



Sleep Disorders
Neuroscience

ELECTROENCEPHALOGRAM (EEG)

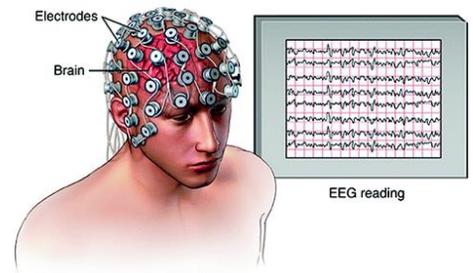
What is an EEG?

An electroencephalogram (EEG) tracks and records the electrical activity in the brain (brain wave patterns). Electrodes (small flat metal discs) are attached to the scalp with wires. The electrodes analyze the electrical impulses in the brain and send signals to a computer that records the results.

Why is an EEG performed?

An EEG can be used to help detect potential problems associated with the brain electrical activity. Any irregularities may be a sign of certain brain disorders, including:

- seizure disorders (such as epilepsy)
- sleep disorders
- stroke
- dementia
- memory problems
- head injury
- brain tumor
- encephalitis (inflammation of the brain)
- encephalopathy (disease that causes brain dysfunction)



Are there risks associated with an EEG?

There are no risks associated with an EEG. The test is painless and safe.

If an EEG does not produce any abnormalities, stimuli such as strobe lights, or rapid breathing may be added to help induce any abnormalities. When someone has epilepsy or another seizure disorder, the stimuli presented during the test (such as a flashing light) may cause a seizure. The technician performing the EEG is trained to safely manage any situation that might occur.

How do I prepare for an EEG?

Before the test, you should take the following steps:

- ❑ Wash your **hair** the night before the EEG, and don't put any products (like sprays or gels) in your hair on the day of the test.
- ❑ Avoid eating or drinking anything containing **caffeine** for at least eight hours before the test.
- ❑ Your doctor may ask you to **sleep** as little as possible the night before the test if you have to sleep during the EEG. You may also be given a sedative to help you relax and sleep before the test begins.
- ❑ Ask your doctor if you should stop taking any medications before the test. You should also make a list of your **medications** and give it to the technician performing the EEG.

What can I expect during an EEG?

The routine EEG test usually takes 30 to 60 minutes to complete. While continuous video EEG takes several days to complete.

Specialized technicians administer EEGs at Neuro Synchrony lab, and It involves the following steps:

1. You'll lie down on your back in a bed.
2. The technician will measure your head and mark where to place the electrodes. These spots are scrubbed with a special cream that helps the electrodes get a high-quality reading.
3. The technician will put a sticky gel adhesive on 16 to 25 electrodes, and attach them to spots on your scalp.
4. Once the test begins, the electrodes send electrical impulse data from your brain to the recording machine. This machine converts the electrical impulses into visual patterns that appear on a screen. A computer saves these patterns.
5. During the test, very little electricity passes between the electrodes and your skin, so you'll feel very little to no discomfort.
6. The technician may instruct you to do certain things while the test is in progress. They may ask you to lie still, close your eyes, breathe deeply, or look at stimuli (such as a flashing light).
7. After the test is complete, the technician will remove the electrodes from your scalp.