

Long-term study shows epilepsy surgery improves seizure control and quality of life

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While epilepsy surgery is a safe and effective intervention for seizure control, medical therapy remains the more prominent treatment option for those with epilepsy. However, a new 26-year study reveals that following epilepsy surgery, nearly half of participants were free of disabling seizures and 80% reported better quality of life than before surgery. Findings from this study—the largest long-term study to date—are now available in *Epilepsia*, a journal published by Wiley-Blackwell on behalf of the International League Against Epilepsy (ILAE).

More than 50 million individuals worldwide suffer from seizures caused by [epilepsy](#) according to a 2001 report by the World Health Organization (WHO). Medical evidence shows that compared with the general population, epilepsy [patients](#) have significantly poorer health-related [quality of life](#), higher rates of co-morbidities, and lower rates of employment, marriage, and education levels. Previous studies found that while a majority of those with epilepsy do respond to antiepileptic drugs, over 30% patients are refractory to [medical therapy](#).

"In cases where medical therapy fails to control seizures, epilepsy surgery is a safe and effective [treatment option](#)," explains lead author Dr. Matthew Smyth with Washington University School of Medicine in St. Louis, Missouri. "Despite the increase in the number of epilepsy surgeries performed, and reports in the medical literature of the success of surgery relative to medication, it remains an underutilized therapy for seizure control." A 2001 study estimated that less than 0.1% of the more

than 4 million people worldwide who could benefit from epilepsy surgery actually receive the intervention.

To advance understanding of long-term seizure control rates, researchers analyzed data of seizure and quality of life outcomes for 361 patients who underwent epilepsy surgery between 1967 and 1990; Dr. Sidney Goldring, a prominent neurosurgeon and pioneer of epilepsy surgery, performed the procedures. Patients were then surveyed to assess seizure control and quality of life.

Of the 361 patients, 117 completed follow-up interviews for the study and 48% were determined to be free of disabling [seizures](#). On a survey assessing the quality of life for those with epilepsy, 80% of patients reported their overall quality life was better than before the surgery. As the authors expected, surgical complications and mortality following surgery declined over the long-term. No statistically significant association between postoperative complications and long-term seizure control or quality of life outcomes was observed.

"Our findings demonstrate that the benefits of epilepsy surgery are sustained over long time periods," concludes Dr. Smyth. "Increased use of surgical intervention offers patients with epilepsy the possibility of long-term [seizure control](#) and improved quality of life."

More information: "Impact of Epilepsy Surgery on Seizure Control and Quality of Life: A 26-year Follow-up Study." Hussan S. Mohammed, Christian B. Kaufman, David D. Limbrick, Karen Steger-May, Robert L. Grubb Jr., Steven M. Rothman, Judy Weisenberg, Rebecca Munro, Matthew D. Smyth. *Epilepsia*; February 7, 2012 ([DOI:10.1111/j.1528-1167.2011.03398.x](https://doi.org/10.1111/j.1528-1167.2011.03398.x)).

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