

# Auditory pathway monitoring during surgery

**i** **Information for patients**  
Clinical Neurophysiology



**PROUD TO MAKE A DIFFERENCE**

SHEFFIELD TEACHING HOSPITALS NHS FOUNDATION TRUST



This leaflet is designed to give you some information about the monitoring of your hearing pathway that you will be having during surgery. During your operation we will monitor the nerves along the auditory (hearing) pathway using a noise signal stimulus. This monitoring will reduce the risk of nerve damage during surgery but will not eliminate these risks entirely.

## **Consent**

We must obtain your consent for any procedure beforehand. Your surgeon will explain all the risks, benefits and alternatives of the surgery before they ask for your consent. If you are unsure about any aspect of this procedure, please do not hesitate to ask for more information.

## **Before the surgery**

We will normally perform a pre-operative brainstem auditory evoked potential (BAEP) before your operation. This will usually be performed in our department before the date of your surgery (a description of the test is on page 6 of the enclosed leaflet 'Pre-operative evoked potentials'). The results of this test provide us with a baseline response waveform to use during your surgery.

## **The day of your operation**

You will be taken to theatre and into the anaesthetic room. After you have gone to sleep we will position some small needle electrodes in your scalp and, depending on your symptoms, occasionally in your face. Two tiny tube electrodes with foam earplugs will be inserted into your ears.

Needles used are for single use and are disposed of after each patient.

## **During the surgery**

We will continuously monitor the auditory pathway during your surgery. Clicks are sent from earplugs along the pathway and the responses are recorded from the scalp electrodes. The surgeon will be informed of any significant changes to these responses.

If you have symptoms affecting your face, extra needle electrodes may be used to monitor signals to the face. These are checked at regular intervals during your surgery and again the surgeon will be informed of any changes.

## **After the operation**

All the electrodes will be removed before you wake up from the operation.

## **Are there any additional risks by having monitoring during my surgery?**

Some minor bruising may occur at the sites of where the needle electrodes have been inserted.

## **Who should I contact if I have any queries or concerns?**

If, after reading this leaflet, you are unsure about anything please contact the Department of Clinical Neurophysiology, Royal Hallamshire Hospital:

- **0114 271 3237**

Monday to Friday, 8.30am to 4.30pm



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