COMPREHENSIVE EPILEPSY PROGRAM PATIENT GUIDE TO STEREO-EEG

Stereoelectroencephalography (sEEG) is an

intracranial surgical procedure that is used to identify areas of the brain where epileptic seizures start. With sEEG, doctors place electrodes in specific brain areas, which are then monitored to identify the location where seizures start. When the seizure focus is found, other surgeries that can significantly improve or even stop your seizures are possible.

If you or a loved one has found no medical or surgical option for uncontrollable epileptic seizures, you may want to know more about this new technique.

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Patients who can benefit from sEEG

sEEG may help you if you:

- Have focal epilepsy with seizures that do not respond to medications.
- Have seizures, but doctors aren't sure where they start.
- Are a potential candidate for epilepsy surgery.

2 Patients who cannot benefit from sEEG

If you have a generalized epilepsy, sEEG is not an option.

3 Advantages of sEEG

- Minimal access surgery for seizure localization: to place the electrodes, the surgeon makes 10 to 20 small incisions in the scalp with minimal blood loss.
- Placement takes 5 to 6 hours and requires general anesthesia; removal of the electrodes is a simple procedure and takes 10 to 15 minutes under local anesthesia.
- Can identify seizure onset areas that are deep in the brain.
- Can cover large areas of the brain and monitor both sides of the brain.



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Duration of hospital stay

- After surgery, patients go to our Epilepsy Monitoring Unit, where they are observed (by EEG and video) for seizure activity. We have dedicated monitoring units staffed around the clock with teams of specialists and equipped with the latest technology.
- The average stay is two weeks, but some patients may remain longer to gather the necessary localizing information.

Next steps after a sEEG

Once we collect more accurate information about where the seizures are coming from with sEEG, we may discuss what type of surgery may improve or even stop your seizures.

For additonal information, please call:

813-259-8577

Learn more epilepsy.usf.edu



WHAT TO EXPECT BEFORE, DURING AND AFTER A STEREOELECTROENCEPHALOGRAPHY (sEEG)

ONE TO FOUR WEEKS BEFORE SURGERY:

You will undergo a brain MRI, CT scan, and lab work.

DAY OF SURGERY

- You will meet with the anesthesiologist, who will administer general anesthesia.
- A stereotactic frame will be placed on your head.
- A computed tomography (CT) scan will be performed.
- Doctors will use all this information as they plan to place electrodes in the part of your brain where they think your seizures are originating.
- Once doctors have placed the electrodes, the head frame will be removed. You will be awakened and transported to the recovery area.
- A postoperative CT scan will be performed in the recovery room.
- You will be transferred to the Epilepsy Monitoring Unit, where the electrodes will be connected to monitoring equipment that will record your brain activity.
- The head frame used during the procedure may cause some discomfort on your head and neck muscles, jaw soreness and headaches with sensitivity to light after your procedure. These symptoms usually go away within days and are lessened with medications such as Tylenol.

NEXT ONE TO FOUR WEEKS

- The length of seizure monitoring varies, depending on the frequency of your seizures, but usually lasts no longer than a month. In general, we want to see 3 or more of the same type of seizure.
- After recording is completed, the electrodes will be removed under local anesthesia and sedation, usually in the operating room. This typically takes 10-15 minutes.
- You will be discharged approximately 6 hours after the electrodes are removed, during which the nurses will watch you to make sure that you are safe to go home
- You will be provided with instructions to return in two weeks for an incision check.
- Your recorded data will be reviewed, and the epilepsy specialists will form a plan for additional epilepsy surgery to help reduce or stop your seizures, if possible.
- Four to six weeks later you will meet with the neurosurgeon/epilepsy specialist to discuss further options. This "recovery" period will give time to heal and allow for better results and fewer complications after surgery.

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