

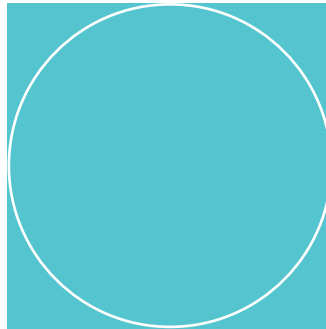
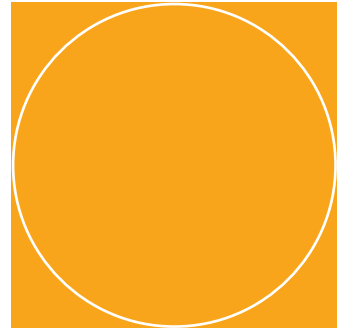
Ambulatory EEG monitoring?



What is it? Ambulatory EEG monitoring is the recording of EEG brain wave activity outside the hospital environment eg. while the child is at home or school. An Ambulatory EEG is recorded on a special portable unit from 1 to 5 days depending on the reasons for monitoring.

> What does ambulatory EEG monitoring involve for the child and parent/carer?

- EEG electrodes are glued on the child's scalp. The electrodes are plugged onto a small recording unit which is worn at the waist on a belt. This unit is lightweight and can easily be worn by most children.
- With ambulatory monitoring in place, the child can attend kindergarten or school, move around freely and sleep at home.
- To protect the equipment, children need to avoid vigorous exercise, sandpits and play equipment, especially plastic slides.
- No bathing, showering or hair washing is allowed during monitoring.
- The parent/caregiver may be required to keep a diary of episodes during the recording. There is no video recording involved.
- The child will need to be supervised by an adult throughout the monitoring period to ensure the equipment is not "played" with by the child.



> Why is ambulatory EEG monitoring performed?

The main reasons children undergo ambulatory EEG monitoring are:

- To distinguish non-epileptic from epileptic turns in situations where the child cannot be confined to a bed for video EEG monitoring
- To obtain a prolonged natural sleep recording
- To capture events that are situational

> How long does ambulatory EEG monitoring set up take?

Parents need to allow approximately an hour and a half for the monitoring equipment to be set up. Your child will usually need to return daily or every second day to download data which will take approximately 30 minutes.

If the study was to capture sleep and the EEG information is satisfactory, the electrodes can be removed. Download and electrode removal will take approximately 45 minutes.

If an unsatisfactory recording has resulted or events have not occurred, monitoring can be continued for a maximum of 5 days and 4 nights.

> Hair care before ambulatory EEG monitoring.

To help reduce the amount of natural oil in the hair and aid EEG electrode application, it is important to thoroughly wash your child's hair the night before monitoring.

> What to wear during ambulatory EEG monitoring.

It is preferable children wear comfortable clothing that can be easily changed without taking it over the head. Clothing that buttons up in the front is best. Natural fibres such as cotton are preferred.

Do not wear nylon or satin tops because they produce static electricity, which affects the EEG recording.

> Can we bring other children into the EEG department?

We strongly encourage you to organise alternative care arrangements for other children as you may be required to assist us during electrode application and set up.

> Is ambulatory EEG monitoring uncomfortable or painful?

As for a routine EEG, electrodes are placed on the scalp, but special glue is used to keep them in place. Some young children find the smell of the glue unpleasant or the noise of the hair dryer disturbing.

The electrodes are attached on the first day of monitoring and remain in place until monitoring is finished. Children quickly become accustomed to the electrodes on their head and usually do not experience any difficulty with sleep.

A special solvent is used to remove the glue when the monitoring is finished. Some children find this procedure uncomfortable. Fragments of glue and dried electrode gel may remain in the hair and it may take several hair washes and combs to remove it all. If your child has long hair please bring along a hairbrush.



> Where do I go?

Children having Ambulatory EEG Monitoring should come to the EEG Department located within the Children's Neuroscience Centre (main building Royal Children's Hospital).

Once the scalp electrodes are in place, equipment connected and instructions given, you and your child can leave the hospital and then return daily for the length of monitoring. The time for returning will be organised with the Neurophysiology Team each day.

For more information about Ambulatory EEG:

Visit our website at

www.childrensepilepsy.org.au

www.cnc.org.au

If you have any further queries please contact:

Children's Neuroscience Centre

Department of Neurology (EEG Department)

Royal Children's Hospital

Flemington Road, Parkville

Victoria, Australia 3052

Telephone (03) 9345 5602



ROYAL
CHILDREN'S
HOSPITAL

