

# Hoag Epilepsy Center: providing leading-edge diagnosis and advanced treatment options for seizure disorders

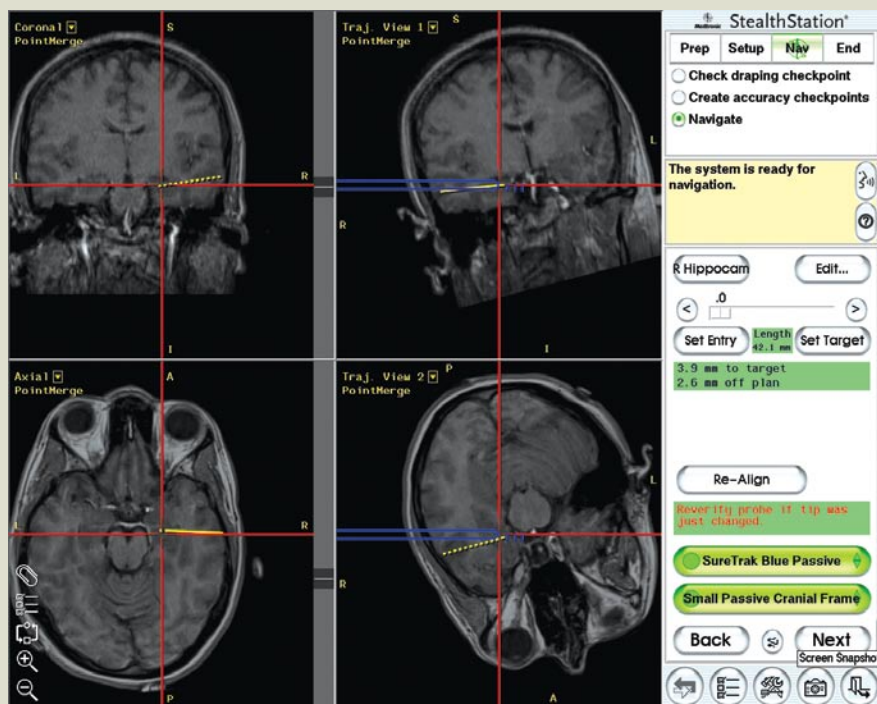
Hoag Epilepsy Center provides an individualized, comprehensive approach to the diagnosis, treatment, management and research of epilepsy and seizure disorders. The Center's multidisciplinary team of neurologists, neurosurgeons, neuropsychologists, nurses and technicians is dedicated to providing the safest, most effective and least invasive treatments to help patients achieve the highest functionality.

## Diagnosis

“Most epilepsy patients' seizures can be successfully managed with medication or even eliminated with surgery,” explains Neurosurgeon Richard Kim, MD, MS, medical director of Hoag Epilepsy Center. “Therefore, we encourage patients to undergo an evaluation at an epilepsy center like Hoag with fellowship trained epileptologists and neurosurgeons armed with the most sophisticated diagnostic technology.”

When patients are referred to Hoag Epilepsy Center, evaluations begin with a thorough exam and medical history, followed by a complete diagnostic workup.

Utilizing state-of-the-art imaging techniques such as high resolution MRI, MR spectroscopy, functional MR, and PET, Hoag's epilepsy specialists can accurately identify the patient's specific type of seizure and the region of the brain where the seizures originate.



Targeting for the placement of a depth electrode into the hippocampus for epilepsy monitoring.

When in-depth study of a patient's seizures is required, Hoag's Epilepsy Monitoring Unit is equipped with the latest technology and a highly trained staff of physicians, nurses and technicians who evaluate the patient's seizures over time. During the hospital stay, the patient is under constant visual observation while electrical activity of the brain, other physiological changes and video monitoring of the body's movements during seizures are recorded.

Once the cause of a patient's epilepsy is determined, treatment can be tailored to manage and control seizures.

## Medical management

More than 60% of patients can be well controlled and managed with antiepileptic medications. Hoag's specialists consider each patient's disease and lifestyle in determining which medications to prescribe.

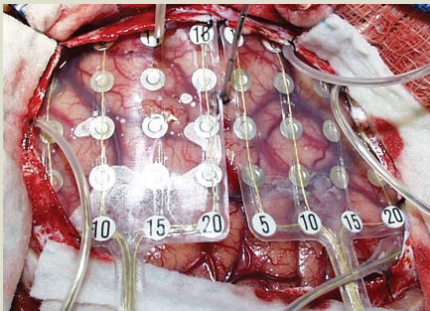
And since many antiepileptic medications have side effects and drug interactions, Hoag specialists work closely with patients and their primary care physician to continually manage drug therapy and discuss new drug trials when available.

“For those patients who have failed two antiepileptic drugs, their chances of responding to a third or a combination are slim,” Dr. Kim asserts. “These patients can benefit from an evaluation at Hoag Epilepsy Center, where further medical therapies can be considered and surgical options explored.”

### Surgical interventions

When seizures cannot be controlled with medication alone, Hoag offers the latest techniques in surgical intervention.

“Surgery can often reduce or eliminate seizures and even allow some patients to cease antiepileptic medication therapy,” describes Dr. Kim. “Surgery is the only cure for epilepsy, as it eliminates the seizures by removing the segment of the brain causing the condition.”



*Stereotactically guided electrode placement through computer navigation.*

To locate the exact location of the brain causing seizures, Hoag specialists employ state-of-the-art neuronavigational technology and sophisticated magnetic resonance imaging techniques, which provide enhanced visualization of the pathology. Using this information,

combined with the surgeon’s skills in functional brain mapping both prior to and during surgery, Hoag neurosurgeons are able to successfully reach and resect the seizure areas safely.

For non-surgical candidates and for patients whose seizures are refractory to antiepileptic medications, Hoag specialists also perform vagus nerve stimulation (VNS). Implanted under the skin below the left collar bone, the VNS generator delivers low-level intermittent nerve stimulation to the vagus nerve to effectively block seizures from occurring in a good percentage of individuals.

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### To Refer a Patient

*To refer a patient or for more information on Hoag Epilepsy Center, please call 949/764-8319.*

## Resources for your patients

- > For those who experience their first seizure as an adult, epilepsy can pose restrictions on work and driving that have major impacts on a person’s lifestyle. Hoag Epilepsy Center assists patients with new onset seizures by providing appointments for evaluation and diagnosis usually within one week.
- > And to help patients deal with the struggles epilepsy poses on daily life, Hoag Epilepsy Center also sponsors an interactive epilepsy support group led by a master’s trained licensed facilitator. The support group meets the first Wednesday of each month on the hospital campus and provides a forum for adolescent and adult patients, their families and friends.

## Partnering with referring physicians

- > Hoag epileptologists work closely with referring physicians to optimize care for their patients, providing thorough communications on the patient’s care and allowing the referring physician to choose their level of involvement.