

# Epilepsy surgery has good effect

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Patients with drug-resistant epilepsy run the risk of gradual deterioration in their cognitive abilities. Surgical treatment generally puts an end to seizures but can have a negative effect on memory. However, there is no further deterioration in memory, and some patients may even recover some of their memory capacity, reveals a thesis from the University of Gothenburg.

In a study carried out at the Sahlgrenska University Hospital in Gothenburg, one group of 36 patients were given medication for their epilepsy while a second group of 51 patients underwent surgery. There was also a control group of healthy volunteers. All of the participants underwent a series of tests, including intellectual capacity, memory, attention and mental processing speed.

The group treated with medication was followed up after five years.

"We found that the members of this group had more cognitive difficulties than members of the control group, and their memory, attention and processing speed had also deteriorated relative to the control group," explains Lena Andersson-Roswall, registered psychologist and member of the Epilepsy Research Group at the Institute of Neuroscience and Physiology at the University of Gothenburg.

The surgically-treated patients were followed up after two and ten years. It emerged that these patients' [cognitive abilities](#) did not decline between the two follow-ups.

"But verbal memory can be affected by surgery in the left temporal lobe. We also saw deterioration in these patients two years after surgery, but after ten years these memory problems had not worsened, although it did vary from person to person."

The thesis also finds evidence of partial recovery of memory function in some patients.

Andersson-Roswall believes that it is important that patients with drug-resistant epilepsy are given an opportunity to be investigated for suitability for epilepsy [surgery](#) at an early stage of the disease, and that they are offered regular cognitive evaluations whatever the treatment.

"The results of our study can be used in investigations to advise on possible surgical treatment of those with drug-resistant [epilepsy](#)."

Provided by University of Gothenburg

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