



## Spinal cord monitoring

### Spinal cord monitoring

Spinal cord monitoring is performed to help reduce the risks of paralysis during spinal surgery. It consists of two main types of recording which will be performed throughout your surgery.

### Somatosensory evoked potential monitoring

These are recordings of the responses from the sensation pathways that travel from your arms and/or legs up to the brain.

Small surface sticky pads will be placed onto your arms and/or legs after you are anaesthetised/asleep. Some small metal discs are also attached to your scalp using sticky paste and glue. These will all be removed usually before you wake up. Rarely, some blemishing of the skin on the arms and/or legs may occur, which will not last. Some glue may remain on your scalp but this will wash out.

### Motor evoked potential monitoring

These are recordings from the muscles when they receive a signal from the brain via the spinal cord.

Some small surface needles will be placed on your scalp once you are anaesthetised in order to deliver an electrical pulse. In addition to this, some small needles will be placed just under the skin to make recordings from the muscles in the arms and/or legs. There may be some small marks/bruise on the skin where these were placed after your surgery.

In rare circumstances, some patients are not suitable to have electrical stimulation of the scalp. During your pre-operative neurophysiology appointment, you will have been asked a short series of questions about your past medical history in order to determine your suitability for this procedure.

Electrical stimulation of the scalp is widely practiced and considered very safe, however the following very rare risks have been identified:

- Tongue/lip bite injury: 29/15,000 (0.2%) (Reduced further by using bite protection)
- Seizures: five in 15,000 (0.03%)
- Cardiac arrhythmia: five in 15,000 (0.03%)
- Minor scalp burns: two in 15,000 (0.01%)

If you have long hair, please attend theatre with your hair in loose, low bunch pigtails (no plaits or braids).

In addition to this, 24 hours prior to your surgery, please:

- Refrain from using any creams or lotions on the skin
- Wash your hair with shampoo but no conditioner and avoid using any other hair products especially oils and ensure it is dry.

Please use the space below to write down any questions you may have and bring this with you to your next appointment.

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