

# The Nebraska Newborn Hearing Screening Program



Congratulations on your baby's arrival. A new baby in your home provides an exciting and interesting time for you.

Babies begin developing speech and language from the moment they are born. They learn by listening and interacting with sounds and voices around them. Hearing is tested at birth so that hearing loss can be identified early in life. Much can then be done to prevent delays in speech and language.

## **Why Should My Baby's Hearing Be Screened?**

Approximately three babies out of every 1000 have some degree of hearing loss. Hearing loss in babies is easy to overlook because it is not visible, and they cannot tell us they are unable to hear. Fortunately, new tests allow us to discover hearing loss in the first days of life. Before newborn screening, many hearing losses were missed until 2 1/2 years of age or later. Undetected hearing loss may delay a baby's speech, and language development. Appropriate services can be provided to prevent these problems. They should start no later than six months of age.

Newborn Hearing Screening makes a difference for all children and their families. It is important for you, as the parents, to be sure that your baby's hearing is checked in infancy and early childhood. The first six months of life are the most critical for speech and language development.

## **How do they screen my baby's hearing?**

A baby's hearing can be screened as early as 24 hours of life. There are two types of hearing screening tests: Auditory Brainstem Response (ABR) and Otoacoustic Emission (OAE). Both tests take only minutes to complete, and most babies sleep through the hearing screening.

The ABR screening uses miniature earphones and band-aid-like electrodes placed on the head that detect brainwaves. This test measures the brain responding to sounds to determine if sounds are heard normally.



Photo courtesy of Natus Medical

The OAE screening uses a soft ear probe and a miniature microphone to measure the "echo" that is sent back to the ear canal as it responds to sound. If a baby has hearing loss, no echo is measured.



Photo courtesy of SonaMed Corp.

The hearing test that your baby has done is a screening procedure, which can place your baby into two groups: Babies who **Pass**, have hearing within normal limits at the time of the screening test; and babies who **Refer** (do not pass), will require additional audiological/medical evaluation. \*

### What if my baby passes the screening?

Passing the hearing screening indicates that your baby's hearing is within normal limits at the time of the screening test.

Some children with a family history of hearing loss, recurrent ear infections or

serious illnesses may develop hearing loss later in infancy or childhood. It is important to be observant and to ask your doctor if you have concerns about your child's hearing, speech or language.

### What if my baby does not pass the screening?

There are many reasons your baby may not pass the hearing screening. Perhaps your baby was moving or crying, or possibly there was middle ear fluid, or debris in the ear canal from the birthing process (the most common reason) that caused your baby to not pass the screening. To ensure that your baby does not have a hearing loss, he/she will need additional testing.

- \* It is important to remember that a "**Refer**" result **does not** mean that your baby definitely has hearing loss. However, it does mean he/she needs to be evaluated further to be sure hearing loss is not overlooked. If the hospital, your baby's doctor or you schedule a follow-up appointment, it is important to attend that appointment so that your baby's hearing can be checked again. It is important that you follow through with any recommendations made by your physician, hospital staff or audiologist.

## Speech, Language and Hearing Skills

Healthy hearing is essential for your baby's development. Information about hearing and typical speech and language milestones is valuable for all parents. Here is a list of some things babies with normal hearing should be able to do.

### Around Two Months of Age:

- ❖ Startles to loud sound
- ❖ Quiets to familiar voices
- ❖ Makes vowel sounds like "aahh"

### Around Four Months of Age:

- ❖ Looks for sounds with eyes
- ❖ Starts cooing and using sounds like "g" or "a"
- ❖ Uses a variety of voice sounds, such as squeals, whimpers, chuckles

### Around Six Months of Age:

- ❖ Turns head toward sound
- ❖ Begins to imitate speech sounds
- ❖ Babbles ("ba-ba", "ma-ma", "ga-ga")

### Around Nine-Ten Months of Age:

- ❖ Imitates speech sounds of others
- ❖ Understands "no-no" or "bye-bye"
- ❖ Turns head toward soft sounds

### Around 12 months of Age:

- ❖ May correctly use "ma-ma" or "da-da"
- ❖ Gives toy when asked for
- ❖ Responds to singing or music
- ❖ Locates sound all around
- ❖ May produce first words

**Healthy hearing is essential for your baby to learn to talk. Without early detection and services, a baby with hearing loss misses many important learning experiences. If you suspect that your baby is not hearing normally, request your baby receive a thorough hearing test from an audiologist. If you have any questions, please contact your baby's physician or the Nebraska Newborn Hearing Screening Program.**

The Nebraska Department of Health and Human Services/Newborn Hearing Screening Program (NNHSP) has developed a directory of resources for families with infants who have hearing loss. To obtain a copy of the NNHSP Resource Directory, call the Nebraska Newborn Hearing Screening Program at (402) 471-6770.

Funding for this brochure was provided in part by the Nebraska Department of Health and Human Services and by project 1 H 61 MC 00065 from the Maternal and Child Health Bureau, Health Resources and Services Administration, Department of Health and Human Services.

## Newborn Hearing Screening Test

Baby's Name: \_\_\_\_\_

Date of Birth: \_\_\_\_\_

Received Newborn Hearing Screen on: \_\_\_\_\_

Results: Right Ear: \_\_\_\_\_

Left Ear: \_\_\_\_\_

Rescreen needed?  Yes  No

Referred to Audiologist / Ear, Nose, and Throat Specialist?  Yes  No

*Ask your nurse or other hospital staff for this information before you leave the hospital.*



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