



Banner Baywood
Medical Center

NEUROSCIENCES

Neurodiagnostic procedures by leading experts

The Neurodiagnostic Department at Banner Baywood Medical Center offers various neurodiagnostic testing procedures with registered technologists that have more than 50 years of combined experience.

Our physicians are board certified in Neurology, Transcranial Doppler (TCD) and Epileptology. They specialize in seizure disorders, electromyography, and long-term EEG monitoring.

The types of testing we offer at include:

- **EEG:** Defined as a risk-free, non-invasive, passive recording of the electrical signals from the brain. An EEG of the brain is similar to an EKG, which records the electrical activity of the heart.
- **Ambulatory EEG:** May include video and may last for 24 hours or more. The ambulatory study is an extended recording of the electrical activity of the brain. This study records brain activity while the patient continues with many of the normal activities of daily living.
- **Video monitoring:** This is used as an enhancement to the routine EEG. This may allow the clinician to differentiate between tremors and seizure activity. Video monitoring allows for the observation of patient behavior side by side with electrical activity in the brain.
- **NCV:** A nerve conduction velocity test is an electrical test that is used to determine the adequacy of the conduction of the nerve impulse as it courses down a nerve. This test is used to detect signs of nerve injury.
- **TCD:** Transcranial Doppler is a test that measures the velocity of blood flow through the brain's blood vessels. This is used to help in the diagnosis of emboli, stenosis and vasospasm or bleeding from a ruptured aneurysm.
- **EMG:** Electromyography is a technique for evaluating and recording the electrical activity produced by skeletal muscles. An electromyography detects the electrical potential generated by muscle cells and the signals can be analyzed to detect medical abnormalities.

