physician or technologist should also be informed if you have a cardiac pacemaker. For NCS/ EMG - Avoid using skin lotions on the day of the test.

#### IV. Evoked Potentials

**BAEP/BERA** test checks the ear nerve and hearing threshold. There are no side effects and no pain involved. Patient needs to be sleeping during the test.

**VEP -Visual Evoked Responses:** test the eye nerve to see how fast it is taking the message to the brain. There are no side effects and no pain involved.

#### V Sleep Studies

#### Polysomnography (PSG)

- 1) Wash the patient's head with soap/shampoo & let it dry.
- 2) Do not apply oil/cream to the hair after washing it.
- 3) Patients should preferably not take caffeinated items like tea, coffee, energy drink & chocolate etc at least 6 hours before procedure.
- 4) Patient must have meal before procedure.
- 5) Bring your medicines, night dress and food stuff (if you want).
- 6) Don't take any nap on the test day.
- 7) Single attendant is allowed in the room (as per need).
- 8) Do not take any sleeping medicine.
- 9) Patients are advised to bring their doctor's prescription slip.

For more information and guidance, please contact,

#### **Neurophysiology Services**

Consulting Clinic #1,
Hours of work 9 am to 5.30 pm
The Aga Khan University Hospital
Stadium Road, P.O.BOX 3500,
Karachi-74800, Pakistan
Tel: 3486 1541 / 1542
hospitals.aku.edu/karachi

## **Information for Patients**

# **NEUROPHYSIOLOGY SERVICES**





#### Mission of the NPS

To provide the highest quality of care, excellence in dealing with patients. To provide world class Neurophysiological procedures, expert interpretation. To be involved in teaching and research.

### **Clinical Neurophysiology Services (NPS)**

Uses state-of-the-art equipment to perform tests that aid in the diagnosis and treatment of diseases of the brain, spinal cord, nerves, neuromuscular junctions and muscles. Neurophysiology Technologists are qualified and responsible to analyze data and to make certain that the information being obtained is valid and interpretable. They work with the consultant neurologists.

The procedures aid in diagnosis and monitoring of the neurological disease processes and treatment efficacy.

#### Services

#### I Electroencephalography-eeg

- Routine EEG
- Monitoring with Video recording
- Sleep Deprived

EEG is a painless, recording brain activity. We apply small button-like electrodes with some cream. You will be required to lie on the bed and relax with eyes closed. We are

able to get more information and better recording if you are able to fall asleep during the recording.

#### II. Electromyography/Nerve Conduction Studies- EMG/NCS

The examination is essential for evaluating symptoms of numbness, tingling, pain, weakness, fatigue, exercise intolerance & muscle cramping.

This test is in two parts and is used to study muscle and nerve functions.

stimulating nerves with small electrical stimuli using surface electrodes.

**EMG** involves inserting a fine needle electrode into the muscle and record the muscle activity.

**Botox** involves injecting medicine in the muscles.

11	Electromyography/Norgo	Conduction	Studios	EMC/NCS

EPs are designed to test the 3 most important senses: Sight, hearing and touch. The brain's response to an external stimulus of visual, auditory and electric are recorded by means of electrodes placed on the head, neck and the skin of the subject.

# Somatosensory evoked potentials-(SSEP)

III. Evoked Potentials (EPS) Brain Stem Evoked Potentials (BAEP) Visual Evoked Potentials (VEP)

#### VI. Sleep Studies

- ¢ Polysomnography (PSG)
- Multiple Sleep Latency Test (MSLT) PSG, also called a sleep study, is used to diagnose sleep disorders; it records brain waves, oxygen level in your blood, heart rate and breathing, as well as eye and leg movements during the study. You'll be asked to come to the sleep center in the evening

so that the test can record your nighttime sleep patterns. In addition to helping diagnose sleep disorders, PSG may be used to help adjust your treatment plan if you've already been diagnosed with a sleep disorder.

#### INSTRUCTIONS FOR PATIENTS

#### I. Electroencephalography

Please wash your hair and not use hair spray, creams or oils on the day of the test. The test has no side effects, does not involve needles or medication, and is safe for pregnant women. Please continue to take the medication as recommended by your doctor For CHILDREN over 3 years it is important to wake them 3-4 hours earlier and prepare them so they go to sleep during the recording. \*\*Bring favorite music or video.

For BABIES bring feeding bottles (filled) and soothers, \*\*Bring favorite music or video.

#### II. Nerve Conduction Studies - NCS

The electric pulses cause a brief, mild tingling feeling. Depending on the type of problem, several nerves may need to be tested. There are no side effects from the test.

#### III. Electromyography

There are no restrictions on activity before or after the testing and there are no lasting effects. You should, however, inform the physician prior to the examination if you are taking blood thinners or have hemophilia. The