NHS
Royal Berkshire
NHS Foundation Trust

Tests for children with permanent hearing loss

You have been given this leaflet because a hearing test has shown that your child has a hearing loss. This leaflet will tell you about the range of tests that may be performed to try to find the cause of your child's hearing loss. The tests performed will depend on the type of hearing loss, and your child's and family's medical history and examination.

What happens next?

When your child is diagnosed with a permanent hearing loss your audiologist (hearing specialist) will refer them to several other professionals including a community paediatrician (doctor specialising in children). An appointment with the paediatrician will be offered at Dingley Child Development Centre. The paediatrician will discuss your child's health, do some examinations and discuss any further investigations that may be required. If your child's hearing loss is picked up at the newborn screening test, there is one investigation (a urine or saliva test) that we need to do quickly. You will be given a separate leaflet about this and have the chance to discuss it with the paediatrician.

What are the causes of hearing loss?

There are many possible causes of permanent hearing loss. In about 25% of cases we do not find the cause even though we carry out many tests. We may have an idea of the likely cause, but not be able to confirm it (particularly some hereditary hearing losses).

Genetic – about 50% of cases are genetic

Most inherited hearing loss is a single problem and not part of a syndrome*. In some cases, an inherited hearing loss occurs as part of a syndrome. Some syndromes cannot be diagnosed early on because some symptoms only appear later in life.

**Syndrome is a medical term meaning a collection of symptoms or signs that commonly occur together*

Environmental

Injuries to the ear or head, infections or illnesses such as meningitis, complications during pregnancy or birth, including infections, prematurity or severe jaundice may all be linked with hearing loss.

Why do we carry out tests?

- To try to find the cause of your child's hearing loss.
- It may be possible in some cases to treat the hearing loss or stop it from getting worse.
- To find out if the hearing loss is part of a syndrome with other health implications.
- To help us give you advice if there is a possibility that your other children may be affected by hearing loss.

- To find out if putting a cochlear implant in your child's ear might help their hearing.

What tests are carried out?

Some or all of these investigations will be offered to your child and there may also be other tests suggested. The reasons for each test will be explained to you by the paediatrician and you will have a chance to ask any questions, so that you can decide whether you want your child to have the tests and the best time for these to be carried out.

Eye tests

Children with hearing loss rely on their eyesight more than other children. Some children with hearing loss may also have an eye problem (often something as simple as short-sightedness). An eye test can help to diagnose a syndrome associated with hearing loss, and this includes asking the ophthalmologist (eye doctor) to look at the back of the eye.

Blood and urine / saliva tests

Blood and urine / saliva tests are used to look for infections that sometimes cause hearing loss. There are several infections that can cause hearing loss in babies if the mother contracts them during pregnancy. The commonest in the UK is the virus CMV (cytomegalovirus) which is very common in the general population, is spread like the common cold and a woman may not even become unwell when she contracts it. In some cases it is possible to treat the infection early on to prevent any hearing loss getting worse.

A blood sample can be taken for testing for possible genetic causes of hearing loss.

Imaging

MRI (magnetic resonance imaging) looks at the brain, inner ear structures and hearing nerve to see if these have developed properly.

CT (computed tomography) looks at the structure of the ear and is best for looking at the bones of the inner and middle ear.

ECG

An ECG records the rhythm and electrical activity of the heart. There is a very rare syndrome linking severe and profound hearing loss to a heart rhythm problem. This condition is treatable.

Referral to a geneticist

Your doctor may refer you to a clinical geneticist. Genetic counselling gives families information on the causes of a range of inherited conditions, how an inherited condition might affect the child and family in future, and how likely you are to have another child with the same condition.

Hearing tests for the family

Because hearing loss is commonly inherited, it is very helpful for your child's first degree relatives (parents and siblings) to have their hearing tested. This may highlight a possible inherited hearing loss, even if family members are not aware that they have any difficulties hearing (particularly milder losses, or a hearing loss just in one ear). The paediatrician can make these referrals.

More information

National Deaf Children's Society
5th Floor, 167-169 Great Portland Street, London W1W 5PF
Switchboard: 020 7490 8656 Information /helpline: 0808 800 8880
Text (SMS): 0786 0022 888 British Sign Language (BSL) video relay via website
Email: ndcs@ndcs.org.uk Website: www.ndcs.org.uk

Contact a Family
Wenlock Studios, 50-52 Wharf Road, London N1 7EU
National freephone helpline: 0808 808 3555 Chatbot/web form via website
Email: helpline@contact.org.uk Website: https://contact.org.uk/

If you have any further questions, please contact:

The Audiology Department on tel: 0118 322 7238
Email: audiology.royalberkshire@nhs.net
Website: www.royalberkshire.nhs.uk/featured-services/children-young-people/children-s-hearing-services/

To find out more about our Trust visit www.royalberkshire.nhs.uk

If you would like this leaflet in other languages or formats (e.g. large print, Braille or audio), please contact the Audiology Department.

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