When the diagnosis is epilepsy, you need more than just effective treatment. You need a team of seasoned professionals with training in the diagnosis and treatment of epilepsy in people of all ages — including intractable (difficult-to-treat) seizures. You need specialists who understand that epilepsy is a lifelong condition that can affect self-esteem, sexuality, and cognitive function. And you need an epilepsy center that not only offers therapies based on the latest medical advances, but features researchers who are making new advances themselves. That center is the Weill Cornell Epilepsy Center. What sets us apart?

- **National Designation:** Our center is a Level 4 Comprehensive Epilepsy Center, a prestigious designation by the National Association of Epilepsy Centers and the highest rank attainable.
- **A Team Approach:** Our epileptologists (doctors with specialty training in epilepsy), neurosurgeons, nurses, social workers, and neuropsychologists work with you and your family to customize your treatment plan.
- **Part of a Renowned Medical Center:** As a division of the internationally renowned Neurology, Neurosurgery, and Pediatrics Departments of NewYork-Presbyterian/Weill Cornell Medical Center, we provide access to the vast resources of one of the country’s most prestigious and sophisticated hospitals.
- **A Commitment to Research:** Our physicians are investigating a variety of new treatments. You may have the opportunity to participate in a clinical trial of a promising new therapy.
How We Diagnose Epilepsy

Accurately pinpointing the type, location, severity, and frequency of your seizures is essential for us to choose the most effective therapy for you. To diagnose epilepsy, we conduct tests such as:

- **EEG:** Electroencephalography (EEG or the “brain wave test”) is the cornerstone of every evaluation for epilepsy. Long-term ambulatory EEG testing in your home and inpatient seizure monitoring using simultaneous EEG recording and television images (“video-EEG”) are also available.

- **Intracranial Monitoring:** Our neurosurgeons have great experience placing electrodes inside the brain to pinpoint where seizures begin, safely and accurately. We now use “stereo-EEG” whenever possible, a less invasive approach which enables the surgeon to implant small electrodes in the skull through a two-millimeter incision.

- **Other Tests:** We also use MRI, positron emission tomography (PET) scanning, neuropsychological testing, and the Wada test (to determine where your brain controls language and memory) to assess your seizures.

Personalized Treatment

Armed with the results of your diagnostic testing, our specialists tailor a plan of treatment designed to control your seizures.

**MEDICAL THERAPIES**

We may try several different types of anti-seizure medications until we find the regimen that works best for you, based on your needs and risk factors. For several decades, the Weill Cornell Epilepsy Center has been a leader in the evaluation of new anti-seizure medications. You may also be able to participate in a clinical trial of a new medication.

**EPILEPSY SURGERY**

If medications are not sufficient for controlling your seizures, you may be a candidate for surgery — the only known cure for epilepsy. Our neurosurgeons are known for their expertise in minimally invasive procedures.

- **Microsurgery:** Since many types of epilepsy arise from small areas of the brain, it’s possible for neurosurgeons to identify and remove these areas to cure epilepsy. We identify these areas using non-invasive imaging or invasive methods such as subdural grid placement. Additionally, the areas involved in producing seizures may be deeper than what can be detected on a grid, and we can put several depth electrodes in place to better localize these abnormal areas. When we cannot identify any specific areas, we can “disconnect” large areas of the brain producing seizures.

- **Minimally Invasive Surgery:** For people with clearly localized seizure sites (foci) that may be difficult to access with traditional surgery, we offer minimally invasive techniques such as laser interstitial thermal therapy (LITT) and stereotactic radiosurgery (SRS) — allowing the surgeon to attempt to eliminate the seizure focus without making a large opening in the skull.

- **Device Implantation:** Some people with seizures that cannot be treated with surgery, radiation, or laser ablation are candidates for neuromodulation. We implant a small pacemaker-like device to stimulate the nervous system and reduce the frequency and severity of seizures. There are two types of devices: a vagal nerve stimulator (VNS), which is implanted under the skin in the chest, and the responsive neurostimulator (RNS), which is implanted in the skull and directly stimulates the brain if abnormal electrical activity occurs.

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A Comprehensive Program for Children and Teens

If your child is experiencing seizures or was recently diagnosed with epilepsy, our Pediatric Comprehensive Epilepsy team at NewYork-Presbyterian/Phyllis and David Komansky Center for Children’s Health at Weill Cornell Medical Center offers personalized care that meets your needs. Our comprehensive services include a team of pediatric epilepsy specialists; a dedicated inpatient pediatric epilepsy monitoring unit; customized treatment with anti-seizure medications, neuromodulation, or surgery; and nutritional guidance (such as how to follow a high-fat ketogenic diet or a low glycemic index diet). As your child gets ready to leave the teen years, we work with him or her and with our adult epilepsy treatment specialists to facilitate the gradual transition from pediatric to adult care.