

# New clinical definition for epilepsy improves diagnosis accuracy

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An expert task force has created a new definition for epilepsy that refines the scope of patients diagnosed with this brain disease. The study published in *Epilepsia*, a journal published by Wiley on behalf of the International League Against Epilepsy (ILAE), provides a greater level of detail to diagnose epilepsy by including individuals with two unprovoked seizures, and those with one unprovoked seizure and other factors that increase risk of seizure recurrence.

The 2005 report by the ILAE task force defined an epileptic seizure as "a transient occurrence of signs and/or symptoms due to abnormal excessive or synchronous neuronal activity in the brain" and epilepsy as "a disorder of the brain characterized by an enduring predisposition to generate [epileptic seizures](#), and by the neurobiologic, cognitive, psychological, and social consequences of this condition. The [definition](#) of epilepsy requires the occurrence of at least one epileptic seizure."

"Why change the definition of epilepsy?" asks task force lead author Dr. Robert Fisher from Stanford University School of Medicine. "The 2005 definition does not allow a patient to outgrow epilepsy, nor does it take into account some clinicians' views that epilepsy is present after a first unprovoked seizure when there is a high risk for another. The task force recommendation resolves these issues with the new, more practical, definition of epilepsy that is aimed at clinicians. However, some researchers might use criteria similar to those of the older definition to facilitate comparison with prior studies."

The task force suggests that epilepsy is a disease of the brain defined as:

1. At least two unprovoked (or reflex) [seizures](#) occurring more than 24 hours apart; or
2. One unprovoked (or reflex) seizure and a probability of further seizures similar to the general

[recurrence risk](#) (at least 60%) after two unprovoked seizures, occurring over the next 10 years; or

3. Diagnosis of an epilepsy syndrome.

"The burden of determining recurrence risk does not fall on the clinician. If information is not available on recurrence risk after a first seizure, then the definition defaults to the old definition," adds Dr. Fisher. According to the article epilepsy is "resolved" in individuals who are past the applicable age of an age-dependent epilepsy syndrome, or those that have been free of seizures for the last 10 years and off anti-epileptic drugs (AEDs) for 5 years or more. The authors note that, the meaning of "resolved" is not identical to that of "remission" or "cure."

"The published definitions were supported with factual data, but in some cases medical evidence did not exist and the [task force](#) used a "consensus" approach for these definitions," explains Drs. Gary Mathern and Astrid Nehlig, Editors-in-Chief of *Epilepsia*. In these instances, the editors are asking readers' opinions adding, "We encourage you to go to <http://surveys.verticalresponse.com/a/show/1539433/ea840f4206/0> to share your feedback regarding the new definition of [epilepsy](#)."

**More information:** A Practical Clinical Definition of Epilepsy." Robert S. Fisher, Carlos Acevedo, Alexis Arzimanoglou, Alicia Bogacz, J. Helen Cross, Christian E. Elger, Jerome Engel Jr, Lars Forsgren, Jacqueline A. French, Mike Glynn, Dale C. Hesdorffer, B.-I. Lee, Gary W. Mathern, Solomon L. Moshé, Emilio Perucca, Ingrid E. Scheffer, Torbjörn Tomson, Masako Watanabe, and Samuel Wiebe. *Epilepsia*; Published Online: April 14, 2014 ([DOI: 10.1111/epi.12550](#)).

Editorial "From the Editors: Names Count—The New Operational Definition of Epilepsy and Epilepsia's Poll." Gary Mathern and Astrid Nehlig. *Epilepsia*;

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