

Melatonin Electroencephalogram (EEG) – CHILD

What is an EEG and why is it done?

An EEG is a diagnostic test which records the natural electrical activity of the brain. Our brain cells communicate by producing tiny electrical impulses. The EEG recording is used to look for changes in this normal activity which can help with diagnosis and treatment of many disorders which involve the brain.

What is a Melatonin EEG test?

This is an EEG recording taken when your child has been given a hormone called Melatonin, so that they are more likely to sleep during the test. We make Melatonin in our own bodies – it helps us to know when it is time to go to sleep.

The Melatonin we will give your child is a synthetic (man-made) product and will work with their body's own natural Melatonin. This will help your child to go to sleep in the department.

Melatonin is not sedation and has no common side effects with a single dose. Your child's sleep patterns can then be recorded while they are asleep or drowsy.

Please don't let your child sleep in the morning prior to their appointment, particularly in the car on your way to the appointment.

How do I prepare for the test?

- Please ensure your child has clean, dry hair and do not apply any hair spray, oil, mousse or creams. This is because hair products and even the hair's natural oils, can make it difficult for us to get a good recording.

- Medicines and meals can be taken as usual.
- Please bring a list of any medicines that you are currently taking.

PLEASE DON'T

- Don't let your child sleep or nap before the appointment.
- Don't let them drink caffeinated drinks such as tea, coffee, Coca-Cola, or energy drinks.
- If possible, please don't bring other children with you as they can distract during the test.

What happens during the test?

The melatonin sleep EEG is performed by a qualified or trainee Healthcare Scientist and takes about 2 hours. Trainees are supervised by a qualified member of staff, the amount of supervision varies, depending on the amount of experience the trainee has. We will ask your permission if a trainee is performing the test.

Your child's head will be measured and about 23 small discs (electrodes), placed on the scalp using a special sticky paste. This can feel a little scratchy. Your child may also have some sticky electrodes put on their shoulders and the tops of their arms to monitor movement.

The electrodes are connected by wires to a computer which records the changes in the electrical signals.

Once the electrodes have been attached (depending on age and ability) your child will be asked to lie down on a bed and the lights will be dimmed while the recording takes place.

We may ask your child to open and close their eyes a few times before closing them for some time. As the Melatonin starts to work, they should gradually fall into a natural sleep.

The recording causes no discomfort as the electrodes only monitor the signals and do not produce any sensation (very much like an ECG).

Video recording

Where possible we like to record a video of your child alongside the EEG. The video helps us report the test more accurately as we can see any movements they made and if your child has one of their typical episodes, we can see what happens.

You will be asked to sign a consent form for video recording (we may ask your child to do this, if they are old enough). Often the video will be erased from our system after the test is reported; if there are useful sections of video we will keep them with your child's EEG for future reference.

Side effects of the test

- Little is known about the long-term effects of melatonin, but for a single dose as used for this test, there are no commonly known effects.
- Your child may still be a little tired after the test.
- No needles or electricity are used in the test.
- It is an investigation not a treatment.
- This test will not affect your child's general health.
- If your child is allergic or sensitive to cosmetics, lotions or sticky tape, please tell the Healthcare Scientist before the test starts.

When will I get the results?

After completing the examination, the results will be analysed and a report will be sent to the doctor who referred your child. This may take up to 3 weeks.

What are the consequences of not having the EEG?

An EEG is a well-established method of helping doctors to diagnose and treat a wide range of medical conditions. Your child's doctor would not have as complete a picture as required and hence your child's diagnosis may take longer and/or their treatment may not be the most appropriate.

Contacting Us

Staff in the department will be happy to answer any query you may have and will do their best to ensure your comfort.

Please let us know if you are unable to attend your appointment by ringing the telephone number below.

If you have any questions or concerns about the test please ring the **Neurophysiology Department** on **01392 402458**.

We welcome feedback about our service. Please tell a member of staff if you felt this service is good or otherwise.

For further information regarding Melatonin see the BNF website: www.evidence.nhs.uk/formulary/bnfc/current/4-central-nervous-system/41-hypnotics-and-anxiolytics/411-hypnotics/melatonin

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