

Sensory Evoked Potentials (SEPs)

This leaflet is designed to give you some information about the investigation for which you have been referred. Your doctor may have already explained what an SEP involves, but you will probably still have some questions.

If after reading this leaflet you have any fears, queries or concerns, please do not hesitate to contact our staff before your appointment. You will also have the opportunity to discuss any of these issues on the day of the appointment prior to the start of the investigation.

WHAT IS AN SEP?

An SEP is a routine investigation performed on all age groups of patients, from babies to the elderly. It records the electrical response of the brain to electrical stimulation of peripheral nerves. The responses are detected using small disposable discs that are loosely attached to the scalp. These investigations are usually carried out to diagnose disorders of the peripheral nerves, spinal cord or brain.

BEFORE THE INVESTIGATION

You will also have received a questionnaire. **It is essential that you return it as soon as possible if you have a cardiac pacemaker or an implanted cardioverter or defibrillator.**

ON THE DAY OF THE INVESTIGATION

Please be on time and report to the reception. It is often helpful if you wear loose fitting clothes for the examination as this will reduce the need for undressing. If your arms are examined we usually need to get access to your shoulder and neck. If your legs need to be examined, you will be asked to take off your shoes and socks, tights or stockings and we need to get access up to your lower back and the back of your knee.

Some skin moisturisers and creams can interfere with the investigation and it is best to avoid them on the day.

THE PROCEDURE OF THE INVESTIGATION

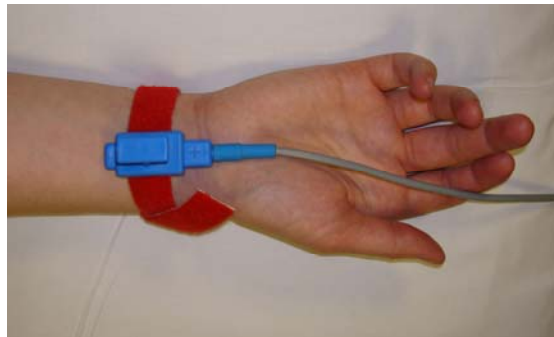
The investigation will be carried out by a clinical physiologist and will take approximately 30-45 minutes for one body region (arms or legs). We shall explain every step of the procedure as it progresses. Although some patients find the studies a little uncomfortable, they should not cause too much pain. If, however, you find any procedure too unpleasant or if you need a rest, let us know immediately. Any discomfort or pain will generally disappear within seconds once we stop the procedure.

We shall place a few small discs onto your head, shoulder, neck, back or back of your knee. These are held in place with a sticky, water-soluble paste that can be easily removed after the investigation. For the detection of good responses, the skin first has to be rubbed with some gritty paste. During this part of the procedure the clinical physiologist may ask you questions about your symptoms and medical history



Please inform the clinical physiologist, if you have any allergies to latex or plaster tape before the procedure.

You will then be asked to lie comfortably on a couch or sit in a chair and two sticky electrodes will be placed either on your wrist or on your ankle. Then small electrical pulses will be applied to provoke a small twitch of either your thumb or of your big toe. During this part of the test it is really important for you to be as relaxed as you can.



WHAT ARE THE RISKS?

SEPs are non-invasive and there is no risk of side effects unless you have an implanted medical device. If you carry a pacemaker or a cardiac defibrillator we will take certain precautions. Even then the risk is very small and with proper precautions malfunction of these devices has not been reported.

AFTER THE INVESTIGATION

When the investigation is complete, the discs are removed. SEPs do not have any persistent side effects. You will be able to return to your normal activities immediately after the investigation although there may be some small amount of paste left in your hair, which will wash away with shampoo.

RESULTS OF THE INVESTIGATION

The results of the test will be sent to the referring consultant within a couple of days as the recorded traces need to be analysed by a physician. It is generally best that the results of the neurophysiological investigation are discussed with your consultant, because the interpretation may depend on the results of other tests.