Newborn hearing tests & tracking – information for parents

Dear parents,

Good hearing is essential for your child's development. It helps learning to speak clearly, understand language, and connect with the people around them. Early detection of any hearing loss allows for timely support and effective treatment. Newborn hearing screening offers a simple, free, and early check — right at the maternity clinic — so your baby gets the best start in life.

The Newborn Hearing Screening (NHS) Tracking center in Niedersachsen supports your family until it is determined whether your child has normal hearing or whether treatment is necessary. If your child's hearing couldn't be checked directly, the center will contact you to make sure that no important examination will be missed. For this follow-up, certain data, including your child's name, date of birth, examination method, and test results will be transmitted. In the event of conspicuous findings, the mother's contact details will also be transmitted. Data processing is strictly limited to your consent and complies with legal regulations.

If the first test results indicate further testing, a follow-up examination should be scheduled at a specialist's within two weeks. There are two approved methods for the **Newborn hearing screening: TEOAE (Transient Evoked Otoacoustic Emissions) and AABR (Automated Auditory Brainstem Response)**.

Both test methods are gentle, painless, and completely safe for your baby. They're preferably done while your child is calm or asleep – often in the first days after birth at the maternity ward, or later at an ENT clinic or a pediatric surgery.

TEOAE: A Simple Hearing Check

In a TEOAE (Transient Evoked Otoacoustic Emissions) test a tiny, soft probe is gently placed in your baby's ear. The probe plays faint clicking sounds, and the inner ear (cochlea) responds with minimal vibrations. These vibrations are measured to check how well your baby's ear detects sound. The test is quick, painless, and usually takes just a few minutes.

If the results are unclear, it doesn't necessarily mean that there's a hearing issue. Sometimes, background noise, movement, or fluid in the ear can affect the test. In these cases, the TEOAE will be repeated or an AABR test will be recommended for further clarity.

AABR: A more detailed Hearing Test

The AABR (Automated Auditory Brainstem Response) test is a more in-depth assessment which measures how your baby's brain responds to sound. Soft electrodes are gently placed on your baby's forehead and behind the ears, then sounds are played through small earphones or earplugs. The electrodes detect the brain's natural responses to these sounds, helping to confirm whether the auditory nerve and the brain are processing sounds correctly.

This test is recommended when additional clarity is required — in case of premature babies or those with other risk factors. It is safe, painless, and non-invasive.

Further information:

NHS Niedersachsen

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