



NHS

Great Ormond Street  
Hospital for Children  
NHS Foundation Trust

This information sheet was last updated on 17/01/23

# Somatosensory evoked potentials (SSEP): information for families

The brain works by a series of electrical signals. When something happens to the body such as seeing a light or hearing a noise, the brain responds to this. This response is called an 'evoked potential'. This information sheet explains the procedure for a Somatosensory Evoked Potential (SSEP) test. An Easy Read version (page 4) is included for your child.

The person bringing your child to the SSEP should 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. If the person bringing your child does not have Parental Responsibility, we may have to cancel the test.

The electrical signals within the brain (also called brainwaves) can be recorded through the scalp. These are often very small but can be recorded using special techniques.

The Somatosensory Evoked Potentials (SSEP) test looks at the pathway from the nerves in the arms and/or legs through the spine to the brain.

## Getting your appointment letter

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

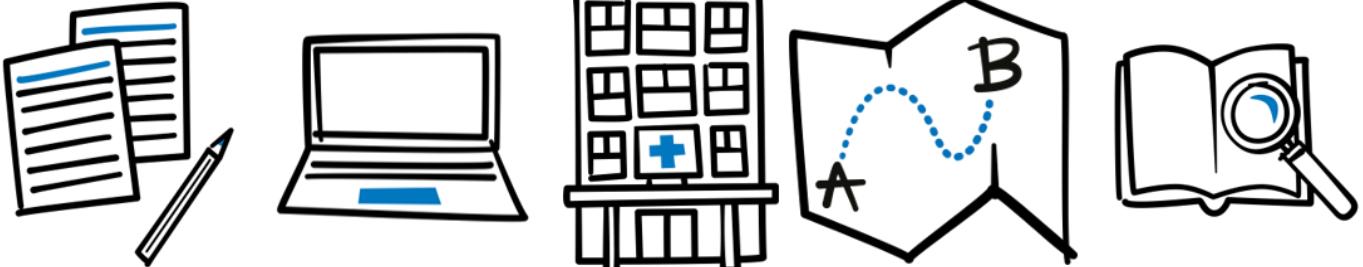
As so many children and young people need to use our services, we have had to introduce a policy where if a child cancels or does not attend **two** appointments in a row, we will inform their referring consultant and close the referral.

## 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.

We might have to access your child's wrists, collarbone, the base of their neck, ankles, the back of the knees and the lower back. To avoid having to take their clothes off at the appointment, it is helpful to wear loose-fitting clothing, preferably trousers and a top (no dresses or jumpsuits).



Skin moisturisers can interfere with the test, so please do not use them on the day of the appointment.

## The day of the test

Your child will have an SSEP in the Department of Clinical Neurophysiology, which is on Level 4, Southwood Building.

Once you are in the department, check in with reception. A clinical physiologist will come to meet you. They will confirm your and your child's details and take you to the recording room. They will explain in more detail how the test will take place, discussing any worries you may have.

## Students and trainees

As we are a teaching hospital, on occasion we might ask you if you would agree for a trainee to perform the test under supervision. Sometimes other healthcare professionals or students might ask to observe the test as well. Refusing consent will not affect your child's treatment.

## What does the test involve?

The physiologist will attach small silver discs (electrodes) to certain points on your child's head using a soft paste. Sometimes, they will measure your child's head and mark the points with a soft pencil before attaching the electrodes. Additional electrodes might be applied to the neck, shoulders, lower back and/or legs.

As each electrode is attached, the physiologist will clean the area with a cotton bud and some cream. This does not hurt but some children do not like it. 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 in the department but feel free to bring your child's own favourite book, toy, or comforter.

Once all electrodes are in place, a small electric pulse will be applied to your child's wrist and/or ankle to stimulate the nerve. This will make their fingers or toes tingle and twitch. This can be uncomfortable, but it is not painful. We repeat the stimulation several times so that plenty of responses are recorded. This gives us a better idea of how the nerve pathways are working.

## How long does the test last?

We usually allow up to 90 minutes for the test to be set up and completed. The length of the test depends on how much a child cooperates and how much information is needed.

## Are there any risks?

No, the test is very safe. It might be slightly uncomfortable, but it is usually painless. Only very rare minor skin irritation from the electrodes has been reported.

## After the test

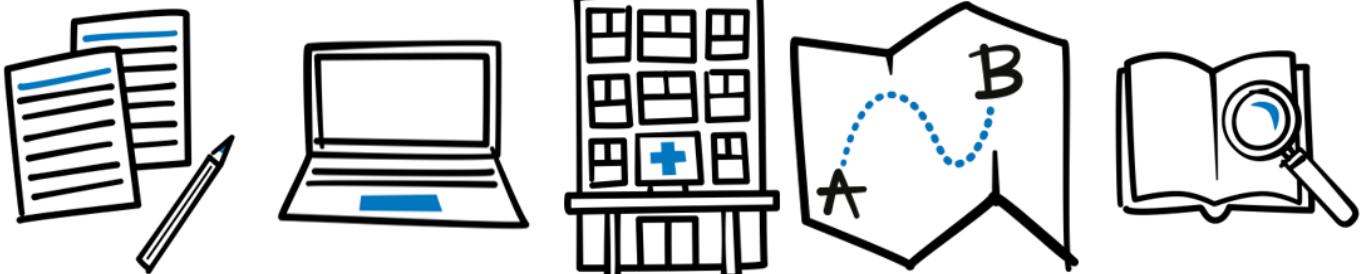
The physiologist will remove the electrodes from your child's head. This will not hurt as the paste stays soft and is easy to remove. They will also clean your child's hair, but it may feel a bit sticky to the touch until you wash it. You will be free to go if no other tests or appointments have been planned.

## 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. 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](https://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



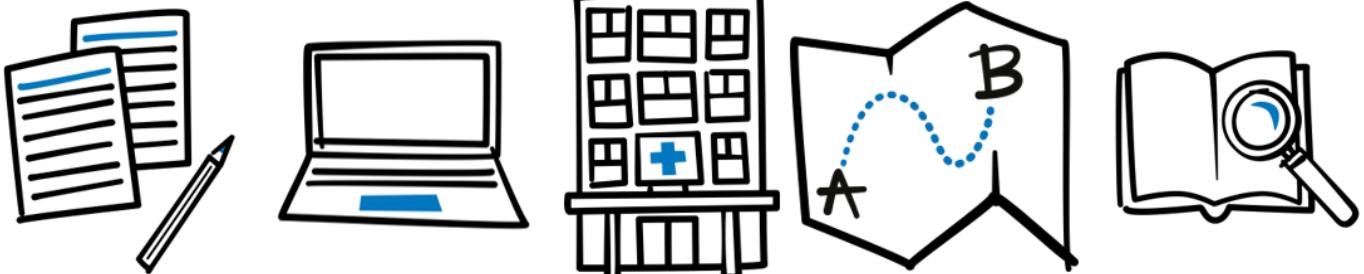
feedback card during your stay on the ward but if you haven't received one, please ask a member of staff. You can also provide feedback using this QR code or via our website: <https://www.gosh.nhs.uk/your-opinion-matters/>

## 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](mailto: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](mailto:complaints@gosh.nhs.uk)



## Having an SSEP test



You are coming to hospital for an Evoked Potential (EP) test. This looks at your nerves and brain waves. The results of the test will help doctors to look after you.



Your brain works using electrical signals. When the brain is made to react to something, the signals change. The EP test records these changes.



First, we will clean small areas of your head with a cotton bud and gel. This will not hurt.



On the clean locations we will put some silver discs with stickers. We use sticky paste to hold them in place. This will not hurt.



The silver discs have wires attached which connect to a computer



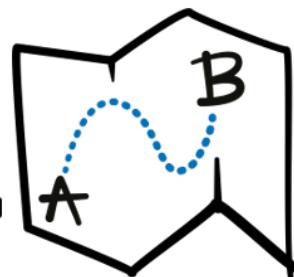
We will put another sticker on your hand or foot. This will make your fingers/toes twitch and tingle.



When the test is finished, we will take off the stickers and clean your head.



If you are not having any other tests, you can go home.





Please ask us if you have any questions.

