



# Cập nhật phân loại cơ động kinh ILAE 2025

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# Nội dung

Giới thiệu

Lý do cập nhật

Nội dung cập nhật

Giới thiệu

# Lịch sử phân loại

## 129–216 (Galenus)

- Seizures due to brain affection: *idiopathic/protopathic (primary)* vs. *sympathetic (secondary)*.
- Early differentiation between brain-origin vs extracerebral-origin causes.

## 1835–1911 (Jackson)

- Distinction of empirical vs. scientific classifications (analogy with botany).
- First anatomical conclusions based on **semiology**.

## 1890–1911 (Féré, Binswanger, Turner)

- Attempts at seizure classification by clinical description.
- Turner's proposal:
  - Minor epilepsy
  - Major epilepsy
  - Aura with/without impaired consciousness
  - Incomplete/complete convulsions
  - Psychical epilepsy

# Timeline of Epilepsy Classifications

## 1964/1969 (ILAE – First International Classification)

- First international effort using EEG insights.
- Categories: Partial, Generalized, Unilateral, Erratic in newborn, Unclassified.
- Addendum: seizure frequency (Individual, Repeated, Cyclic, Provoked, Status epilepticus).

## 1985/1989 (ILAE Syndrome Classification)

- Introduced **epilepsy syndromes** (focal vs generalized).
- Distinction between **idiopathic vs symptomatic epilepsies**.
- Added **cryptogenic epilepsy** (hidden cause)

## 2022 (ILAE syndrome classification)

Syndromes variable age of onset

## 1981 (ILAE Revision)

- More detailed revision based on expert analysis of video-recorded seizures.
- Maintained **partial vs generalized** dichotomy.

## 2017 (ILAE seizure classification)

Categories: Focal onset, Generalized onset, **Unknown onset**, Unclassified

Added etiology

Lý do cập nhật

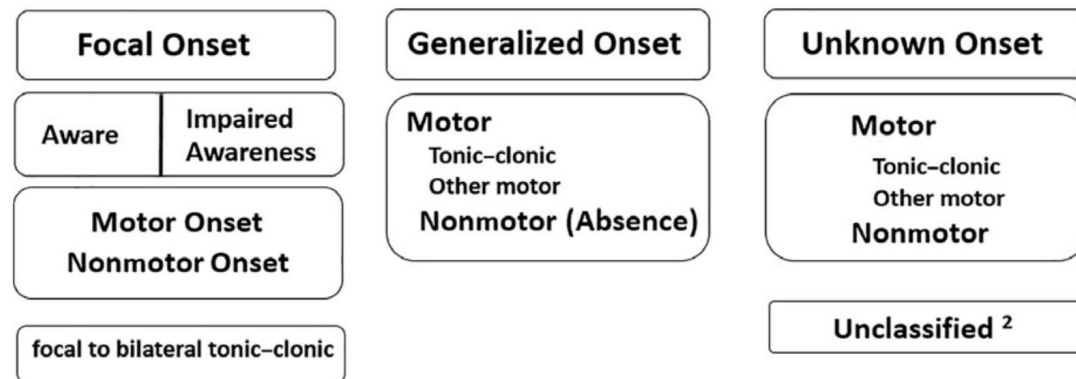
## Ủy ban cập nhật

37 chuyên gia

North America (n=7), Latin America (n=5), Europe (n=11), Eastern Mediterranean (n=2), Asia Oceania (n=9), and Africa (n=3)



## ILAE 2017 Classification of Seizure Types Basic Version <sup>1</sup>



## Ưu điểm

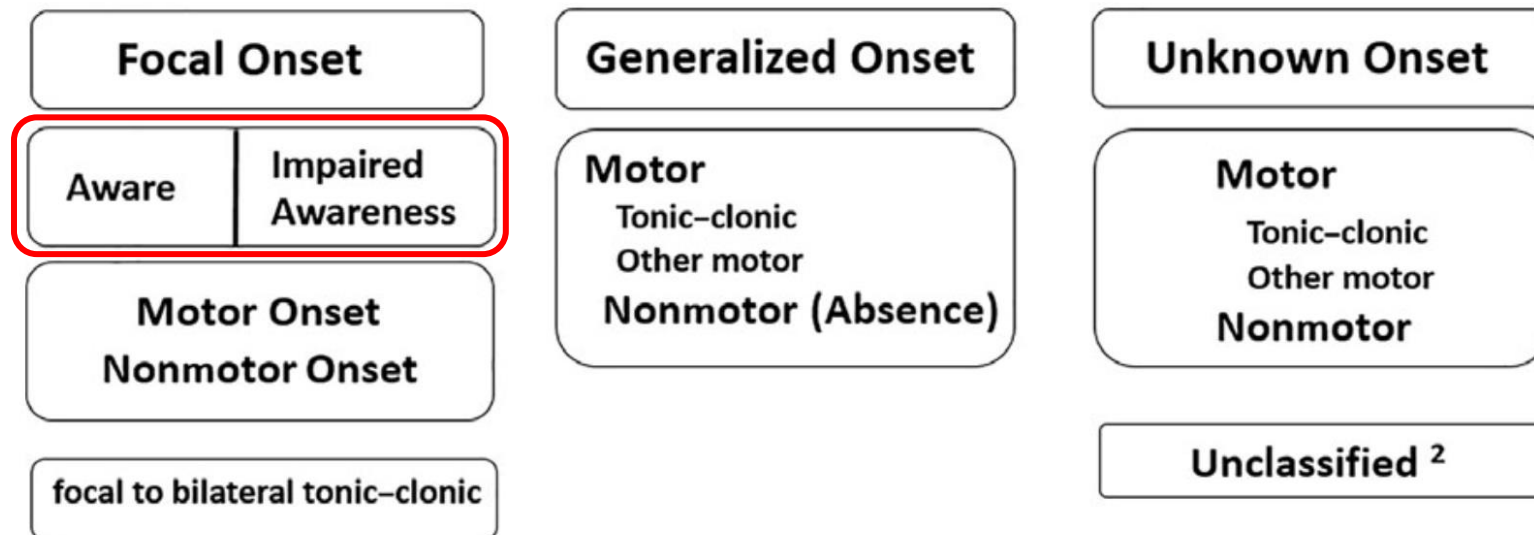
- 4 phân loại chính
- Dễ áp dụng trên thực tế lâm sàng



# Khuyết điểm

- 1981: loss of consciousness
- “Awareness” = a knowledge of self and environment.

## ILAE 2017 Classification of Seizure Types Basic Version <sup>1</sup>

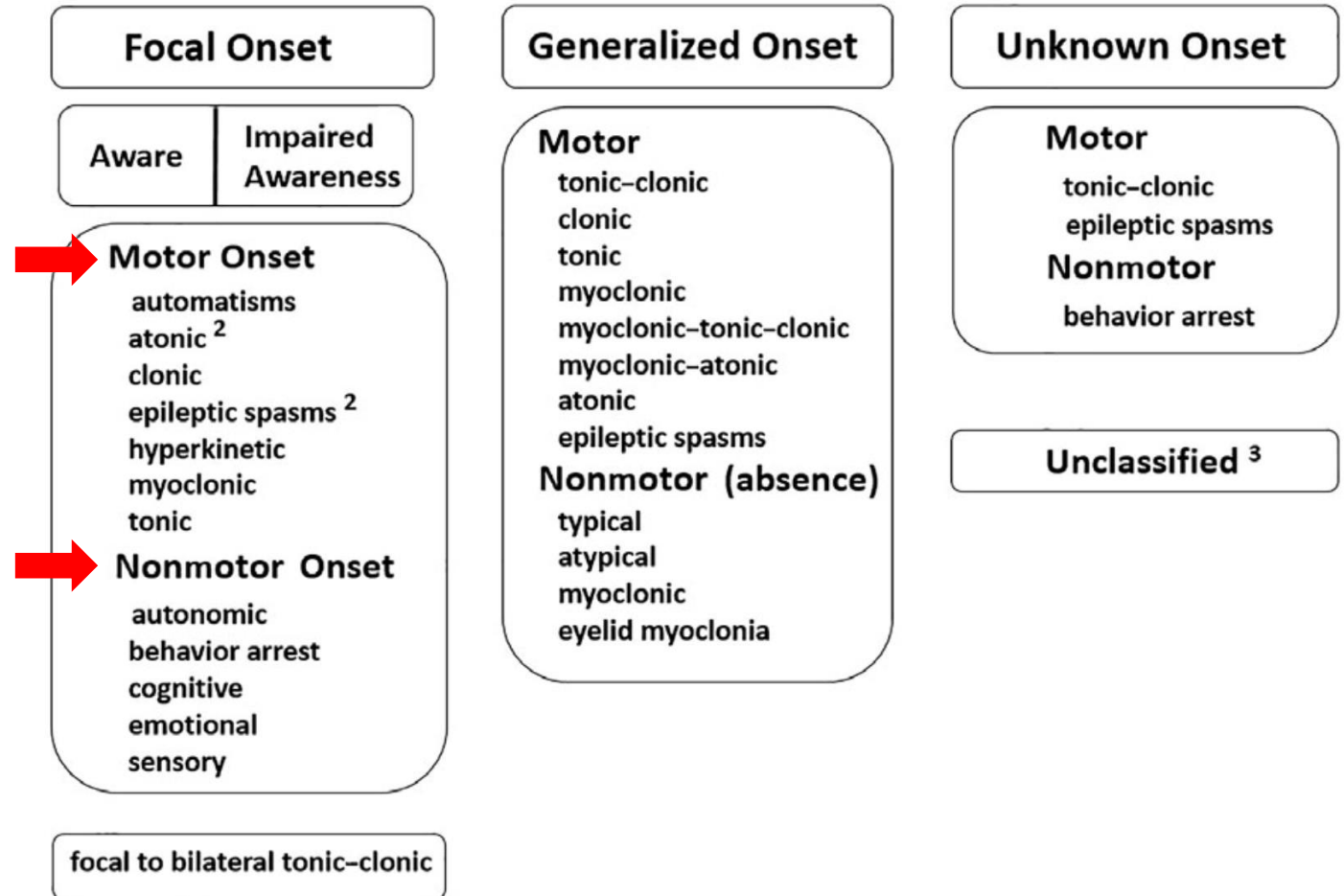


# Khuyết điểm

- The term “awareness” to classify seizures, rather than using the term “consciousness”
- Consciousness = the ability to respond and to remember.
- *Impaired consciousness* = awareness and responsiveness
- “ability to attend and perceive, to relate perception to one's own fund of personal memories, to remember recent events and to react voluntarily in response to such stimuli.”

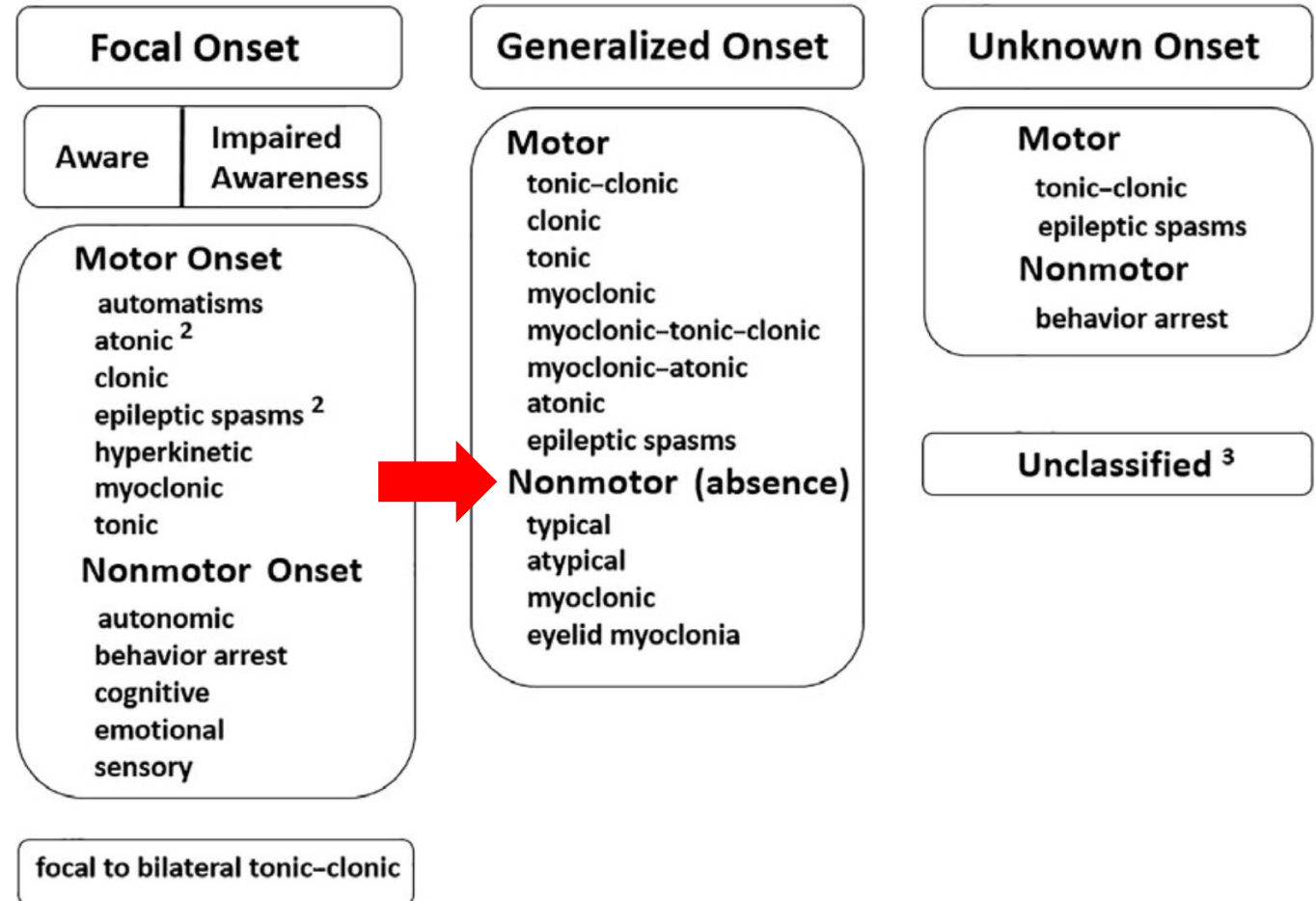
- motor versus nonmotor
- The use of the first semiological phenomenon as a classifier has shown limited clinical relevance

## ILAE 2017 Classification of Seizure Types Expanded Version <sup>1</sup>



- Absences as non-motor seizures, which is misleading
- Present observable motor phenomena such as discrete automatisms, head retropulsion, and eye blinks

## ILAE 2017 Classification of Seizure Types Expanded Version <sup>1</sup>





# “Generalized onset”

- Experimental studies in animal models and humans demonstrated the focal onset in generalized seizures, and this has been incorporated in the current ILAE definitions
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Nội dung cập nhật



# Cập nhật năm 2025

- The ILAE has updated the operational classification of epileptic seizures.
  - Adjustments were based on experience with the clinical implementation of the classification established in 2017.
  - The four main classes are: Focal, Generalized, Unknown (whether focal or generalized), and Unclassified.
  - **Consciousness** is a classifier, and it is operationally defined by awareness and responsiveness.
  - Seizures are described as with or without observable manifestations (basic) or by the chronological sequence of semiology (expanded).
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- Distinguish **classifiers**, which reflect biological classes (conceptual justification) and directly impact clinical management (utilitarian justification), from **descriptors**, which represent key seizure characteristics and indirectly aid patient management when combined with other clinical data
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# Classifier

- Level of consciousness is also a classifier for focal seizures and for seizures of unknown origin
  - Awareness → Consciousness
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# Descriptors

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- Bên trái/ phải, hai bên – đối xứng, bất đối xứng
- Phần cơ thể (tay, chân, mặt,...)

# Descriptors

Elementary  
motor

Complex  
motor

Sensory

Cognitive and  
language

Autonomic

Affective

Indescribable  
aura


Postictal

# Epileptic negative myoclonus

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- Differs from asterixis found in toxic–metabolic encephalopathies



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- Generalized seizures: Remove “non motor” when categorizing absence seizures

# Epileptic spasm

## Observation of the Seizure: Semiology

## Classification of the Seizure: **Multimodal**

- » Semiology
- » EEG
- » Imaging
- » Lab & genetics

## **Syndromic Classification & Therapeutic Decisions**

Epileptic  
spasm\*

*Unknown  
whether focal  
or generalized -  
with epileptic  
spasm\*\**

Focal  
– with epileptic  
spasm\*\*

Generalized  
epileptic  
spasm\*\*

Structural  
epilepsy  
Pharmacological  
treatment

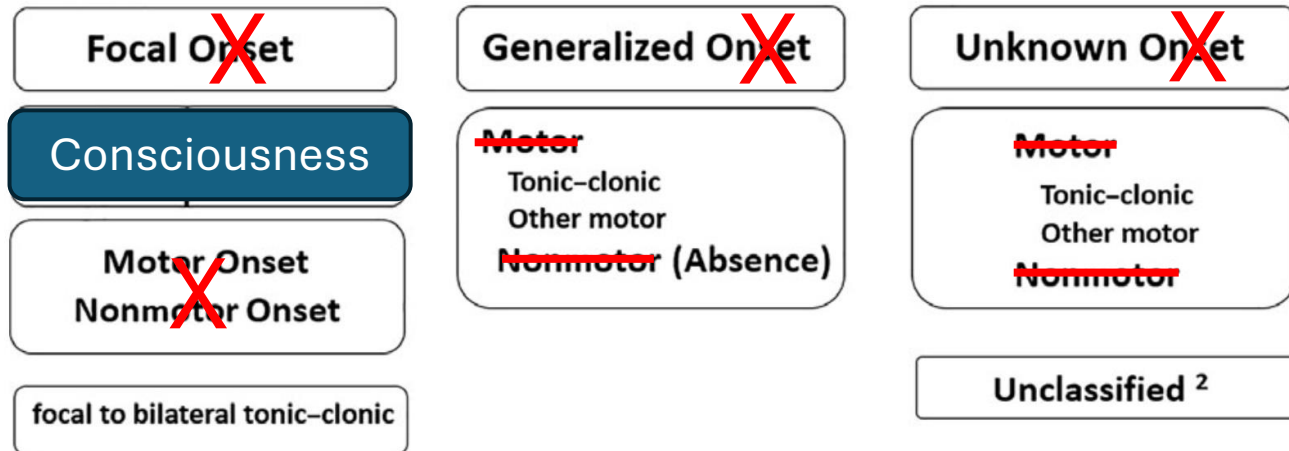
Infantile Epileptic  
Spasm Syndrome  
Pharmacological  
treatment

Consider  
early  
surgical  
treatment

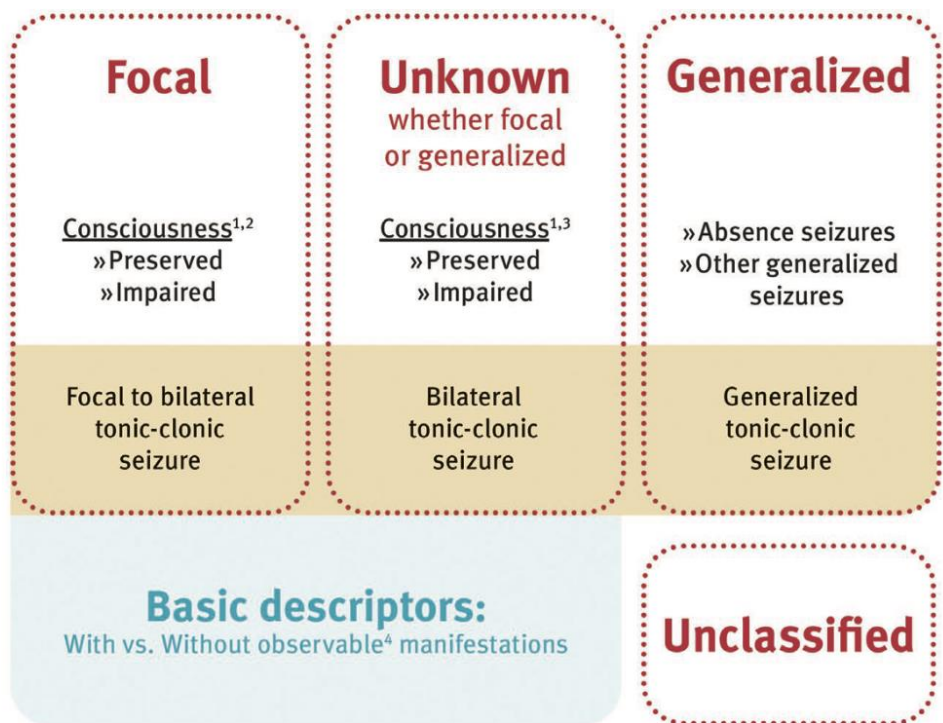


# Nội dung cập nhật

## ILAE 2017 Classification of Seizure Types Basic Version <sup>1</sup>

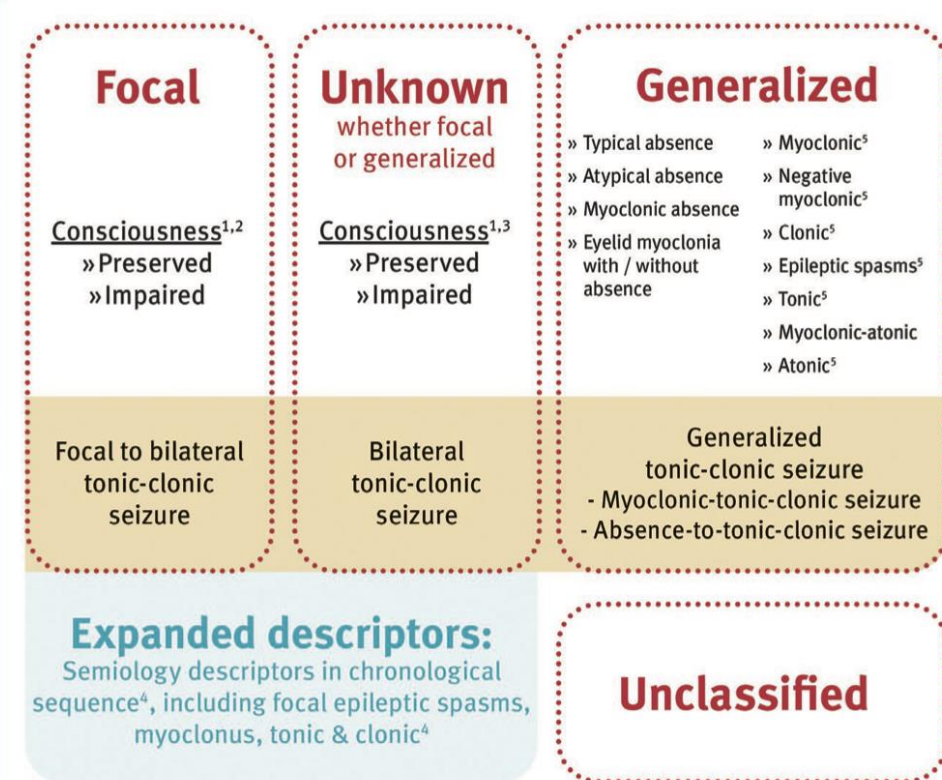


Partial seizures	<ul style="list-style-type: none"> <li>Simple partial seizure</li> <li>Complex partial seizure</li> <li>Partial seizure with secondary generalization</li> </ul>
Primarily generalized seizure	<ul style="list-style-type: none"> <li>Generalized tonic clonic seizure</li> <li>Tonic seizure</li> <li>Atonic seizure</li> <li>Myoclonic seizure</li> <li>Absence seizure</li> </ul>
Unclassified seizure	<ul style="list-style-type: none"> <li>Neonatal seizure</li> <li>Infantile spasm</li> </ul>



1. Operationally defined by awareness and responsiveness.
2. If the state of consciousness is unknown, classify as focal (without specifying the sub-classification)
3. If the state of consciousness is unknown, classify as unknown whether focal or generalized (without specifying the sub-classification)
4. Observable manifestations are readily recognized by an eyewitness. These may be motor, aphasic, autonomic or other (see Table 2). Impaired consciousness qualifies as an observable manifestation.

Main classes are in **red**, seizure types are in **black**, while descriptors are in **blue** color. The horizontal **yellow** background in the figures highlights that bilateral tonic-clonic seizures—associated with the highest morbidity and mortality—can occur in all three main seizure classes.



1. Operationally defined by awareness and responsiveness.
2. If the state of consciousness is unknown, classify as focal (without specifying the sub-classification)
3. If the state of consciousness is unknown, classify as unknown whether focal or generalized (without specifying the sub-classification)
4. Described using the terms in the ILAE semiology glossary (see table 2)
5. These phenomena may occur also in focal seizures (usually unilaterally or asymmetrically) as part of the semiology of a focal seizure.

Main classes are in **red**, seizure types are in **black**, while descriptors are in **blue** color. The horizontal **yellow** background in the figures highlights that bilateral tonic-clonic seizures—associated with the highest morbidity and mortality—can occur in all three main seizure classes.

# Bản tiếng Việt?

## Bảng phân loại ILAE 2017 về các kiểu động kinh phiên bản cơ bản<sup>1</sup>

Khởi phát cục bộ		Khởi phát toàn thể	Không rõ khởi phát
Còn ý thức	Suy giảm ý thức	Vận động Co cứng- co giật Khác Không vận động (cơ vằng)	Vận động Co cứng- co giật Khác Không vận động
Khởi phát vận động Khởi phát không vận động			
Cơ cục bộ chuyển thành co cứng co giật hai bên			Không phân loại <sup>2</sup>



# Take home message

1. “Onset” is removed from the names of the four main seizure classes.
2. A distinction is made between classifiers and descriptors. Classifiers reflect biological classes and directly impact clinical management, while descriptors characterize specific features within a seizure type.
3. “Consciousness” replaces “awareness” as a classifier. Consciousness is operationally defined by both awareness and responsiveness.
4. The motor vs. non-motor dichotomy is replaced by observable manifestations vs. non-observable manifestations.
5. Seizures are described by the chronological sequence of signs and symptoms, rather than by relying solely on the first sign.
6. Epileptic negative myoclonus is recognized as a seizure type.

## The taxonomic hierarchy of epileptic seizure classification

### 1. Focal (F)

- 1.1. Focal preserved consciousness seizure (FPC)
- 1.2. Focal impaired consciousness seizure (FIC)
- 1.3. Focal-to-bilateral tonic-clonic seizure (FBTC)

#### Descriptors

Basic:  
» With observable manifestations  
OR  
» Without observable manifestations  
Expanded:  
» Semiology descriptors in chronological sequence: Semiology (glossary)  
+ Somatotopic modifiers

### 2. Unknown whether focal or generalized (U)

- 2.1. Unknown whether focal or generalized - preserved consciousness seizure (PC)
- 2.2. Unknown whether focal or generalized - impaired consciousness seizure (IC)
- 2.3. Unknown whether focal or generalized - bilateral tonic-clonic seizure (BTC)

#### Descriptors

Basic:  
» With observable manifestations  
OR  
» Without observable manifestations  
Expanded:  
» Semiology descriptors in chronological sequence: Semiology (glossary)  
+ Somatotopic modifiers

### 3. Generalized (G)

- |  |  |
|--|--|
| 3.1. Absence seizures (AS)                           | 3.3. Other generalized seizures (grouping term—not a defined seizure type) |
| 3.1.1. Typical absence seizure (TA)                  | 3.3.1. Generalized myoclonic seizure (GM)                                  |
| 3.1.2. Atypical absence seizure (AA)                 | 3.3.2. Generalized clonic seizure (GC)                                     |
| 3.1.3. Myoclonic absence seizure (MA)                | 3.3.3. Generalized negative myoclonic seizure (GNM)                        |
| 3.1.4. Eyelid myoclonia with / without absence (EMA) | 3.3.4. Generalized epileptic spasms (GES)                                  |
| 3.2. Generalized tonic-clonic seizure (GTC)          | 3.3.5. Generalized tonic seizure (GT)                                      |
| 3.2.1. Myoclonic tonic-clonic seizure (MTC)          | 3.3.6. Generalized atonic seizure (GA)                                     |
| 3.2.2. Absence-to-tonic-clonic seizure (ATC)         | 3.3.7. Generalized myoclonic-atonic seizure (GMA)                          |

### 4. Unclassified

Expanded classifications of focal (F) and unknown (U) seizures include semiology descriptors defined and explained in the [ILAE glossary](#).

Adapted from Beniczky S., Trinka E., Wirrell E., et al. Updated classification of epileptic seizures: A position paper by the International League Against Epilepsy. *Epilepsia*. 2025; online ahead of print.