

Patient information factsheet

Auditory brainstem response (ABR) testing (general anaesthetic)

We have written this factsheet to explain what will happen at your child's auditory brainstem response (ABR) testing appointment, so that you know what to expect and can help prepare your child. We hope it will help to answer some of the questions you may have. If you have any further questions or concerns, please speak to a member of our team.

What is an auditory brainstem response (ABR) test?

An ABR test is a non-invasive test that uses electrodes (recording pads that measure brain activity) to measure how well sounds reach your child's brainstem. Your child's brain's response to sound will be measured via waveforms on a computer screen.

The test can only be completed when your child is asleep. This is because there is too much brain activity for us to record the hearing response when they are awake.

Why does my child need this test?

Your child has probably already been to the audiology department for a hearing test, but we were unable to get reliable results using the usual tests. ABR testing is used if a child cannot respond to sounds in a predictable way, such as pushing a button, playing a game or turning their head every time they hear a sound.

If we were not successful in assessing your child's hearing, we may arrange to perform an ABR test under general anaesthetic (medication that ensures your child is fully asleep and free from any sensation during a test or operation). If your child is already having a procedure that requires a general anaesthetic, we will try to arrange for the ABR test to be done at the same time.

How should I prepare for the test?

Our admissions team will contact you with information about where to go on the day and the time of your child's appointment. Please note that your child is likely to be booked in for the first slot of the day, which will require you to arrive at the hospital for around 7.15 to 7.30am. However, please wait for our admissions team to confirm your arrival time.

Your child will need to go without food for seven hours before their appointment. It is important that your child's stomach is as empty as possible, as this reduces the risk of vomiting during and after the general anaesthetic. Your child may continue to drink water up to an hour before their appointment.

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Are there any risks?

An ABR test is a safe and painless test.

There are some risks related to the general anaesthetic. Your child's consultant or anaesthetist will discuss these with you before you give your consent.

What happens during the test?

Once your child is asleep, we will attach the sticky pads (electrodes) to their forehead and behind their ears, and set up our equipment to begin testing. We will play sounds at different levels into your child's ear via a soft ear tip or headphone, and record their responses to sound on our computer screen. Once the testing is complete, we will gently remove the sticky pads and pack our equipment away.

How long will the test take?

Testing time may vary depending on how good the recording conditions are and whether there is any other surgery being completed. The test usually takes around an hour, but it can sometimes be longer.

You will usually be able to go home with your child on the same day, but you will need to stay at the hospital for at least four hours after the test while your child recovers from the general anaesthetic. If your child is undergoing other procedures on the day this may be longer.

When will I receive the results?

We may be able to give you your child's results on the day. If we are unable to, we will give you a ring once we have analysed the results to talk through what we found and arrange any further appointments if necessary.

Contact us

If you have any questions or concerns, please contact us.

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