



Great Ormond Street Hospital for Children NHS Foundation Trust: Information for Families

Auditory Brainstem Response (ABR) tests for babies with cleft palate

Babies with cleft palates can be more likely to develop fluid in the middle ear (otitis media with effusion known as 'glue ear') than other babies. It is important that otitis media with effusion is monitored closely or treated, as these conditions can diminish hearing by 20 decibels or more. This can partly affect your baby's appreciation of sounds and words (especially low and moderate conversation and in noisy background situations), which in turn can affect their development of speech and language. If not monitored and untreated, in the long term this may lead to complex chronic middle ear disease.

This information sheet explains about the Auditory Brainstem Response (ABR) test and what to expect when your baby comes to Great Ormond Street Hospital (GOSH).

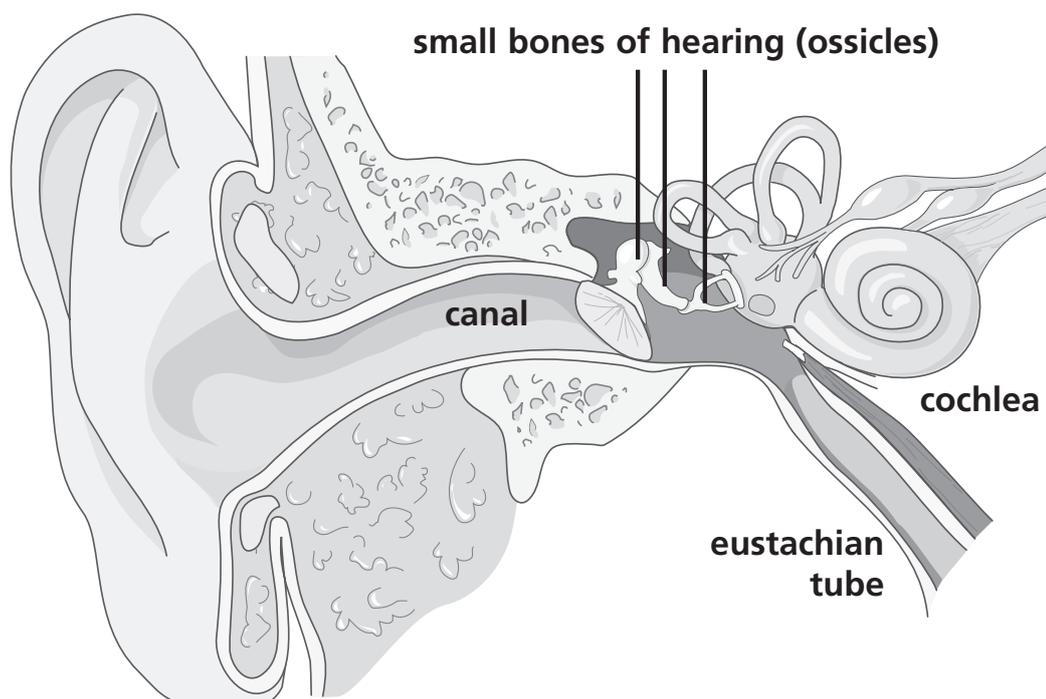
About the Auditory Brainstem Response (ABR) test

An Auditory Brainstem Response (ABR) test is used to measure how well sound is conducted through the ear and passed to the midbrain.

The volume of the sound is varied throughout the test so that we can work out your child's 'hearing threshold' for each ear, that is, the

quietest sound that provokes a response in the midbrain.

This is a specialised test so your baby will need to have this test even if they have passed the usual newborn hearing tests.





Preparing for the test

The ABR test can only be carried out if your baby is asleep.

- Please keep your baby awake until the appointment
- Do not give your baby a feed for at least two hours before the test is scheduled – we will ask you to feed them once they are ready for the test, as usually babies sleep well after a full feed.

If they do not sleep or wake up for an extended period during the test, we will have to complete the testing on another day.

Please do not bring your baby's brothers and sisters to the appointment as this can make it harder to get your baby to sleep. If you do have to bring your other children with you, please bring another adult with you to supervise them before and during the test.

You may be at GOSH for an entire morning or afternoon, depending on how quickly your baby drops off to sleep and stays asleep during the test. Please bring a couple of feeds and a spare nappy.

What does the test involve?

When you arrive at the Audiology department, please tell us you have arrived and then sit in the waiting area. If you are running late, please telephone us on the number below but please be aware that we may have to reschedule the test if you are very late.

We will call you through to the testing room to get your baby ready for the test. We will clean your baby's skin on their forehead and behind each ear then attach three sticky electrode pads. We will place an earpiece into each canal to present the sounds. Following these preparations you will be able to give your child a feed and wait for them to drop off to sleep naturally.

During the test, we will make specific sounds into each of your child's ears in turn and record the response from the midbrain on a computer. You will be able to see the display which shows midbrain waves in response to each sound. The sounds start at a level which can be easily heard and then we gradually make them quieter during the test to work out the minimum volume that makes the midbrain respond. Finally, we check your baby's eardrums by inserting a small probe into each ear canal in turn.

Once your baby is asleep, the test takes a little more than an hour. If we cannot complete the test, for instance if your baby does not fall asleep or wakes up during the test, we may need to reschedule it for another occasion.

What happens afterwards?

Once the test has finished, we will gently peel off the sticky pads and wipe away the gel, and remove the earpieces. This does not hurt, but your baby will probably wake up at this point. Usually you will then be able to see one of our Audiology doctors to discuss the test results once the report has been completed. They will explain what the tests have shown and tell you about the various options for treatment if needed. Occasionally, we may need to make another appointment to discuss the results.

If you have any questions, please call the Audiology Department on 020 7813 8315.