

Electroencephalogram – EEG

Questions: 319-861-7778

What is an EEG?

An EEG's formal name is Electroencephalogram. It is a diagnostic test that detects electrical impulses in the brain giving important information about its health and functioning. Scalp electrodes record the electricity that naturally occurs within the cortex or outer shell of the brain. Data is displayed as waveforms and stored digitally on a computer for a neurologist to review and interpret.

Why should I have an EEG?

There are many reasons for having an EEG:

- Epilepsy and seizure disorders
- CVA
- Dementia, confusion or memory loss
- Episodes of unresponsiveness or altered mental status
- Head trauma

Procedure:

There is no pain involved with an EEG. Twenty-two surface electrodes that resemble tiny metal disks on the ends of wires are attached to the scalp with special glue. The hook up process takes approximately 30 minutes. Once hooked up, patients are instructed to remain relaxed, quiet and still throughout the procedure and to keep their eyes closed.

The technologist is located in an adjacent room with the recording equipment. Instructions are given over an intercom to the patient to open and close their eyes several times at the beginning and also at the end of the recording. Some patients are asked to hyperventilate or breath rapidly for a several minute time period and most patients have a strobe light flashed over their closed eyes at different speeds.

Sleep is desirable but we do not sedate for an EEG as it affects the brain waves. Sometimes it is necessary to deprive the patient of sleep prior to being tested. This is done instead of sedation to capture the change in electrical activity when transitioning from wakefulness to sleep. Abnormalities associated with seizure disorders are more likely to appear in this transition period.

The recording time will be a minimum of 20 minutes. Electrodes are removed with a solvent and the majority of glue residue is cleaned out of the hair. Any remaining glue will wash out after several shampoos.

After a neurologist's interpretation of your data is complete, a report is sent to the referring physician who will discuss any findings and follow up care with you.

Preparation:

ALL PATIENTS: Please arrive with clean dry hair and scalp. Refrain from use of hair products such as hairspray, gel, oil, or mousse. Take medications as you normally would unless instructed differently by your physician. Arrive sleep deprived, with 5 hours or less of sleep (cutting normal sleep hours in half is ideal). Avoid caffeine all day.

SEIZURE OR EPILEPSY PATIENTS: Avoid caffeine and naps the day of testing. Only get a maximum of 6 hours sleep the night before.

INFANTS AND TODDLERS: It's helpful if parents are able to assist staff in the holding of the child for electrode placement. Please try to limit number of family members and siblings coming along to minimize stimulus to the patient. It's also helpful if the child has a bottle, favorite blanket or stuffed animal with them.

Please bring a photo ID

Outpatient Registration

Please arrive 5 minutes prior to your scheduled procedure. Park in the Mercy Medical Center Parking Ramp, located at the corner of 8th Street and 8th Avenue SE. Enter through the North Entrance, take elevator C to the 4th floor, and go to your left, where you will see signs for "Neurodiagnostic." Please check in with the receptionist, to sign registration paperwork.

Your appointment date and time:

Procedure date: _____

Procedure time: _____