

# What is an EEG (Electroencephalography)?

*"All righty Mr Smith. Go ahead and close your eyes and relax."*

An electroencephalogram, or EEG, is a test that measures the electrical activity in your brain. It looks for problems with the signals your nerve cells use to communicate. These signals are called brain waves.

*"We use it to diagnose seizures or epilepsy. We also use it for dementia or stroke, and it's also good sometimes for encephalitis or other infections of the brain."-Dr. Gary M. Weiss, MD, Neurologist*

Your provider might ask you to stay awake the night before the test if you're being evaluated for a sleep disorder, so you can sleep during the test. Also, you may be asked to avoid coffee, tea, soda, chocolate and other foods with caffeine for 8 to 12 hours before the test because caffeine can affect the accuracy of your results. On the night or morning before your test, shower and wash your hair. Just don't use any conditioner, hair spray, or gel. These products can affect the stickiness of the patches that will be attached to your scalp. After you arrive, a technician will mark several spots on your head, where the small metal disks—called electrodes—will be placed.

The electrodes, which are connected to long wires, will be attached to your scalp. Each one has a little bit of paste on it to help it stick. Or, you might wear a cap with the electrodes already in it.

*"You're going to come over here to this recliner."*

The electrodes and wires are connected to the EEG machine. The machine measures electrical activity in your brain and displays it on a computer screen as waves with a regular pattern. Any problems with your brain activity can change these patterns.

*"We're looking for specific things like sharp waves and spikes which are indications of seizures. Or do they have too much slow activity which would be something we'd see in dementia for example."- Dr. Gary M. Weiss, MD, Neurologist*

*"I'll record you for about six minutes."*

The technician will start the test by having you close your eyes and relax. Your test might also include some simple activities.

*"The technician might ask you to perform a few tasks to activate brain activity, like looking at a series of flashing lights or reading a passage from a book."-Joan Davis, Neurodiagnostic Technician*

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When the test is done, your technician will remove the electrodes and wash the paste off your scalp.

*"Their skin might be a little red where the electrodes were placed, but it will fade within a few hours. You should be able to go right back to your normal activities right after the test."* - Joan Davis, Neurodiagnostic Technician

*"There may not be anything left to do if it's normal. If we find something abnormal on the EEG, we're probably going to want to do some further testing."* - Dr. Gary M. Weiss, MD, Neurologist