

Study reports seizure-freedom in 68 percent of juvenile myoclonic epilepsy patients

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A 25-year follow-up study reveals that 68% of patients with juvenile myoclonic epilepsy (JME) became seizure-free, with nearly 30% no longer needing antiepileptic drug (AED) treatment. Findings published today in *Epilepsia*, a journal of the International League Against Epilepsy (ILAE), report that the occurrence of generalized tonic-clonic seizures preceded by bilateral myoclonic seizures, and AED polytherapy significantly predicted poor long-term seizure outcome.

Patients with JME experience "jerking" of the arms, shoulders, and sometimes the legs. Previous evidence suggests that JME is a common type of [epilepsy](#) (in up to 11% of people with epilepsy), occurring more frequently in females than in males, and with onset typically in adolescence.. There is still much debate among experts over the long-term outcome of JME, and about which factors predict seizure outcome.

To further investigate JME outcomes and predictive factors, Dr. Felix Schneider and colleagues from the Epilepsy Center at the University of Greifswald in Germany studied data from 12 male and 19 [female patients](#) with JME. All participants had a minimum of 25 years follow-up which included review of medical records, and telephone or in-person interviews.

Sixty-eight percent of the 31 JME patients became free of seizures, and 28% discontinued AED treatment due to seizure-freedom. Significant predictors of poor long-term seizure outcome included: occurrence of generalized tonic-clonic seizures (GTCS - formerly known as grand mal

seizures) that affect the entire brain and which are preceded by bilateral myoclonic [seizures](#) (abnormal movements on both sides of the body and a regimen of AED polytherapy.

Researchers also determined that [remission](#) of GTCS using AED therapy significantly increased the possibility of complete seizure-freedom. However, once AED therapy is discontinued, the occurrence of photoparoxysmal responses (brain discharges in response to brief flashes of light) significantly predicted an increased risk of seizure recurrence.

"Our findings confirm the feasibility of personalized treatment of the individual JME patient," concludes Dr. Schneider. "Life-long AED therapy is not necessarily required in many [patients](#) to maintain seizure freedom. Understanding the predictors for successful long-term seizure outcome will aid clinicians in their treatment options for those with JME."

More information: "Predictors for Long-Term Seizure Outcome in Juvenile Myoclonic Epilepsy: 25-63 Years Of Follow-Up." Julia Geithner, Felix Schneider, Zhong Wang, Julia Berneiser, Rosemarie Herzer, Christof Kessler and Uwe Runge. *Epilepsia*; Published Online: June 6, 2012 ([DOI: 10.1111/j.1528-1167.2012.03526.x](https://doi.org/10.1111/j.1528-1167.2012.03526.x)).

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