

Newborn Hearing Screening

Language Development and Normal Hearing

The most important time for a child to learn a language is from birth through age 3. Children need to develop language skills (communication skills) to:

- interact socially with family, friends and others
- do well in school
- be successful on the job
- engage in other life activities.

Newborns with normal hearing begin to learn speech and language in the first 6 months of their lives to help them learn how to talk.

Importance of Newborn Hearing Screening

Research shows that babies with hearing loss who are identified early (before 6 months of age) are still able to develop language skills on schedule.

According to the National Institutes of Health (NIH), about 2 or 3 out of every 1,000 children in the United States are born with a hearing problem.

The Minnesota Department of Health (MDH) reports that 4 babies a week in Minnesota are born with some type of hearing loss.

To identify newborns with a hearing problem and start treatment in time, the MDH recommends:

- all newborns be screened (checked) for hearing loss by 1 month of age.

For newborns showing a possible hearing problem, MDH recommends:

- assessment (more extensive testing) by 3 months of age
- treatment starting by 6 months of age.

Possible treatments may include hearing devices, cochlear implants or non-verbal communication systems such as sign language.

Newborn hearing screenings are endorsed by the NIH, the American Academy of Pediatrics and the Centers for Disease Control and Prevention in addition to the MDH.

What to Expect During a Newborn Hearing Screening

Two hearing tests are used to screen newborns. Your health care provider may use one or both of these tests, which are simple and painless for your baby.

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Otoacoustic emissions

This test checks how parts of the ear respond to sound.

During the screening:

- all your baby has to do is lie still. Some newborns sleep through the procedure.
- a sponge earphone is placed into your baby's ear canal.
- the ear is stimulated with sound and the "echo" is measured. An echo is found in babies who have normal hearing. If there is no echo, there could be hearing loss.

Auditory brain stem response

This test checks how the brain and the brain stem (the part of the nerve that carries sound from the ear to the brain) respond to sound.

During the screening:

- all your baby has to do is lie still. Some newborns sleep through the procedure.
- your baby will wear earphones.
- there will be electrodes attached to your baby's head, shoulder and neck.
- sounds will travel through the earphones. The electrodes will measure the electrical activity in your baby's brain when he or she should be hearing sounds through the earphones. The screening will result in either a "pass" or "refer" for your baby.

After the Screening

If a screening suggests a possible hearing problem, your baby's health care provider will most likely suggest a follow-up screening and a referral to an audiologist for more extensive testing. A staff member will be happy to make a referral appointment for you.

The sooner a hearing problem is diagnosed and treated, the better chance a child will have to develop essential language skills on schedule.

Whom To Call With Questions

If you have any questions about a newborn hearing screening, call your baby's health care provider.

**Information adapted from the
Minnesota Department of Health and
the National Institutes of Health.**