



## Auditory Brainstem Response Test (ABR)

### What is an ABR?

The Auditory Brainstem Response Test is an objective test of hearing. It involves recording the signals in your brainstem that are generated in response to sounds introduced into your ears. When your ear picks up sounds, signals are generated in the cochlea (inner ear) that then travel up the nerve of hearing to your brainstem, and then on into your brain. We can pick up these signals by placing electrodes on the scalp. They are then analysed and magnified by a computer and we can look at them on the computer screen. The test can give us information about the level of sounds required to produce a response, and also to confirm the status of the auditory (hearing) pathway from the ear to the brain. This is valuable information that we cannot obtain from a normal hearing test.

### What does the test involve?

First, we need to apply some sticky electrode pads behind your ears and also one on your forehead. These are then connected via leads to the computer. Before we stick them on we need to rub the skin underneath with some slightly abrasive cream which helps to ensure there is a good contact. This is not painful, but may feel a little rough.

Then you will need to sit comfortably on a reclining chair or lie down on a couch and relax. We will place foam inserts into your ears (if you wear hearing aids, they will need to be taken off at this point). It is important for the test that you are still and relax as much as possible with your eyes closed. You can go to sleep if you want to.

### Do I have to do anything else?

No – while the computer does the recording you only need to lie still and relax. You do not need to tell us when you hear any sounds.

### Will I hear anything?

You may hear some clicks through the foam inserts. However, the test is done at various loudness levels, so if you do hear any clicks they will probably come and go.

### How long does it take?

Usually the test takes between thirty minutes and one hour, but may take longer depending on various factors.

### Do I need to bring anything with me?

No – only your hearing aids, if worn, so that we can communicate with you.

### Are there any after effects?

No – as soon as the test is finished you will be able to go home without any after effects.

### How do I find out more?

Please feel free to ask the audiologist if you have any further questions or would like more explanation.

## Information for Patients

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### Queen Elizabeth Hospital Audiology Centre

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