

# Your baby's hearing screen



## Information for those with parental responsibility

Your baby will be offered a hearing screening test shortly after birth. This quick and simple test is offered to all newborn babies in Northern Ireland.

## The purpose of newborn hearing screening

The aim of the programme is to identify babies born with a permanent childhood hearing impairment (PCHI) at an early stage, to allow timely intervention and improved outcomes. Approximately 1 to 2 babies in every 1,000 are born with a permanent hearing loss in one or both ears.

## Participation in newborn hearing screening

This screening test is recommended for your baby, even if there is no history of hearing loss in your family. Finding hearing loss (in one or both ears) early is important for your baby's development.

## When and where will the screening test be done?

The screening test will usually be done in the maternity unit before you go home or at an outpatient clinic within the first few weeks of life. If your baby is transferred to a neonatal unit (NNU) or special care baby unit (SCBU), they may be re-screened if they remain there for over 48 hours continuously.

## What does the screening test involve?

The screening test is painless and is usually done while the baby is relaxed or sleeping. A trained screener carries out the test at the bedside or in a quiet place. The screener will place a small soft tipped ear piece in the outer part of your baby's ear that sends clicking sounds into the ear. When the inner part of the ear receives a sound, it usually produces a response (see image on last page). Using a computer, the screener can see how your baby's ear responds to the sounds. This is called the automated otoacoustic emission (AOAE) test.



## When will I receive the results?

The results will be given to you by the screener as soon as the screening test is complete.

## What do the results mean?

If the screening test shows a clear response from both of your baby's ears, this means that your baby is unlikely to have a hearing loss. Your baby's Personal Child Health Record (PCHR or 'red book') contains a 'checklist' which gives advice about the sounds your baby should react to and the types of sounds that they should make as they grow older.

If you have any concerns regarding your baby's hearing, **at any age**, you should discuss them with your health visitor or doctor. This is important, as hearing loss can occur at any age.

If the screen does not show clear responses from one or both ears, this does not necessarily mean that your baby has a hearing loss. A follow-up screen will be carried out. Some common reasons for not having a clear response include:

- baby was unsettled at the time of the test;
- background noise at the time of the test;
- fluid or a temporary blockage in the ear.

## What does the follow up involve?

The follow up will be done before you leave hospital, or an appointment will be made for an outpatient clinic.

The AOA test is usually repeated but if you are leaving hospital early, or there are no clear responses with the repeat AOA test, your baby will have an automated auditory brainstem response (AABR) test. This test involves three small sensors being placed on your baby's head and shoulder. Headphones are put over baby's ears and a series of clicking sounds is played. A computer measures how well your baby's ears respond to sounds. This test takes longer than the AOA test (around 15 to 30 minutes) and is carried out while your baby is relaxed or sleeping.

Even if your baby appears to respond to sound, it is still important that your baby has a follow-up screen to establish if they now have a clear response, or if further tests are required.

## What happens if the follow up shows clear responses?

This means your baby is unlikely to have a hearing loss. However, it is still important that you remain vigilant about your baby's hearing. If you have any concerns regarding your baby's hearing, at any age, you should discuss them with your health visitor or GP.

## What happens if the follow-up screening test does not show a clear response from both ears?

If there is not a clear response from one or both of your baby's ears, you will be referred to your local audiology department for diagnostic tests to measure your baby's hearing levels. This does not necessarily mean that your baby has a hearing loss. You will be given a leaflet explaining what this involves.

## What is the likelihood of my baby having a hearing loss?

Most babies will record strong responses at the follow-up screen and at the further tests carried out by the audiologist. However, there is the possibility that your baby may have a hearing loss. Finding out early that your baby has a hearing loss means that you and your baby will get advice and support as soon as possible.

## Targeted follow up

Any baby who has particular risk factors, identified at the time of newborn hearing screening, will be offered a follow-up audiology appointment when baby is approximately eight months old.



## Processing your baby's information

Information about your baby's newborn hearing screen results are recorded in their PCHR 'red book' and on the regional Smart4Hearing (S4H) IT system. We share your baby's newborn hearing screening results with staff who provide newborn hearing screening and with audiology services. To help us provide the best care and service for you and your baby, we may need to share your information with other relevant professionals, such as your GP and Health Visitor and other healthcare bodies if you move out of Northern Ireland.

A dedicated privacy notice has been developed to describe how personal information will be processed within the S4H system and this is available to view/download at: [www.publichealth.hscni.net/directorate-public-health/service-development-and-screening/newborn-screening](http://www.publichealth.hscni.net/directorate-public-health/service-development-and-screening/newborn-screening)

Contact details for your local newborn hearing screening office:

- Belfast Health and Social Care Trust                    028 9615 2752
- Northern Health and Social Care Trust                    028 2563 5674
- South Eastern Health and Social Care Trust                    028 9056 4748
- Southern Health and Social Care Trust                    028 3856 2125
- Western Health and Social Care Trust                    028 7161 1452



Translations of this leaflet are available to view/download at:  
[www.publichealth.hscni.net/publications/newborn-hearing-screening-english-and-translations](http://www.publichealth.hscni.net/publications/newborn-hearing-screening-english-and-translations)



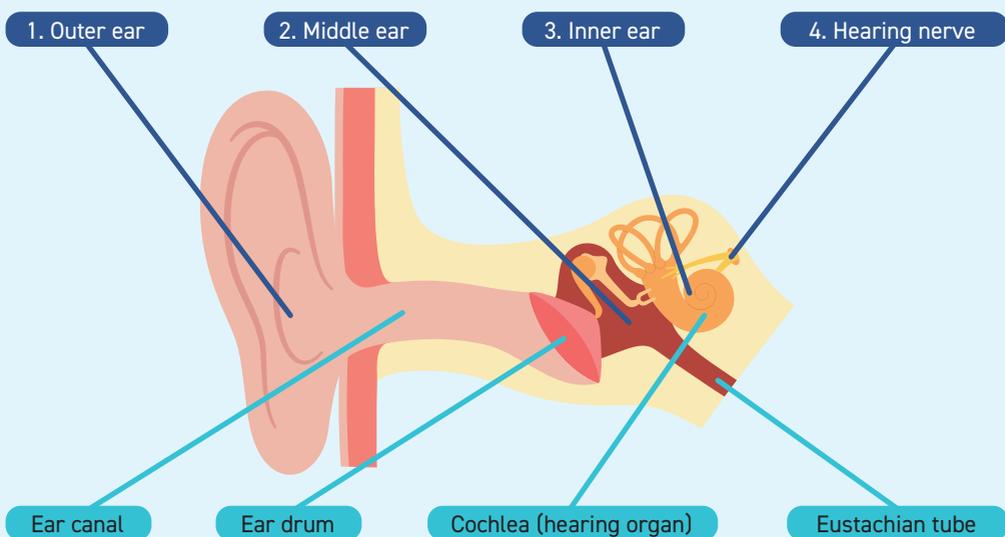
Find more information on NI Direct:  
[www.nidirect.gov.uk/articles/newborn-screening](http://www.nidirect.gov.uk/articles/newborn-screening)



You can also contact the National Deaf Children's Society (NDCS) freephone helpline on 0808 800 8880 (voice and text)  
[www.ndcs.org.uk/](http://www.ndcs.org.uk/)

## How sound travels through the ear

1. The outer ear collects sound waves, which travel down the ear canal towards the eardrum.
2. Middle ear – the sound waves cause the eardrum to vibrate. This in turn vibrates the middle ear bones and they transmit the vibrations to the inner ear.
3. Inner ear (cochlea) – vibrations are converted into electrical signals.
4. The hearing nerve transmits the signals to the brain, which interprets them as sound.



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