

# Your child's hearing test appointment

## Information for parents and carers

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You and your child have been invited to the Paediatric Audiology Department so we can carry out a hearing test.

A hearing test is a simple, painless method of looking at the pathways of the ear. You will be seen by an audiologist and the appointment will be in either a sound proof or sound treated room.

The hearing test may be performed by either one or two audiologists. When testing children we have found that it works best if we treat the hearing test as a fun game rather than a formal test. The audiologist will start with the hearing test 'game' and then talk to you, and answer any questions that you may have after the test is complete.

There are many different ways of performing a hearing test on a child and we may perform just one test or a whole range of tests in order to get the right information about your child's hearing.

The following information explains the tests/games that may be carried out with your child when you attend your clinic appointment:

### Otoacoustic Emission Testing

This is a simple painless method of assessing your child's inner ear function. A small soft tipped ear piece is placed in the outer part of your child's ear, which sends clicking sounds down the ear. When the ear receives sound, the inner part, known as the cochlear, produces a response to sound. The equipment can pick up this response to sound and this is known as an otoacoustic emission. The test takes only a few minutes and there are no side effects. The test does not hurt and is not uncomfortable. It can be done whilst your baby is settled although we appreciate this can be a challenge for older children!

### Visual Reinforcement Audiometry (VRA)

This is a simple, painless, and fun method of testing your child's hearing. The audiologist will ask you to put your child in a small chair or sit the child on your knee. An audiologist will sit in front of you and distract your child with a few simple toys. It's important that you just sit back and relax so that you don't give any clues to your child. A sound will then be played through a speaker on one side. When your child turns, they will be rewarded with a visual clue which will be for example, a cuddly animal in a box.

VRA testing using a speaker tells us information about your child's overall hearing and does not test each ear separately. Sometimes it may be necessary to find out more information about each ear individually and if this is the case then a small soft ear tip will be placed in each so the sound can be delivered to each ear separately.

VRA can take up to 15 minutes depending on the child's concentration and there are no side effects. The test does not hurt and is not uncomfortable. It can be used for children aged from 7 months through to about 3 years of age but can also be used to test older children who are unable to take part in other forms of testing.

## Performance Testing

This is a simple, painless, and fun method of testing your child's hearing. The audiologist will ask you to put your child in a small chair or sit them on your knee. An audiologist will sit in front of you with some toys such as a 'toy in the boat' or some pegs and a board. It's important that you just sit back and relax so that you don't give any clues to your child. A sound will then be played through a speaker on one side. We will then condition your child to put the peg on the board or a toy in the boat when they hear the sound. Your child will be rewarded with lots of smiles and praise.

Performance testing when using a speaker tells us information about your child's overall hearing and does not test each ear separately. Sometimes it may be necessary to find out more information about each ear individually and if this is the case then a small soft ear tip will be placed in each ear or headphones will be placed over your child's ears.

Performance testing can take up to 15 minutes depending on the child's concentration and there are no side effects. The test does not hurt and is not uncomfortable. It can be used for children aged from 2½ years and can also be used to test older children who are unable to take part in other forms of testing.

## Play Audiometry

This is a simple, painless, and fun method of testing your child's hearing. The audiologist will ask you to sit your child in a small chair or sit them on your knee. An audiologist will sit in front of you with toys such as some pegs and a board. It's important that you just sit back and relax so that you don't give any clues to your child. Some loud bleeps and tones will then be played through some headphones which will be lying on the table. We will then condition your child to put the peg on the board when they hear the sound. Your child will be rewarded with lots of smiles and praise. When the child has grasped the game the loud tones and bleeps will be turned down and the headphones will be placed over your child's ears. We will then be able to obtain information about your child's hearing by testing the ears separately.

When testing with headphones, the sounds go into the ear canal, through the middle ear to reach the inner ear. This is known as air conduction testing. Air conduction testing looks at how the whole hearing system responds to sound.

After we have tested with the headphones it may be necessary to test your child's ears using another device called a bone conductor. This bone conductor is placed behind the ear. As your child did with the headphones, they will be asked to put a peg on the board when they hear a sound. When testing with the bone conductor this sends sounds directly to the inner ear. Sounds are sent through the bones of the head and do not pass through the eardrum or the middle ear. This is called bone conduction testing.

Your appointment time will be approximately 30 to 45 minutes and play audiometry may take up to 20 minutes depending on the child's concentration. The hearing test is painless and does not have any side effects. The test does not hurt and is not uncomfortable. It can be used for children aged from 2½ years and can also be used to test older children who are unable to take part in other forms of testing.

## Pure Tone Audiometry (PTA)

This is a simple, painless, and fun method of testing your child's hearing. The audiologist will ask you to sit your child in a small chair or sit them on your knee. An audiologist will sit beside your child. It's important that you just sit back and relax so that you don't give any clues to your child. Some loud bleeps and tones will then be played through some headphones which will be lying on the table. We will then condition your child to press a button when they hear the sound. Your child will be rewarded

with lots of smiles and praise. When the child has grasped the game the loud tones and bleeps will be turned down and the headphones will be placed over your child's ears. We will then be able to get more information about your child's hearing by testing the ears separately.

When testing with headphones, the sounds go into the ear canal, through the middle ear to reach the inner ear. This is known as air conduction testing. Air conduction testing looks at how the whole hearing system responds to sound.

After we have tested with the headphones it may be necessary to test your child's ears using, another device called a bone conductor. This bone conductor is placed behind the ear. As your child did with the headphones, they will be asked to press a button when they hear a sound. When testing with the bone conductor this sends sounds directly to the inner ear. Sounds are sent through the bones of the head and do not pass through the eardrum or the middle ear. This is called bone conduction testing.

Your appointment time will be approximately 30 to 45 minutes and play audiometry may take up to 20 minutes depending on the child's concentration. The hearing test is painless and does not have any side effects. The test does not hurt and is not uncomfortable. It can be used for children with a development age of aged from 4 to 5 years.

## **Further information**

If you need any further information, please contact the Audiology department: 0131 312 1407.

## **Interpretation and Translation**

This leaflet may be made available in a larger print, Braille or your community language. Please contact audiology and we will do our best to meet your needs.

Reference: Boys Town National Research Hospital: [www.boystownhospital.org/Pages/default.aspx](http://www.boystownhospital.org/Pages/default.aspx)

