Evoked Potential Test (EP)

What is an Evoked Potential Test?
An Evoked Potential test measures electrical activity from the brain, spinal nerves or sensory receptors caused by stimulation, such as light, sound, or touch. Small discs (electrodes) are applied to the scalp and other areas of the body. As different types of stimuli are given, the electrodes record the responses of the brain. This information is plotted on a graph and interpreted by a neurologist. The 3 most common types of EP tests are the:

- Brainstem Auditory Evoked Response (BAER)
- Visual Evoked Potential (VEP)
- Somatosensory Evoked Potential (SSEP)

How should I prepare for this test?
- Remove hairpieces or unbraided hair before the test.
- Wash your hair on the day of the test. Do not use any hair oil, hair spray or conditioner.
- Bring the following with you:
  - Photo ID
  - Medical insurance/Medicare card

Where do I go?
Come to the Neurological Testing Center (NTC), 7th floor, Galter Pavilion. This is at 201 East Huron Street. Parking is at 222 East Huron Street. For a discounted rate, bring your parking ticket to the NTC for validation.

What should I expect?
The BAER test helps to assess the auditory (hearing) nerve pathways from the ears through the brainstem. The technologist will put electrodes on your scalp and earlobes. You will wear earphones and listen to a series of clicks and tones.

The VEP test helps to assess the visual nervous system from the eyes to the occipital (visual) cortex of the brain. The technologist will put electrodes on your scalp. You are asked to watch a checked pattern on a screen while remaining alert. Each eye is tested separately.

The SSEP test helps to assess pathways from nerves in the arms or legs, through the spinal cord, to the brain. The technologist will put electrodes on your scalp and on your back over the spine. A small electrical current creates a tingling sensation that may cause some mild discomfort. Each arm or leg is tested separately.

Check with your doctor for test results.
After the Test

When finished, the tech removes the electrodes and washes the paste off your scalp. You may wish to wash your hair at home to remove any residue with warm water and a washcloth. Check with your doctor in 2 business days to discuss the results and further treatment.

Northwestern Medicine—Health Information Resources

For more information, contact Northwestern Memorial Hospital’s Alberto Culver Health Learning Center (HLC) at hlc@nm.org, or by calling 312.926.5465. Health information professionals can help you find the information you need and provide you with personal support at no charge.

For more information about Northwestern Medicine, please visit our website at nm.org.