

## **What is an EEG?**

Electroencephalography (EEG) is a non-invasive test performed to study the functioning of your brain by recording its electrical activity.

## **Why do I need an EEG?**

EEGs are most commonly requested to assist in diagnosing epilepsy. It is also useful to exclude unusual activity in the awake and sleep state. An EEG can also be used to diagnose brain tumours, brain damage from head injury, brain dysfunction which can have a variety of causes (encephalopathy), sleep disorders, inflammation of the brain (herpes encephalitis), and stroke.

## **Types of EEGs at Neurosciences QLD:**

### **- *Standard (Routine) EEGs***

Usually, a standard EEG test will be done in the clinic room. This test is normally performed in the awake patient, and it lasts between 40-60mins. The recording itself will go for 20 minutes.

### **- *Sleep-deprived EEG tests***

A sleep-deprived EEG test is done when a patient is asked to have less sleep than usual, the night before the study ('sleep-deprived'). When patients are sleep-deprived, there is a higher chance that abnormal electrical activity (if present) will be detected. This test will take up to 90 minutes including a 1-hour recording period.

*PLEASE STAY AWAKE AS LONG AS POSSIBLE THE NIGHT BEFORE YOUR EEG. IN ORDER TO ENSURE THE VALIDITY OF THE TEST, NAPS ARE PERMITTED OVERNIGHT, BUT NO LONGER THAN 2 HOURS.*

## **How to prepare for your EEG**

- Avoid any caffeine intake on the day prior to your appointment.
- Wash your hair the night before.
- Do not put any oil, gel, or hairspray.
- Do not wear hair extensions because they can interfere with the test.
- Religious headwear needs to be removed in order to conduct the test.

### **What happens during an EEG?**

Before testing, the EEG scientist will ask a few questions about you and your medical history, even though you may have been asked these by your doctor.

The scientist will clean the scalp lightly, place electrodes, and secure with a sticky paste and some light tape. You may be asked to perform some simple activities such as opening and closing your eyes and do a deep breathing exercise. You will also be shown some flashing lights during the test to as part of the assessment. A video is recorded in case an event occurs. This gives the neurologist an accurate visual record in conjunction with the EEG recording.

### **How much time will the procedure take?**

A standard EEG usually takes about an hour to complete. This time allocated will include the placement of electrodes, recording of your brain activity, and analysis of these recordings by the Neurologist. A prolonged or sleep-deprived EEG may take longer. Our Neurophysiology scientist will give you a rough idea about the time prior to when you book your test.

### **What happens after the EEG?**

The Neurophysiology scientist will carefully remove all the electrodes from your scalp. The areas where the discs have been placed will be cleaned by the scientist, but it is generally recommended that you wash your hair at home after the test is performed. There are no after-effects from the EEG so you can carry on with your normal activities immediately.

### **Obtaining the results.**

The EEG scientist has been specially trained to obtain a good EEG record and will be pleased to answer any questions about the procedure. However, the scientist cannot tell you the results of the test and administration staff are unable to provide results over the telephone. You must arrange with your doctor how to receive the results. In urgent situations, your doctor may obtain a preliminary report by contacting our neurologist.

THE EEG REPORT WILL BE SENT TO YOUR **REFERRING DOCTOR**.

### **Key points to remember.**

- The EEG is completely safe and pain free.
- Wash your hair the night before.
- Bring your referral.