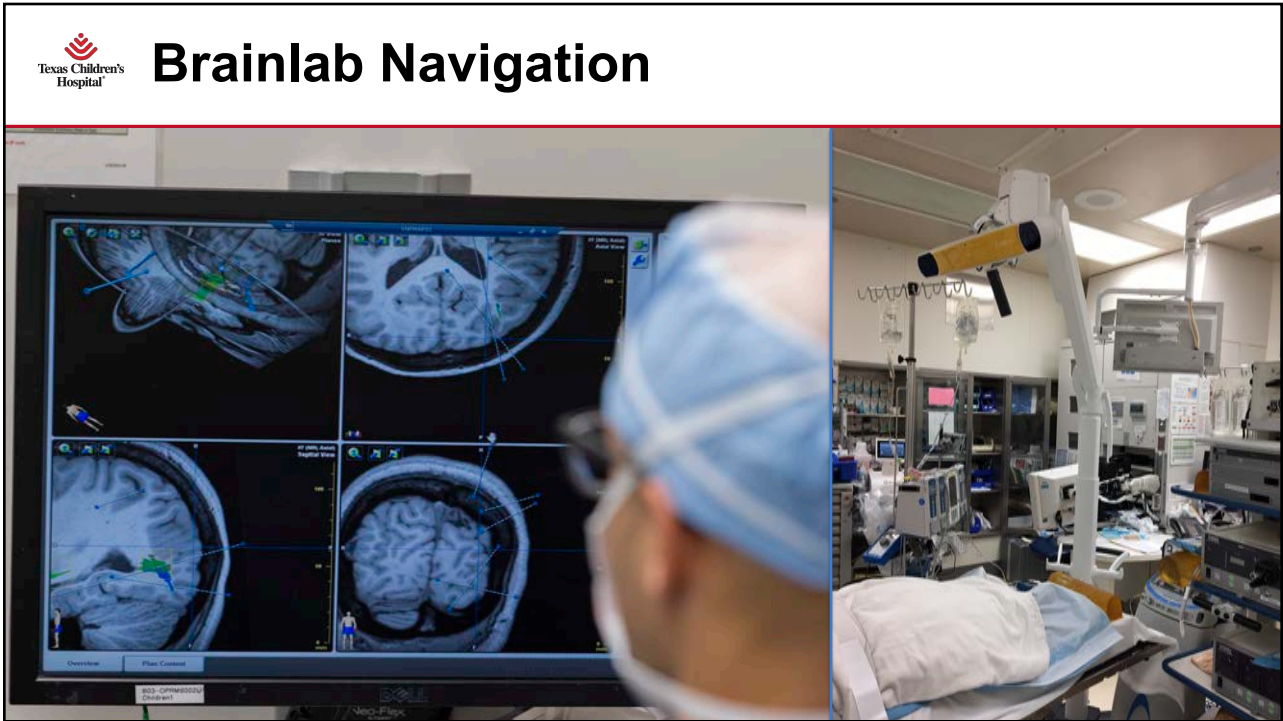
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 **Laser Ablation Surgery**



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