

Paediatric Home Video Telemetry

This leaflet explains more about Home Video Telemetry and what to expect when your child comes to St George's Hospital to have this procedure. This leaflet also explains the benefits, risks and any alternatives. If you have any further questions, please speak to the clinician caring for your child.

What is Home Video Telemetry?

Home Video Telemetry (Home VT) is an electroencephalogram (EEG) test with a video recorder that you take home with you for one to three days. The EEG measures the normal electrical activity of your child's brain (brainwaves) and Home VT is a safe method of recording your child's brain function in the comfort of your own home. The EEG and video mean that we can observe your child's brainwaves during any seizures or attacks they have been having or we can monitor a complete night's sleep.

Home VT will be set up by a Clinical Physiologist in the Department of Clinical Neurophysiology at St George's Hospital. The Clinical Physiologist will carefully explain the test to you and your child, attach the EEG electrodes and show you how to set up the video camera at home. Your child will not need to stay in hospital.

Are there any risks?

There are no known side effects of an EEG. Home VT has no specific risks. It is a method of recording normal brain wave activity at home. The glue used to attach the electrodes may cause some mild skin irritation but this is uncommon.

Are there any alternatives?

Your child may have had a routine EEG or a Sleep EEG, which also measure brainwaves. However, Home VT lets us measure for longer, which means we are more likely to record one of your child's events. This will help your consultant find out what kind of attacks your child is having and how often they are occurring. Video telemetry can also be done in hospital but this involves admission to a ward for up to three days. If your consultant has referred your child for home VT, they feel that having the test at home would be more appropriate and comfortable.

What happens before the test?

Two weeks before your appointment:

- You will receive a phone call from a Clinical Physiologist, who will explain Home VT and make sure all arrangements are in place.

On the day of your child's test

- Your child should take their medication and have meals as normal.
- Please wash your child's hair but do not use hair gels, oils or other hair products.
- Please remove any hair weaves or extensions.
- Your child should not wear tight neck jumpers or tops as they will not be able to lift clothing over their head to remove it once the EEG electrodes are attached. A shirt or top which has a zip or buttons at the front is ideal. If this is not possible, your child's clothes need to be as loose as possible.
- A loose-fitting cap, hat, hoodie or coat with a hood may be useful for the journeys to and from the hospital if your child would like to cover the electrodes.

What does the test involve?

You and your child will attend the Department of Clinical Neurophysiology to have the Home VT investigation set up. The appointment should take approximately one and a half hours.

The Clinical Physiologist will attach small silver discs (electrodes) to your child's head using special glue. They will measure your child's head beforehand and draw the points with a soft pencil before attaching the electrodes. The physiologist will clean the areas of the head with a cotton bud and some cream. This does not hurt and the procedure will be similar to the EEGs your child may have had in the past.

The electrodes are attached to fine cables which are plugged into a small box (a 'head box') which records the EEG. The clinical physiologist will discuss the safety of the electrode cables which will be fed down the back under your child's clothing. The head box is placed in a small bag which can be worn around the body or carried using a shoulder strap.

The clinical physiologist will make a short EEG and video recording to check that the equipment is working. The clinical physiologist may ask your child to hyperventilate or do photic stimulation (flashing lights) if your consultant has asked for this.

The clinical physiologist will show you how to use the video camera and carefully take you through how to set up the video camera at home. Full instructions will be provided.

You will be given a diary to write down any events or seizures that your child has.

You will be given a 'cabin bag' sized case in which to take the equipment home. If you do not have your own transport, special arrangements may be needed to help you to get to and from the hospital.

You will return home and the EEG and video will record for one to three days. The video recorder will video your child for the whole time, including while they are asleep. There is no need to video when using the bathroom.

Using the equipment

Full instructions and a demonstration of the equipment will be given when you come to the department on the day of your child's appointment.

The most important points to remember are:

- When setting up the camera at home, make sure that it is in a safe, stable position away from other children and pets. It is important not to interfere with it while it is recording.
- Plug the video camera into the mains power to keep it fully charged.
- Make sure your child is clearly visible on the camera.
- Press the record button as instructed.
- Press the event marker (button) as instructed and write in the diary if your child has an event. Describe the event in the diary if possible.
- **Your child must not shower or bathe during monitoring. It is very important the equipment does not get wet.**

Important points to consider during the test

- Your child will not be able to leave home while they are having the Home VT recording.
- The video camera will be constantly recording, so please make any family members or visitors, including other children, aware they will be recorded if they are in view of the camera.
- When you consent to this test, you agree to the Clinical Physiologist and Consultant Neurophysiologist being able to view the whole video with sound.
- You should behave naturally while at home but remember that all behaviours may be seen by the medical team looking after your child following review of the video.

If an event or seizure occurs at home

- It is very important you follow your child's seizure care plan if you have one in place.
- Press the event marker (button) as soon as possible. This tells us exactly when an event has occurred.
- Make sure your child is visible on the video camera.
- Write in the patient diary as soon as possible after the event. This should include the date, time, for how long it lasted and a description of what happened.

Home VT Loan Agreement and equipment care

At your appointment you will be asked to sign a Loan Agreement which explains how we expect you to take care of the equipment.

The care of the Home VT equipment is your responsibility from when you leave the EEG department until you return it to the hospital. This includes travelling to and from your home and the whole time the equipment is in your home.

If you are travelling by public transport, special arrangements may be needed to help you to get to and from the hospital.

Asking for your consent

It is important that you feel involved with regards to decisions about your child's care. The Clinical Physiologist will explain the test and you will be asked to sign a consent form to say that you agree to your child having the video recording and that you understand what it involves. A copy of the signed consent form will be given to you for you to keep.

You can withdraw your consent at any time, even if you have said 'yes' previously. If consent is withdrawn, you should return to the hospital with the equipment so your child can have the EEG electrodes removed and the duration of the Home VT would end sooner than planned. If you would like more details about our consent process, please ask for a copy of our policy.

What happens after the test?

When the recording of Home VT is complete, your child will have a follow-up appointment at the hospital where you will return the equipment and the EEG electrodes will be removed.

The appointment will take approximately 40 minutes, during which the EEG data and video footage will be downloaded. The Clinical Physiologist will remove the electrodes. This will not hurt as a liquid is applied to the glue to soften it before the electrodes are removed. Your child's hair may feel sticky to the touch until you wash it.

What do I need to do after I go home?

Your child can return to normal activities when you get home. If your child is being treated with medications, please continue treatment as usual during and after home VT.

How long until I get the results?

The results from the Home VT will be sent to your consultant. Your consultant may send you a letter with the results and/or these will be discussed with you at your child's next outpatient appointment.

Contact us

Patient Pathway Co-ordinator (Neurology) 020 8725 1796.

Prior to the Home VT appointment, the Patient Pathway Co-ordinator will be in regular contact. Unfortunately, there are unforeseen circumstances where appointments are cancelled at short notice. In these rare situations, the Patient Pathway Co-ordinator will be in touch to arrange another mutually convenient date.

If you are running late or cannot make it into hospital for your test, please contact the Patient Pathway Co-ordinator or the Department of Clinical Neurophysiology. Department of Clinical Neurophysiology on 020 8725 4812

Department hours:

Monday to Friday, 8.30am to 4.30pm

Location: Ground Floor, Atkinson Morley Wing, St George's Hospital, Blackshaw Road, Tooting, London, SW17 0QT

Main points to remember

- **Light weight clothing MUST be worn at all times, so the electrode cable can pass safely down your child's back and cannot get tangled near the neck area.**
- **Your child should wear clothes that fasten at the front with a zip or buttons as they will not be able to take off things over their head.**
- **When setting up the camera at home, ensure it is in a safe, stable position, away from other children and pets. It is important not to interfere with it while it is recording.**
- **Plug the video camera into the mains power to keep it fully charged.**
- **Make sure your child is clearly visible on the camera.**
- **Press the record button as instructed.**
- **Press the event marker (button) as instructed and write in the diary if your child has an event.**
- **Your child must not shower or bathe during the monitoring. It is very important the equipment does not get wet.**
- **All equipment should be returned to the Department of Neurophysiology in good condition at your return appointment.**

Disclaimer

Please note this is a generic St George's Hospital information sheet. If you have specific questions about how this relates to you, please ask your doctor. Please note this information may not necessarily reflect treatment at other hospitals.

Reference Sources

Patient Information Leaflets / Websites:

Manchester Royal Infirmary / Manchester Children's Hospital.

Great Ormond Street Hospital, London. King's College Hospital, London.

Additional services

Patient Advice and Liaison Service (PALS)

PALS can offer you on-the-spot advice and information when you have comments or concerns about our services or the care you have received. You can visit the PALS office between 9.30am and 4.30pm, Monday to Friday in the main corridor between Grosvenor and Lanesborough wings (near the lift foyer).

Tel: 020 8725 2453 **Email:** pals@stgeorges.nhs.uk

NHS Choices

NHS Choices provides online information and guidance on all aspects of health and healthcare, to help you make decisions about your health.

Web: www.nhs.uk

NHS 111

You can call 111 when you need medical help fast but it's not a 999 emergency. NHS 111 is available 24 hours a day, 365 days a year. Calls are free from landlines and mobile phones.

Tel: 111

AccessAble

You can download accessibility guides for all of our services by searching 'St George's Hospital' on the AccessAble website (www.accessable.co.uk). The guides are designed to ensure everyone – including those with accessibility needs – can access our hospital and community sites with confidence.



Reference: NEU_PHVT_01 **Published:** November 2021 **Review date:** November 2023