

Electroencephalogram

(EEG)

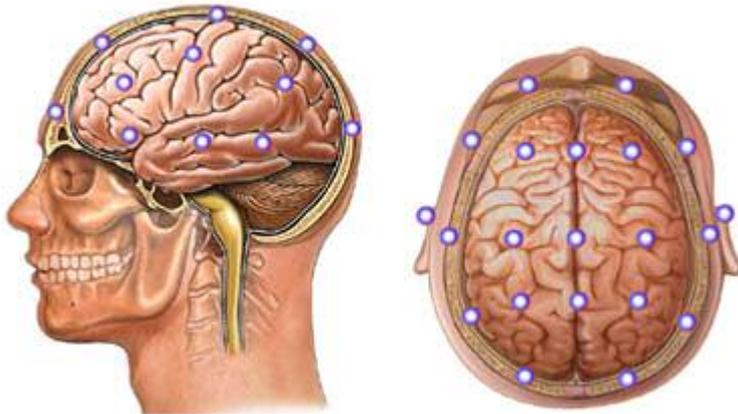
by [Editorial Staff and Contributors](#)

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Definition

The electroencephalogram (EEG) is a test that uses sensors to evaluate electrical brain activity.

Placement of Sensors for an EEG



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Reasons for Test

An EEG may be done for the following reasons:

- To help diagnose [seizures](#)
- To assess brain function affected by certain conditions and diseases, such as:
 - [Trauma](#)
 - [Coma](#)
 - Brain infection ([encephalitis](#))

What to Expect

Prior to Test

Depending on the reason for your EEG, you may be given some of the following instructions:

- Ask your doctor whether to stop any medicines, such as stimulants, prior to the test.
- Avoid [caffeine](#) for eight hours before the test.
- Shampoo your hair the day of the test. Do not use hairspray or gel that day.

- If you are having a sleep-deprived EEG, you may need to stay awake the night before the test. You should also arrange for a ride to and from the test.
- If you are prone to seizures, arrange for a ride to and from the test.

Description of Test

You will sit in a chair or lie on a cot. Electrodes will be attached to your scalp with special gel or paste. The electrodes will record the brain's electrical activity. You will be asked to close your eyes and be still for most of the test. You may be asked to breathe deeply and rapidly. A strobe light may also be used for a portion of the test. In some cases, the doctor will make a video recording of the test.

After Test

The technician will remove the electrodes, and you will be able to go home.

Talk to your doctor about restarting any medicines you may have stopped.

How Long Will It Take?

About one hour. In some cases, an EEG is done overnight, either at home or in the hospital

Will It Hurt?

No, an EEG is painless.

Results

Your test results will be interpreted by a neurologist. Your doctor will receive a report within 1-2 weeks of your test. Discuss the results with your doctor.

Call Your Doctor

After the test, call your doctor if any of the following occurs:

If you have a seizure disorder and you have a change in your regular seizure pattern once you have restarted your anti-seizure medicine

RESOURCES:

Epilepsy Foundation

<http://www.epilepsyfoundation.org/>

National Institutes of Health

<http://www.nih.gov/>

CANADIAN RESOURCES:

Epilepsy Canada

<http://www.epilepsy.ca/>

Epilepsy Ontario

<http://www.epilepsyontario.org/>

REFERENCES:

EEG (Electroencephalogram). KidsHealth website. Available at: <http://kidshealth.org/parent/general/sick/eeg.html#>
. Updated September 2008. Accessed November 12, 2010.

EEG (electroencephalogram). Mayo Clinic website. Available at:
<http://www.mayoclinic.com/health/eeg/MY00296> . Updated May 2009. Accessed July 21, 2009.

Harrison TR, Fauci AS. *Harrison's Principles of Internal Medicine* . 14th ed. New York, NY: McGraw-Hill Company; 1998.

Shevell M, Ashwal S, Donley D, et al. Practice parameter: Evaluation of the child with global developmental delay: Report of the Quality Standards Subcommittee of the American Academy of Neurology and The Practice Committee of the Child Neurology Society. *Neurology* . 2003;60:367-380.

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