

COGNISION

FACTS

- Cognitive disorders that cause a decline in memory and other brain functions can be difficult to diagnose, especially in the early stages.
- Cognision is a highly useful diagnostic software program that allows the provider to measure the cognitive function of the human brain quickly and accurately.
- The test increases the ability of the provider to diagnose Alzheimer's disease and related cognitive disorders.
- The three components of the Cognision test are audiometry, event related potentials (ERP), and electroencephalogram (EEG).

TEST PREPARATION

- The Cognision test is done at the Memory & Movement Charlotte office.
- Please arrive 15 minutes prior to the scheduled testing time.
- Come with clean, dry hair without any products, including hair spray/gel.
- The one-hour test takes place in a quiet room, seated comfortably and causes no discomfort.
- Family members are asked to wait in the lobby area.
- Residue from the gel used during testing may be left on the scalp. It washes away with water.
- Please bring a comb or brush for grooming after the test if desired.

TEST COMPONENTS

Audiogram

- The audiogram determines the ability to hear. Hearing loss can impair cognitive function.
 - The audiogram also helps determine if the person has an inability to comprehend sounds which can be associated with Alzheimer's disease.
- Test procedure:
 - Soft ear plugs are gently placed in the ear canal.
 - Six sound frequencies are transmitted through the ear plugs.
 - The person is asked to push a button whenever they hear a tone.

ERP

- The ERP measures brain waves associated with memory, language, attention, concentration and several other brain functions.
- Test procedure:
 - A webbed cap is placed over the person's head and soft gel contacts are pressed gently on the scalp.
 - Similar to the audiogram, the person is asked to push a button when a specific tone is heard.
- The brain wave values generated during the test are compared to normal values as well as those seen in Alzheimer's and related disorders. This comparison allows the provider to determine if a cognitive disorder is present.

EEG

- The EEG measures brain waves that reflect memory and cognitive function.
- Test procedure:
 - The person is asked to keep their eyes closed and rest while brain waves are recorded.
- The brain waves are evaluated by the provider to look for markers associated with Alzheimer's and related disorders.

TEST RESULTS

- A neurologist at MMC will analyze the Cognision results and create a report.
- The provider will review the results of Cognision at the next scheduled appointment. It is important for the provider to discuss the results and correlate the findings with patient and caregiver interviews, physical exam, and any lab or imaging reports.
- The test may be normal, ruling out the presence of Alzheimer's disease or related disorders at the time of testing.
- If the Cognision is abnormal at the time of testing then a true physiologic reduction in some aspect of brain function is present. This supports follow up appointments over time to monitor for progressive decline associated with Alzheimer's disease. A repeat Cognision study in one year may be recommended.
- The Cognision abnormalities may be completely supportive of the presence of Alzheimer's disease at the time of testing.