Scalp EEG Leads In The Epilepsy Monitoring Unit

Welcome to the Epilepsy Monitoring Unit (EMU). To monitor your brain activity, we use EEG (electroencephalogram) leads that are glued onto your scalp. This pamphlet will provide you with information about how we use the leads and the role they play in your care.

How are the leads used?

Your EEG leads will be put on by the EEG technologists. They will apply and remove wires, and also test the system to make sure that everything is working. When the leads are on your scalp, they will then be connected to a small, portable recording unit called a head box. This sends information about your brain waves to larger units on the wall using a connecting cord.

Disconnecting from the Wall Unit

You can disconnect the cord from the wall computer as necessary; for example, if you need to go to the bathroom or to shower. You can also leave the unit up to 3 times a day, and for 15 minutes each time, which is how long the head box's memory will last without being plugged in.

It's important to remember to plug your head box back in after you disconnect it. This is so computers record as much of your brain activity as possible. Every day, the doctors will review the activity that is recorded.

Routines

Every 5 days the leads will be temporarily removed so you may wash your hair. EEG technologists will also perform tests (called awake triggers) during the day where you will be asked to lie down with your eyes closed for 10 minutes. At night, nurses will record sleep triggers.

Monitoring Devices

Along with the EEG leads, we use other devices to monitor you. There are video cameras and microphones as well as infrared light cameras above each bed. Using these, the doctors can have visual and audio information to compare to what they see on the EEG recordings.

What are MRI's?

MRI (Magnetic Resonance Imaging) is a way to take pictures of your body to look at the structure and features.

The machine uses a magnetic field, which is why it is important to remove all metal from your body (such as piercings and jewellery) before you go for testing.

On the EMU, MRI's are most often used to look at your brain to help provide a better understanding of how things look.

EEG Leads and MRIs

The EEG leads are MRI compatible which means that you don't need to have them removed if you are sent to an MRI.

However, it's important to know that the leads are manmade and there is a small chance of an electrical current being produced in the wire. This can heat the leads up and creates the small chance of a burn. This is not common, but if your leads feel warm or unusual in any other way during your MRI, be sure to alert the MRI technologist immediately.

Frequently Asked Questions

Why is my head itchy?

The conductive gel used on the EEG leads that allows them to record well eventually dries, and this can make your head itchy. If this occurs, ask the nurses for an antihistamine such as Benadryl.

How long do I keep these leads on for?

The EEG leads stay on for the duration of your time on the unit, but they may be removed periodically.

Can I take them off?

Your leads will be removed by EEG technologists every 5 days so you can have the chance to wash your hair.

Can I shower?

You can shower with the leads on but it is important to keep water away from them. Please ask your nurse to disconnect the leads before you go into the shower.

Can I leave the unit?

You can leave the unit 3 times a day for 15 minutes each time by signing out at the nurse's station. Note: Smoking cessation aids are available to smokers help stay within these limits.

Important Information

Please do not chew gum while on EEG monitoring because it disturbs the normal recording of your brain activity.

If you experience any questions or concerns you can speak to a nurse, technologist, or other member of the health care team at any time.

The EMU telephone number is **519 685-8500 x 33317.**

epilepsy southwestern ontario

ONTARIO BRAIN INSTITUTE

Ontario Trillium Foundation

Fondation Trillium de l'Ontario

EPLINK