

Seizure Focus Resection for Epilepsy

University Neurosurgery Information Sheet

General Indications for the Procedure:

Often, epilepsy may not be controlled medically. The indications for this sort of operation are medically uncontrolled epilepsy. To better control epilepsy, surgery may be recommended to remove a portion of brain tissue causing the seizures.

Description of the Procedure:

The procedure itself usually involves general anesthesia, but occasionally is done under sedation in cases where the surgery is close to speech areas. An area of the scalp is then shaved, a skin incision is made and an area of the skull is opened in a procedure called a craniotomy. This skull bone is then replaced at the end of surgery. The dura, a covering that separates the brain from the skull, is then opened and a sterile EEG is then performed. Based on all of the information that has been gathered, the area of the brain that is causing the seizures is then carefully removed. This is done in such a way as to minimize risk of neurological injury and maximize the likelihood of seizure relief. At the end of the procedure, everything is closed and a sterile dressing is applied.

Risks of Procedure:

General risks of any operation of this nature include infection, bleeding and anesthesia. There are also specific risks based on the location of the seizure focus. Depending on the area of seizure focus resection, the trade off may be potential risks for new deficits such as memory or cognitive loss, visual loss, speech difficulty, numbness, weakness, stroke or even coma or death. The occurrence of such risks in most cases is quite low, but still present.

Procedure Alternatives, if any:

The alternative to surgical treatment would be continued medical treatment with the potential risk that it will not work, as well as side effects and risks of the medical therapy.

Probable Consequences of Refusing the Procedure:

Current symptoms will persist and may worsen.

Person(s) Performing the Procedure:

The surgical team for this procedure is large. This involves, but is not limited to, the attending surgeons, resident surgeons, surgical nurses, physician assistants, surgical technologists and anesthesiologists. Everyone involved will be performing important tasks related to the surgery in accordance with the hospital policies, and based on their skill set and under the supervision of the responsible practitioners.