



Electroencephalography – Brain Wave Monitor

Whānau/Family Information – Neonatal Services

A brain wave recording or Electroencephalography (EEG) is one of the most valuable non-invasive tools in the Neonatal Intensive Care Unit, (NICU) providing information about electrical activity produced by the brain.



Your pēpi/baby may be suspected of having seizures (fits), be irritable or having behavioural changes.

A seizure is abnormal electrical activity in the brain which causes unusual movements or loss of consciousness. There may be an indication of stress around the time of birth or may reflect problems that occurred during the development of the brain.

An EEG will help us understand how your pepi brain is working, if the electrical activity appears normal or abnormal and whether treatment is required. It does not tell us anything about your pēpi intelligence or ability to learn.

Electrical brain waves can be detected by placing special fine needle probes just under the skin on your pēpi head. It takes about 20 minutes to apply the needle probes.

To place the needles, your pepi head will be measured, then the skin will be carefully cleaned. The needles are then taped into place to secure them.

(pictured here)

The needle leads are then attached to the EEG monitor so the brain wave pattern can be analysed for seizures during and after the recording. You will be fully informed of findings and whether any medication is required.



Ear muffs will be used to help reduce noise intensity as your pēpi will be sensitive to noise within the NICU environment.

We appreciate this is a stressful time for you and it may appear very daunting for you to see your pēpi having these needle probes in place. The nursing and medical staff will help, support and encourage you to continue to care for your pēpi.

If you have any questions or concerns, please do not hesitate to ask the doctors or nurses.

