

Sleep with melatonin EEG

This leaflet explains about sleep with melatonin EEG. If you have any further questions or concerns about the test or recording period, please contact the department, t: 020 7188 9209, Monday to Friday, 8.30am-5pm to discuss them.

We look forward to welcoming you to the Puffin Department (1st floor), Evelina London Children's Hospital. We hope that you will find the information below useful.

As the test takes up to an hour, it is essential that you arrive in time for your appointment. If you arrive late, your appointment may have to be rescheduled.

What is an EEG?

An electroencephalogram (EEG) is a test to record the electrical activity of your child's brain. The nerve cells in the brain produce tiny electrical signals. Recording and checking these can provide doctors with useful information about how your child's brain is working. EEGs can be used to diagnose and monitor seizures disorders, sleep disorders, movement disorders, development and changes in behaviour. These are commonly known as events.

What is melatonin?

Melatonin is a natural substance (hormone and nutrient) produced by the body available in tablet or liquid form. It is short acting and encourages relaxation and natural sleep. You will be given the melatonin for your child when you arrive at the department and your child will need to take it just before the test. It is not a strong sleeping tablet and your child may not sleep. This is not a problem and we prefer to emphasise having a rest rather than having a sleep. You may wish to bring a drink or yogurt for your child to take the tablet.

The use of melatonin for children is an unlicensed use of the medicine. There are times when doctors advise patients to use a medicine in a way not specified by the manufacturer of the medicine. They do this because they think it may work well to treat a particular condition. The patient information leaflet, **Unlicensed medicines – a guide for patients**, has more information about medicines being used outside their license. Please ask the hospital pharmacist for a copy.

What are the benefits of an EEG with melatonin?

An EEG can help doctors to diagnose epilepsy or to find out more about the nature of your child's blackouts/episodes/seizures. Recording the EEG during drowsiness and sleep can help with diagnosis. More than 9 out of 10 children we see for EEG fall asleep with melatonin.

Are there any risks associated with EEG or melatonin?

There are no known risks or side-effects of having an EEG. Melatonin is generally considered to be safe and nothing other than sedation (feeling sleepy) has been reported.

Are there any alternatives?

There is no alternative test. If you do not want your child to have melatonin, you can deprive them of sleep. To do this, try putting them to bed two hours later the night before and waking them two hours earlier on the day of the EEG.

What happens during the test?

The test takes about one hour. A clinical physiologist (specialist in the electrical function of the brain) will prepare your child for the test. They will mark measurements on your child's head with a soft crayon. After gently rubbing a gel over the marks, the physiologist will attach 22 small discs (electrodes) using a special adhesive. During this preparation your child can sit on your lap, looking at books or playing with toys. We have many in the department, or you may wish to bring your child's favourite book, toy or comforter with you.

Your child will be made comfortable on the bed and covered with a blanket. You will be able to sit beside them and read a story, if you wish. They will be encouraged to close their eyes. The discs are connected to the EEG computer. This picks up electrical signals from your child's brain and they are recorded as wavy lines.

During the test your child may:

- be asked to take deep breaths and blow a windmill. This may produce changes in the electrical activity of your child's brain that could help in diagnosis.
- have a light flashed in front of them, with their eyes open and closed. This is called photic stimulation. It is an important part of the test for children who may have seizures or blackouts caused by flashing lights. This, very rarely, may cause a seizure if your child is one of the few people that are very sensitive to flashing lights. If this appears to be the case, the light will be stopped.

We will make a video recording of your child while the EEG is taken. This helps us when we interpret the EEG and to make a diagnosis. We can observe any changes, for example in your child's breathing or movements, which may be associated with seizure activity on the recording. You will be asked to give your consent.

Will my child feel any pain or discomfort?

Your child will feel their skin being rubbed and the discs being pressed onto their head, but the test should be painless.

What happens if my child has a seizure during the test?

It is unlikely that having the test will make them have a seizure. If a seizure occurs, care will be provided in the department until your child is well enough to leave.

Consent - asking for your consent

We want to involve you in decisions about your child's care and treatment. If you decide to go ahead, you will be asked to sign a consent form. This states that you agree for your child to have the treatment and you understand what it involves. If you would like more information about our consent process, please speak to a member of staff caring for you.

What happens after the test?

The discs are removed and your child will be able to return home or to school. The sleep-inducing effects of melatonin do not last very long. Small pieces of sticky paste may be left in your child's hair - these will wash out with shampoo.

When will we get the results?

The results of the test need to be analysed and a full report will be sent to the doctor who asked for the test within one week. The doctor should arrange with you when and how you will receive the results.

Is there anything we need to do to prepare?

You should continue to give your child any medicines they take regularly. Please wash your child's hair the night before or on the day of arrival and do not use any hair products such as gels, oil, wax or sprays. This will help stick the electrodes to your child's head.

It is important for the child, who is having the test, to be quiet and relaxed. If possible try to avoid them falling asleep on the way to hospital. If you have other children it is best if they can be looked after at home or by another adult if they come with you.

Contact us

If you have any questions or concerns about please contact the department,
t: 020 7188 9209, Monday to Friday, 8.30am-5pm.

For more information leaflets on conditions, procedures, treatments and services offered at our hospitals, please visit **w:** www.evelinalondon.nhs.uk/leaflets

Evelina London Medicines Helpline

If you have any questions or concerns about your child's medicines, please speak to the staff caring for them or contact our helpline.

t: 020 7188 3003, Monday to Friday, 10am to 5pm **e:** letstalkmedicines@gstt.nhs.uk

Your comments and concerns

For advice, support or to raise a concern, contact our Patient Advice and Liaison Service (PALS). To make a complaint, contact the complaints department.

t: 020 7188 8801 (PALS) **e:** pals@gstt.nhs.uk
t: 020 7188 3514 (complaints) **e:** complaints2@gstt.nhs.uk

Language and accessible support services

If you need an interpreter or information about your care in a different language or format, please get in touch. **t:** 020 7188 8815 **e:** languagesupport@gstt.nhs.uk

NHS 111

Offers medical help and advice from fully trained advisers supported by experienced nurses and paramedics. Available over the phone 24 hours a day. **t:** 111

Leaflet number: 4453/VER3

Date published: January 2019

Review date: July 2020

© 2018 Guy's and St Thomas' NHS Foundation Trust

A list of sources is available on request