



Henry Ford COMPREHENSIVE EPILEPSY CENTER



NEUROSCIENCE
INSTITUTE

Epilepsy is the fourth most common neurological disorder in the United States, affecting an estimated 2.2 million Americans. Henry Ford epileptologists and neurosurgeons offer novel therapies to help patients achieve a seizure-free life.

INNOVATIVE EPILEPSY CARE

The Comprehensive Epilepsy Center at Henry Ford provides one of the nation's leading medical teams focused on the diagnosis, treatment, and research of epilepsy and seizure disorders. Henry Ford's Epilepsy Center has been designated a level 4 center, the highest certification by the National Association of Epilepsy Centers. The 7-bed epilepsy monitoring unit (EMU) at Henry Ford Hospital and the 4-bed EMU at Henry Ford West Bloomfield Hospital are managed by the same physician leaders for the highest level of quality and patient safety.

ADVANCED TECHNIQUES TO LOCALIZE EPILEPSY FOCI

- Magnetoencephalography – Henry Ford is one of 29 centers in the United States and the only one in Michigan with a MEG system
- Video EEG, 3T MRI and PET
- Neuropsychology studies
- Wada testing
- Implantation of intracranial electrodes

NIH MASTER CONTRACT AND CLINICAL TRIALS

- Newest anti-seizure medications
- Birth defects associated with epilepsy medications
- Seizure localization
- Neurostimulation implant therapies

INDICATIONS FOR EVALUATION AT AN EPILEPSY CENTER

Seizure control is defined as having no seizures with altered consciousness over the past year. The National Association of Epilepsy Centers recommends referral to an epilepsy center if:

- Seizures are not controlled after treatment for one year
- Seizures continue after trying two or more medicines or the patient has bothersome side effects
- The person wishes to learn about non-medicine ways of treating seizures
- The person has concerns about how epilepsy affects his or her health and daily life
- The person is pregnant or wants to become pregnant

*To learn more or refer a patient,
call (877) 434-7470 or visit
henryford.com/rpo.*

EPILEPSY SURGERY CAN REDUCE OR ELIMINATE SEIZURES

For the most severe forms of epilepsy, an outcomes study of 470 temporal and extratemporal epilepsy surgery cases over a 15-year period at the Henry Ford Comprehensive Epilepsy Center recently showed that surgery significantly reduced or eradicated seizures. The study reported that resective epilepsy surgery resulted in favorable seizure outcomes in 73 percent and seizure freedom in 28 percent of patients.

EPILEPSY SURGERY IS UNDERUTILIZED

- Only 4,000 patients get epilepsy surgery in the United States each year – while up to 200,000 people are candidates.
- Many epilepsy patients don't know about surgical options, given their restrictions on driving and difficulty in attending support groups.
- Many patients have an inherent fear of brain surgery.

NEWER, LESS-INVASIVE EPILEPSY TECHNOLOGIES

ROSA™ Robot

Henry Ford was the third center in the United States to perform stereotactic placement of depth electrodes (sEEG) using the ROSA robot. ROSA allows for a much shorter and safer surgery, with less risk for bleeding, infection and anesthesia complications. This technology reduces a 10-hour case to about an hour and a half.

RNS® System

For the last decade, Henry Ford has been a lead institution in a responsive neurostimulation clinical trial. The technology – developed by NeuroPace, Inc., and recently approved by the FDA – uses an implantable device that detects and responds to seizure onset with electrical stimulation, similar to a defibrillator.

Visualase®

This minimally invasive technique uses laser ablation to destroy a targeted area of the brain that is causing seizures. A flexible laser fiber is guided into the targeted area through a small hole in the skull, then MRI guidance is used to monitor the temperature in the brain ensure that only the target area is ablated.



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HENRY FORD EPILEPSY CENTER EXPERIENCE

4,000
patient visits annually

3,000
EEG studies annually

500
epilepsy surgeries over
20 years

300
EMU admissions annually