

Your child's home video telemetry (HVT)

Information for patients, parents and guardians

We have given you this factsheet because your child has been referred for home video telemetry (HVT). It explains what HVT is, what the test involves and how to perform it safely at home. We hope it will help to answer some of the questions you may have. If you or your child has any further questions or concerns, please speak to a member of our team.

What is home video telemetry (HVT)?

An electroencephalogram (EEG) is a test that records the electrical patterns of the brain (brain activity).

HVT is similar to an EEG test, but with the addition of a video recording. It also records over a much longer period of time (up to five days) from the comfort of your own home.

Why does my child need this test?

HVT can be used to diagnose and monitor seizure disorders, sleep disorders, movement disorders, development and changes in behaviour. These are commonly known as 'events'.

HVT also allows us to monitor your child's brainwaves and video for a longer period of time compared with a routine EEG in our department. This increases the chance of us capturing some of their typical events on video. We can then compare the video with your child's brain activity during these events.

Are there any risks or side effects?

There are no known side effects of HVT. However, the glue we use to attach the electrodes to your child's head may cause some mild skin irritation.

How long will the test take?

HVT can take up to five days (day and night).

Who will carry out the test?

The test will be carried out by specially trained health professionals called neurophysiologists.

How should I prepare for the test?

For this test, you and your child will need to come to our department three times.

Before your child's first appointment, please:

- let your child's school know that they will need to stay at home for the duration of the test (you will need to continuously supervise your child during the recording and make sure they are visible on the camcorder)
- continue to give your child their usual medication

- wash your child's hair (do not then use any hair products, such as gel and hairspray)
- remove any hair weaves or extensions from your child's hair
- make sure your child is wearing loose, comfortable clothing that can be fastened at the front, such as a shirt or a zip up jumper (this will make dressing and undressing easier)

We also recommend bringing a DVD or some toys to your child's first appointment to help keep them entertained and distracted while we apply the electrodes (small sensors).

We see both children and adults in the neurophysiology department and there is a shared waiting room.

What will happen during the test?

First appointment

During your child's first appointment, we will explain the test to you in more detail and answer any questions you or your child may have. If you are happy to go ahead, we will ask you to sign a consent form. This form states that you understand what the test involves and that you agree for your child to have it. We will also ask you to sign a consent form taking responsibility for the equipment at home and bringing it back to our department afterwards. This includes travelling to and from your home, and the time it stays in your home.

We will then attach some electrodes (small sensors) to your child's head using special glue. This will not hurt. The electrodes will be connected to a small recorder, which will record your child's brain activity. This can be stored in a waist bag or rucksack. The setup will take around 90 minutes.

We will then give you a suitcase containing all the HVT equipment your child will need, including:

- a camcorder and camcorder stand
- batteries
- a record chart
- written instructions on how to set the equipment up at home

We will show you how to use the camcorder and how to set it up at home. You will then be able to go home.

Please make sure that your child is in view of the camcorder the whole time while you are recording (with the exception of going to the bathroom).

If your child feels an event coming, it is very important that they (or you) press the 'event' button on the machine (we will show you where this is during your child's first appointment). You or your child will also need to fill out a new row on their record chart each time an event occurs, detailing what happened before, during and after the event.

We will call you each day of the test to see whether your child has had any events and explain how to change the EEG headbox recorder batteries.

Second appointment

We will invite you and your child back in for a second appointment halfway through the test (usually on a Wednesday), so we can check the electrodes and download the data. We will also check the leads and make any adjustments if necessary. Please bring the video equipment with you to this appointment. You and your child will then be able to go home.

Third appointment (end of the test)

At the end of the test, we will invite you and your child back in for a final appointment, so we can remove the electrodes and most of the glue (we will use acetone and soft pads to remove the glue). Any residual glue can be removed at home with regular hair washes and gentle combing.

Please bring all the HVT equipment and your child's completed record sheet with you to this appointment.

Points to consider during the test

Your child **should not**:

- get the equipment wet (they will not be able to shower or have a bath for the duration of the test)
- do any vigorous exercise (this can damage the recorder)
- brush or comb their hair (this may dislodge the electrodes)
- chew gum
- leave your house for the duration of the test (except to come into hospital)

Your child **should**:

- behave as naturally as possible (but remember we will be able to see everything you and your child do on the video recording)
- stay in one room as much as possible during the day (with short bathroom breaks)

You **should**:

- position the camcorder to achieve the best view of your child (day and night)
- move the camcorder to your child's bedroom when they go to sleep (they must be supervised during the night as well as during the day)
- sleep in the same room as your child (you do not need to stay awake all night)
- make sure you plug the camcorder into a mains power socket when your child moves rooms
- make sure anyone who enters your home is aware they may be recorded (picture and sound)

For more information on what your child can and can't do during the test, please read the information on the back of the record chart.

When will I receive my child's results?

The results from your child's EEG recording and video will be reviewed and analysed by a physiologist and consultant neurophysiologist. They will then write up a report based on their findings and send this to the doctor who referred your child for this test. Your child's doctor will then contact you by telephone or by post, or arrange an outpatient appointment to discuss your child's results.

Contact us

If you have any questions or concerns, or if your child's appointment is not convenient for you, please contact us.

Clinical neurophysiology department
Wessex Neurological Centre
B level
Southampton General Hospital
Tremona Road
Southampton
SO16 6YD

Telephone: **023 8120 6785** (8am to 4.30pm, or please leave a message on the answer machine)

Children's epilepsy surgery nurse specialist
Telephone: **07794 368342**

For a translation of this document, or a version in another format such as easy read, large print, Braille or audio, please telephone **0800 484 0135** or email **patientsupporthub@uhs.nhs.uk**

For help preparing for your visit, arranging an interpreter or accessing the hospital please visit **www.uhs.nhs.uk/additionalsupport**

www.uhs.nhs.uk/childrenshospital

Version 1. Updated October 2021. Due for review August 2024. 2970