

Laser ablation surgery helps treat young man's epilepsy.

Epilepsy is a neurological condition where the normal electrical activity of the brain is disrupted, causing a seizure. It's fairly common. According to the Epilepsy Foundation, 1 in 26 people have the disorder. Trevor Thompson is one.

When medications failed to control his seizures, Trevor went looking for help. He found it at Mayo Clinic.

Narrator:	Like a lot of 20-year-old guys, Trevor Thompson is into sports and working out.
Trevor Thompson Patient	"Got a hockey game tomorrow night at 10 p.m. I'm planning to go to. I've been lifting weights and go into the gym."
Narrator:	But Trevor's active lifestyle came to a screeching halt while he was driving his truck.
Trevor Thompson Patient	"I started to feel a little lightheaded like you do if you get up too fast. And then my head sort of moved up and to the left, and I remember seeing the clouds. And then it was like, you know, snap. I wasn't there anymore."
Narrator:	Out of the blue, Trevor had an epileptic seizure. Now how seizures manifest can vary. Some people lose awareness, while others have uncontrolled movements, known as convulsions or spasms.
JONATHON PARKER, M.D., PH.D. NEUROSURGERY Mayo Clinic	"Epilepsy can really affect anyone across the age spectrum. Sometimes it can start earlier on in life and get worse over time. Sometimes it can present late in life, and it just has to do with the type of epilepsy and the underlying cause of epilepsy."
Narrator:	For most people, medication therapy can help control the seizures. But when drugs are not effective, surgery may be an option. In Trevor's case, doctors at Mayo Clinic used advanced imagery to find the cause of the seizures.

Trevor Thompson:	"Started doing imaging. They were able to tell us pretty quickly what was going on."
Jonathon Parker, M.D., Ph.D.	"We saw a very specific abnormality. We designed a very precise laser ablation to ablate just the smallest amount of brain that we needed to stop his seizures."
Narrator:	Laser ablation is a less invasive procedure that uses a laser to pinpoint and destroy a small portion of brain tissue that's causing the seizures. During surgery, doctors used magnetic resonance imaging, or MRI, to guide the laser. Patients typically have a shorter hospital stay and recover more quickly. Laser ablation is just one of several surgical options to treat epilepsy.
Jonathon Parker, M.D., Ph.D.	"The options that we have are changing. They're improving year after year, and definitely in the last 10 to 15 years, epilepsy surgery has transformed into what I would say is a much more precise, minimally invasive set of techniques and approaches. We can design a personalized approach from a surgical perspective that maximizes their function and optimizes their quality of life."
Trevor Thompson:	"I'm really excited to get back to living the way I always have — all positive, all looking up. Here we are, seizure-free now. So, you know, they did their job, and all's well that ends well."
Narrator:	For the Mayo Clinic News Network, I'm Joel Streed.