

Home video telemetry (HVT): information for families

Telemetry is a test that looks at the function of the brain. The brain works by a series of electrical signals. These signals (also called brainwaves) can be recorded through the scalp. This information sheet from Great Ormond Street Hospital (GOSH) explains the procedure for a Home Video Telemetry (HVT) test and what to expect when your child has one. An Easy Read information sheet is included for your child.

In most cases, we prefer the person bringing your child to their appointment to have 'Parental Responsibility' for them. Parental Responsibility refers to the individual who has legal rights, responsibilities, duties, power, and authority to make decisions for a child. This is because the person may need to give consent for your child to have the test. If you are unable to attend with your child but we still need you to give consent, we might need to contact you by phone during the test.

Home Video Telemetry (HVT) is similar to video telemetry, but instead of staying at the hospital, you take the equipment home with you. It is also like an electroencephalogram (EEG) test, but it records for a longer time, sometimes taking up to four days.

How is home video telemetry (HVT) used?

HVT can be carried out on patients of all ages and abilities, making it a good way to get an overall view of how the brain works. It is helpful as part of general investigations and more specific problems, such as blackouts and seizures.

Recording for a longer period of time will allow us to capture your child's brainwaves in different states, such as wakefulness, drowsiness, and sleep. Most importantly, we will hopefully capture

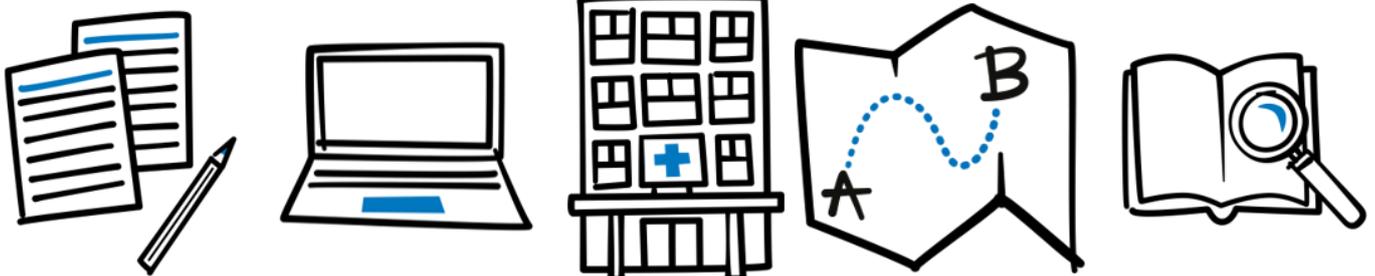
some events and provide more information about these to your doctor. HVT may be done to obtain a complete night's sleep recording, to record seizures, or tell the difference between seizures and other types of events.

Getting your appointment letter

If you are unable to keep this appointment, please inform the department as soon as possible beforehand. Sometimes, we can offer the appointment to another child on the waiting list.

Please note that there is great demand for our services. Due to this demand we have a policy where if a child cancels or does not attend **two** appointments in a row, we will inform their referring consultant and close the referral.

Getting ready for the test



It is helpful if you make sure that your child's hair is clean before the test, with no mousse, gel, oil, or hairspray. If your child is taking medicines, you should continue to give them as normal.

If you have other children, it is better if they could be looked after at home or by another adult if they come with you. We are unable to look after them during the test.

The day of the test

Your child will come to the Department of Clinical Neurophysiology, which is on Level 4, Southwood Building.

Once you are in the EEG department, check in with reception and a clinical physiologist will come to meet you. They will confirm your and your child's details and take you to the set-up room. They and one of the doctors will explain in more detail how the test will work and discuss any worries you may have. They will also ask you to give permission for video recording by signing a consent form. They might also ask you to give permission for any extra procedures that the doctor has asked for. This could include looking at flashing lights or ('over-breathing').

You will also be asked to sign a form to say that you will look after the equipment at home. If you want a copy of these forms, please ask us. If you are unable to drive to the hospital, transport will be booked to take you home.

Students and trainees

As we are a teaching hospital, on occasion you might be asked if you would agree to a trainee to perform the test under supervision. Sometimes other healthcare professionals or students might ask to observe the test as well. Saying no to this will not affect your child's treatment.

What does the test involve?

We will give you a detailed explanation at the start of the appointment on how to set up the video

camera for day and night recording. You might also be asked to change some batteries if the recording lasts for more than a day.

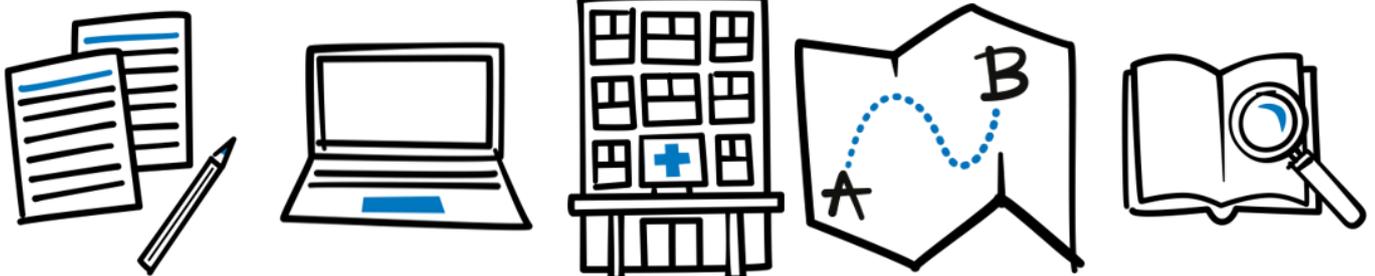
The physiologist will attach a number of small silver discs (electrodes) to certain points on your child's head using a soft paste. They will measure their head and mark the points with a soft pencil before attaching the electrodes. Extra electrodes will also be applied on the shoulders to record your child's heart rate and muscle activity. Sometimes, additional electrodes may be applied to other areas to get more information.

As each electrode is attached, the physiologist will clean the area of the scalp with a cotton bud and some cream. This does not hurt but some children do not like it. This should take around 30 to 45 minutes. In some cases (such as with very energetic children or those who may try and remove the electrodes), the physiologist might need to use a special glue – this will not hurt, but it does have a strong smell.

After all the electrodes are applied, the physiologist will bandage your child's head and use a net to cover the head and the electrodes. This is to keep them in place. They are attached by wires to a 'headbox'. The 'headbox' will be put into a bag, which your child will need to keep close to them. While all the electrodes are being applied, your child can sit on a chair, the bed, or your lap, and can play with toys – we have many toys but feel free to bring your child's own favourite book, toy, or comforter.

The 'headbox' will record your child's brainwaves wirelessly and this information will be uploaded once we have the equipment back. Your child will not feel anything while the HVT is being recorded.

At the same time, a video recording of your child will be made. This so the doctor can see any changes in behaviour or movements that could be associated with seizure activity. Your child can move around the house if they stay in range of the



camera. It is best to stay inside if possible so that the equipment is safe.

Your child will be able to eat and drink as normal during the test. Your child will not be able to bathe or shower while the electrodes are in place. It is not waterproof.

How long does the test last?

The test may continue for up to four days. In some cases, just one day and night is long enough. We will discuss this with you during the appointment

Are there any risks?

No. The HVT test is painless and there are no aftereffects. Your child can go back to school or nursery after the electrodes are removed.

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

If your child has a seizure during the test, as they are at home, we ask you to treat them as you normally would. We will also ask you to push an 'event button' which marks the time on the recording, and also to describe out loud to the camera what is happening. This will allow us to look at where the event happened and to have a good description from you as well as the video.

After the test

In most cases, you will be able to disconnect the wires from the stickers yourself, by cutting through them with a sharp pair of scissors. You can then remove the stickers from your child's head and wash their hair as usual. You do not need to keep the stickers or return them to us – you can dispose of them in your usual household rubbish.

We will arrange a courier to collect the headbox and video camera from your home and bring it back to us at GOSH. We will then look at the recording as usual.

If you cannot disconnect the wires yourself, you can come back to GOSH to have this done. You might need to do this if we used the special glue to attach them.

Getting the results

The team will look at the results and write a detailed report. We will send this to your child's consultant in time for their next appointment.

Further information and support

If you require more information about the test or have any questions, please contact the Department of Clinical Neurophysiology on 020 7813 8471, Monday to Friday between 9am and 5pm.

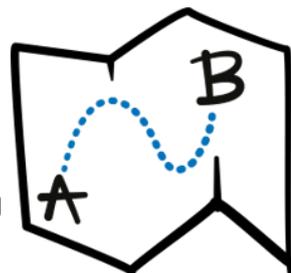
How to find us

Come in through the main entrance and walk through the main reception. At the glass doors, turn right and then first on the left (you are entering Southwood Building). Walk through the corridor until you find the stairs and the lifts. Go up to Level 4. Walk through the double doors and then down the corridor until you find another set of double doors. The Clinical Neurophysiology (EEG) Reception is on your right.

For more information about travelling to GOSH, please visit our website on www.gosh.nhs.uk/your-hospital-visit/travelling-gosh

Your feedback

We take all feedback very seriously and want to hear about your experiences. Your feedback helps us to understand what we are doing well but importantly how we can improve. We will give you a feedback card during your visit but if you haven't received one, please ask a member of staff. You can



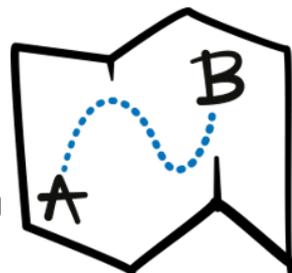
also provide feedback using this QR code or via our website: <https://www.gosh.nhs.uk/your-opinion-matters/>

Any concerns?

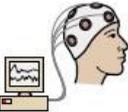
We know we do not always get things right. Please do raise any queries or issues with the ward/ clinic staff in the first instance. We want to help and often we are able to resolve things quickly.

Another way of raising a concern is to contact our **Patient Advice and Liaison Service 'Pals'** – they are based in the main reception area and open from Monday to Friday from 10am to 5pm. You can also call them on 020 7829 7862 or email pals@gosh.nhs.uk. The Pals team can offer independent advice and support, working with you to sort out a problem along with members of staff.

The **Complaints** team are also available if you want to make a complaint – you can call them on 020 7813 8402 or email complaints@gosh.nhs.uk



Having home video telemetry (HVT)

	You are coming to hospital for home video telemetry. This is the same as an EEG, but you will be recorded for a few days. An EEG records your brain waves.
	We will measure your head and will clean small areas with a cotton bud. This will not hurt.
	We will put some silver discs with stickers and paste where we have cleaned on your head. This will not hurt.
	We will join the stickers to the EEG machine with wires and bandage your head, making a nice hat. This will not hurt.
	We will also make a video of you. This will show us if you move around in the room or bed.
	You will be going home with the electrodes attached and a small bag.
	When it is bedtime, you will go to sleep as usual. You will still be having the EEG test.
	You can eat, drink, and play as usual at home.
	At the end of the test, your parents can cut the wires and take the stickers off your head. This will not hurt.
	We will arrange someone to collect the headbox and camera and bring it back to GOSH.
	Please ask us if you have any questions.

