

EEG (Electroencephalogram)

An EEG is a recording of the electrical activity of the brain. Fluctuating electrical activity produced by the brain is recorded as wavy lines on approximately 200 continuous sheets of graph paper. The tracing is later examined by an electroencephalographer (physician trained to read and interpret EEGs).

EEG is a diagnostic tool used to evaluate seizure disorders, metabolic disorders (liver, kidney dysfunction), stroke, infections of the central nervous system (encephalitis, abscess, etc.), degenerative disorders (Alzheimer's, Parkinson's), head trauma, headaches, brain tumors, and brain death.

Small metal discs (electrodes) are attached to the patient's scalp with an adhesive. The electrodes are placed on predetermined spots, usually 22 in number. The electrodes "pick-up" the electrical activity of the brain. The activity is transmitted through wires to the EEG machine where the signals are amplified sufficiently to be seen on the recording.

The EEG test is a totally painless procedure which usually takes about 1½ hours. A patient may be required to sleep during a portion of the test. Often mild sedative is given, by mouth, to help the patient drop off to sleep. During the test the patient may be asked to hyperventilate (breathing through mouth deeper and faster than normal). A strobe light, flashing at different speeds, may be shown to the patient for a brief time.

Sleep, hyperventilation and photic stimulation (strobe light) may activate abnormal activity not otherwise seen in tracing.