

Mayo Clinic Minute: What is a 'brain pacemaker?'

VIDEO	AUDIO
Dr. Zimmerman	"It's kind of like a pacemaker for the heart, but instead, we use it for the brain."
	Mayo Clinic neurosurgeon Dr. Richard Zimmerman is talking about a device called a responsive neurostimulator, or RNS therapy. It's implanted in a patient's skull with electrodes placed on the brain.
	The device not only monitors and records a patient's brain waves, it also prevents seizures or reduces their severity.
Richard Zimmerman, M.D. Neurosurgery Mayo Clinic	"It's able to detect where the seizure starts at its earliest point, and then begins to stimulate, or give therapy, to the brain in response to that early seizure. And it tries to stop it from progressing or spreading to the rest of the brain."
	The pulses of stimulation happen within milliseconds of seizure activity. Patients can't feel it, and it doesn't cause pain.
Dr. Zimmerman	"There's an algorithm in the computer chip that's in the device that's implanted into the patient that detects when those electrical impulses are abnormal."
	It's another option for patients with epilepsy who don't respond to anti-seizure medications or surgery to remove where seizures start in the brain.
Dr. Zimmerman	"In terms of excitement for this device, there's a huge amount of potential going forward. And the really beneficial thing is that it helps the quality of life for patients."
	For the Mayo Clinic News Network, I'm Jason Howland.