Answers to your epilepsy surgery questions
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Who is a candidate?
• Determined by the epileptologist or neurologist
  – Based on response of seizures to medicines
  – Based on results of pre-surgical workup
• Pre-surgical workup includes
  – Anatomic imaging (MRI, CT, etc.)
  – Electrical recordings (EEG)
  – Neuropsychological testing
  – Other tests

Why should you have epilepsy surgery?
• To gain control of drug resistant seizures
• Growing literature suggests surgery is superior to medicines for some types of epilepsy
• Gaining control of drug resistant seizures reduces mortality, establishes independence, and improves overall quality of life

What types of epilepsy surgery are there?
• Epilepsy surgery is variable and depends on the underlying source of the seizures
• Most procedures involve removing a damaged or malformed area of the brain responsible for seizures
• The most common adult procedure is temporal lobectomy
• The most common pediatric surgery is extratemporal “lesionectomy”

I’ve heard about temporal lobectomy…What exactly is it?
• The procedure is our most common and most successful surgery to stop seizures arising from the temporal lobe
• These seizures are often very similar from patient to patient and may cause staring spells and repetitive movements of the mouth or hands
• The surgery involves removal of 3-4 cm of temporal lobe tissue often including an area called the hippocampus. This tissue is usually damaged and causes the seizures to occur

What do I expect after temporal lobectomy?
• The procedure itself takes 4 hours
• Once surgery is completed, the patient remains in a closely monitored environment (ICU) overnight and then spends another two to three days in the hospital
• Recovery at home takes 6-8 weeks before routine physical activity is back to normal

What to expect?
• Additionally, many patients experience headaches and jaw pain for two to three months
  Most of the time they are relieved with over the counter medicines
• The language temporal lobe (left) has special language and memory functions in it. If the epilepsy is arising here, memory and naming problems often occur and can sometimes be made worse with surgery. Most of the patients do not notice a problem different than before surgery.

**When do I see results?**

• We would like to say immediately following surgery you are seizure free. Unfortunately, we do not have a test to prove this.
• Time must pass!
• At 6 months after surgery with no seizures, you will be given a series of tests to help us determine if you are a candidate for driving and medicine reduction.
• Only a minority of seizure free patients are able to taper off the anti seizure medicines completely.
• If 5 years go by without seizures you are considered “cured”

**What are the complications?**

• Most epilepsy surgeries involve craniotomy or removal of a portion of the skull and surgery within brain tissue.
• Risks include but are not limited to infection, bleeding and transfusion, and damage to brain tissue causing permanent loss in neurologic function. Fortunately, these risks are usually less than 5%.
• Risks and benefits of each surgery will be discussed in detail with each patient as they are individual to the patient’s type of epilepsy.

**Anatomy of Mesial Temporal Lobe Structures**

[Diagram of brain structures: hippocampus and brainstem]
Post operative magnetic resonance imaging following right temporal lobectomy