

J15 Pacemaker for Epilepsy

April 2009

Intro: Epilepsy is a disease that can control your life. For example, the man you're about to meet had to give up his driver's license, his job and much of his social life because of uncontrolled seizures. But a new device being researched at Mayo Clinic is giving him hope. It's like a pacemaker for your brain that may stop seizures before they happen.

Video

Total running time 1:38

CG :10 to :14

**Mike McKenna
Has epilepsy**

Audio

MIKE MCKENNA IS BACK IN SCHOOL. AFTER YEARS OF WORKING AS A BUILDING CONTRACTOR, SEVERE EPILEPSY HAS HIM LEARNING NEW SKILLS AND LOOKING FOR A NEW JOB. "IT CHANGED MY LIFE COMPLETELY. I HAVEN'T DRIVEN FOR ABOUT SEVEN YEARS NOW. " MEDICATIONS DON'T HELP HIS SEIZURES. "THEY HAPPEN IN MY SLEEP. ABOUT EVERY TWO WEEKS FOR THE BIG ONE AND THEN I HAVE LITTLE SMALL ONES THAT HAPPEN A LOT DURING THE DAY"

MIKE DOESN'T WANT SURGERY
BECAUSE REMOVING THE AREA OF
THE BRAIN WHERE HIS SEIZURES
ORIGINATE WOULD BE RISKY.
DESPERATE FOR HELP, MIKE
ENROLLED IN A STUDY AT MAYO
CLINIC WHERE DOCTORS
IMPLANTED AN ELECTRICAL
STIMULATION DEVICE INTO HIS
BRAIN.

CG :40 to :46

Joseph Sirven, M.D.

Mayo Clinic

“RESPONSIVE
NEUROSTIMULATION. IT'S A
DEVICE THAT'S CURRENTLY IN
RESEARCH TRIALS AT THIS TIME.”
DR. JOSEPH SIRVEN SAYS THE
DEVICE IS LIKE A PACEMAKER FOR
YOUR BRAIN. YOU SEE, AN
EPILEPTIC SEIZURE IS AN
ABNORMAL ELECTRICAL
DISTURBANCE OF THE BRAIN. THE
DEVICE IS IMPLANTED UNDER THE
SKIN AND FOUR ELECTRODES ARE
ATTACHED TO THE OUTER LAYERS

OF YOUR BRAIN. THE DEVICE
MONITORS BRAIN WAVES AND
WHEN IT SENSES ABNORMAL
ELECTRICAL ACTIVITY IT FIRES
ELECTRICAL STIMULATION AND
STOPS THE SEIZURE.

Joseph Sirven, M.D.
Mayo Clinic

“IT’S ALMOST LIKE SHOCKING THE
SEIZURE AWAY.”

BECAUSE MIKE’S IN A CLINICAL
TRIAL THAT’S TESTING THE
EFFECTIVENESS AND SAFETY OF
THE DEVICE, HE WASN’T INITIALLY
TOLD IF HIS IMPLANT HAS BEEN
TURNED ON YET. BUT HE HAS HIGH
HOPES FOR THE TECHNOLOGY.

“I HOPE THAT I CAN HAVE THIS
THING CONTROL MY SEIZURES
EVEN JUST A LITTLE BIT.”

SO HE CAN REGAIN CONTROL OF
HIS LIFE. FOR MEDICAL EDGE, I’M
VIVIEN WILLIAMS.

Anchor tag:

Dr. Sirven says this device has not yet been approved by the Food and Drug Administration for use in the U.S. But if the trial shows it decreases the severity and frequency of seizures, Dr. Sirven says many people with epilepsy will then have another option for controlling their disease.

For more information, visit our Website at... [STATIONS: Per the licensing agreement, please provide a link from your station's website to <http://www.mayoclinic.org> or voice tag "mayoclinic.org" for more information.]