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**EVOKED POTENTIAL**  
*Records electrical activity*

The Evoked Potential (EP) is a recording of electrical activity from the brain, spinal nerves or sensory receptors in response to specific external stimulation. Electrodes are applied to the scalp and other areas of the body, a series of stimuli is introduced, and a computer records the neurological responses. Hundreds of responses are received, amplified and averaged by a computer. The final response is plotted on a graph and interpreted looking for particular waveforms and the time it takes them to occur.

Evoked potentials are helpful in evaluating a number of different neurological problems, including spinal cord injuries, acoustic neuroma and optic neuritis. Each type of EP looks at a different neurological pathway. The most common types are listed.

**Auditory.** The BAEP assists in evaluating the auditory nerve pathways from the ears through the brainstem. Earphones deliver a series of clicks and tones to each ear separately.

**Visual.** VEPs evaluate the visual nervous system from the eyes to the occipital (visual) cortex of the brain. The patient is usually asked to stare at a pattern on a video screen while remaining fully alert. Each eye is tested separately.

**Somatosensory.** SSEPs assess pathways from nerves in the arms or legs, through the spinal cord to the brainstem or cerebral cortex. A small electrical current is applied to the skin overlying nerves on the arms or legs. The current creates a tingling sensation but is not painful. Each leg or arm is tested separately.