

Hearing test

Kronoberg County Council is offering hearing tests for new-born babies. The aim is to detect hearing impairment early in life, so that the means can be put in place to provide the conditions for good language development.

How does it work?

The method is well-proven and is called OAE – Otoacoustic Emissions. A small plug containing a transmitter and microphone is placed in the child's ear canal. A high-pitched (treble) type of clicking sound is transmitted and, when the hair cells in the inner ear respond, this creates a faint sound that is picked up by the microphone. An OAE response has thus been recorded, which suggests that the hearing is probably normal. The test is quick, painless, and safe.

When and where?

This test is being offered to all new-born babies in Kronoberg, usually before they go home or in conjunction with a return visit, when a PKU test will also be carried out. For more information, please see overleaf.

What happens next?

Even if the new-born child has normal hearing, hearing problems may arise later, usually as a result of middle-ear catarrh. It is important, therefore, to pay attention to the child's hearing and language development.

What if the result is not what we want?

In a small number of children, the result is not as we would wish, though most of them still have normal hearing. The technical circumstances of the measurement can affect the result – for example, if the child still has amniotic fluid or vernix in the ear canal. If the result is unsatisfactory, the test is repeated.

Only 1-2 out of 1,000 children are born with a hearing defect. These children will be followed up at the audiology clinic at the Central Hospital in Växjö.

Any questions? Contact the paediatric audiologist at the Ear, Nose and Throat Clinic. Tel.: +46 (0)470-58 73 54, Mon-Fri 11.00-12.00

POX screening

On 1 October 2010, the maternity ward at the Central Hospital in Växjö introduced an additional test, so-called POX screening. With this, we use a special device to check the oxygenation and circulation in the child's right hand and one of the feet. The test is quick, and totally painless for the child. Ideally, we would like to carry out this test at some time between the ages of 6 and 24 hours, but it is possible to do it earlier or later than this. It should be done before going home from the maternity ward.

The reason we have introduced this new procedure is that we do not detect all children with serious heart disorders in the normal paediatric examination. This test helps us to identify more children with serious heart disorders before they develop symptoms.

If you have any questions, you are welcome to talk to the midwife or paediatrician at the time your child is tested.

PKU test

A PKU test has been performed on all new-born children in Sweden since the mid-1960s. The aim is to detect children who have one of a number of rare but serious congenital disorders that can be treated, and where early diagnosis is critical to the prognosis.

If any analysis reading is abnormal, a paediatrician will telephone and summon your child for a check-up. The risk of your child having any of these disorders is very small. Of the approximately 100,000 children born each year in Sweden, around 60-70 have one of the disorders included in the test.

At the beginning, the test was only for the disorder called phenylketonuria (PKU), but thanks to ever-improving methods the number of disorders covered by the test has increased several times. An up-to-date list of the disorders currently tested for can be found under the heading 'PKU Laboratory' on the Centre for Inherited Metabolic Diseases (CMMS) page at www.karolinska.se/en/departments/departments/centre-for-inherited-metabolic-diseases. There, you can also find additional information about the PKU test.

The test must be done as soon as possible after the age of 48 hours. A few drops of blood are collected on a piece of filter paper, allowed to air-dry, and then sent to the PKU laboratory for analysis. The analysis results are ready within a week. Sometimes, however, the sample is not sufficient for the analysis. We then have to ask for a further sample. We then save the sample for additional analyses, quality assurance, and for the purpose of method development. The sample will also be available for ethically-reviewed research projects. The sample will be stored and handled in accordance with the Swedish Biobank Act.

Ear, Nose, Throat and Skin Clinic
Paediatric Department
Kronoberg County Council

PKU Laboratory
Karolinska University Hospital

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Hearing test, POX screening and PKU test for the new-born

