



When the seizures don't stop: Anthony's battle against drug-resistant epilepsy

Video	Audio
	(nat sound) You can usually find 19-year-old Anthony Maita (May-tuh) hanging out with his dog Buddy, working on his computer or checking on his garden.
	(nat sound)
	Life was good until one afternoon.
Anthony Maita Patient	"I started having seizures, at least noticeable seizures."
	"I just remember them saying 'Are you OK? Are you OK?' then I saw his eyes go back. I'm still traumatized by it."
	Doctors tried controlling Anthony's seizures with medications but nothing worked. Eventually he was diagnosed with drug-resistant epilepsy or DRE – a condition that affects millions worldwide. The seizures can make daily living a challenge and even be life-threatening.
Patricia and Tony Maita Anthony's mom and dad	"His lips would be blue, and his mouth would be blue."
	Anthony's family turned to Mayo Clinic where a team of researchers in Arizona were conducting the first-in-human clinical trial of a potential new treatment for DRE using implanted brain cells. Anthony became Mayo's first patient to undergo the investigational therapy.
	"I'm in it honestly to help people."
	Epilepsy occurs when there is an electrical imbalance in the brain. Certain brain cells, called interneurons, can help regulate brain activity by releasing something called Gamma-Aminobutyric Acid or GABA. GABA is a neurotransmitter that is crucial in regulating brain activity. The clinical trial is

	investigating whether these interneurons can be implanted into the brain directly where the seizures originate.
Jonathon Parker, M.D., Ph.D. Neurosurgery	"With the hope that over time these cells become part of the brain and part of the body and then start to repair that broken circuit."
	To pinpoint that broken circuit, Mayo used a cutting-edge MRI machine called the 7 Tesla which created ultra-high-resolution images of Anthony's brain. With Anthony under general anesthesia, a team of experts guided a thin canula into his brain depositing the interneuron cells into the seizure-zone in a one-time, single dose.
	(nat sound)
	Anthony was discharged from the hospital the next day.
	"I had no trouble with it personally."
	Doctors are keeping a close eye on Anthony's progress. For now, Anthony says he's feeling good and back to doing the things he loves, with hope in his heart.
	"Other than not having to deal with it, I also hope other people won't have to deal with it in the future."
	For the Mayo Clinic News Network, I'm Marty Velasco Hames.