



breaking the silence

NEWBORN HEARING SCREENING

Silence isn't golden for children with hearing loss. That's why there is a worldwide movement to screen all newborns, now that technology can identify hearing loss in the first few weeks or months of life. Many newborns are screened before they leave the hospital, but not all provinces have newborn hearing testing available in every hospital. In Ontario, screening is well established and shows that approximately four in every 1,000 babies are identified as born deaf or hard of hearing.

"Ideally, all babies should have a hearing screening at birth, before leaving the hospital," says Chantal Lalonde, an audiologist with the Canadian Association of Speech-Language Pathologists and Audiologists (CASLPA). "It's important to get the screening done before the baby is one-month-old."

WHERE TO GET SCREENING

Parents can ask the nursery staff or physician at the hospital where hearing screening can be done, or ask their family physician to help them find an audiologist with pediatric testing experience. Not all audiologists are set up to test babies as it takes specialized procedures and equipment. If there's a children's hospital in the area, try calling that hospital. Hospitals don't usually charge for this test when it's done prior to discharge.

WHAT'S INVOLVED IN THE HEARING TEST?

Hearing screenings are painless and very quick, generally taking three to 10 minutes. There are two types of screening tests used for newborns: automated otoacoustic emissions (OAE) and automated auditory brain stem response (AABR) testing. Automated (pass/fail) versions are used for screening because the initial screening is often done by a nurse or technician in the hospital rather than by an audiologist. OAE testing involves placing a

soft probe in the ear canal. Sound is sent into the ear and a small microphone within the probe measures sounds or emissions coming back out the ear. AABR testing also involves placing a soft probe in the ear to send sound into the ear. Small electrodes, usually three (sticky circles like round band-aids) are applied to the head and base of neck or behind the ears; a computer records the response to the sound.

The baby can sleep through the test, which is preferable since testing is easier while the baby is quiet. If a baby doesn't pass the first hearing screening, it doesn't mean there's a problem. Many newborns still have residual birthing debris in the ears (vernix) which can affect the test. If a newborn didn't pass the first screening, the baby should be re-screened before leaving the hospital or soon afterwards. If the screening is still not a pass, a diagnostic test should be done, preferably before the baby is three months of age.

Only a diagnostic hearing test can confirm hearing loss, including the severity of loss. If a baby is diagnosed with hearing loss, treatment (hearing aids (if appropriate) and early intervention services) should not be delayed.

EARLY INTERVENTION IS KEY

Children whose hearing loss is treated in the first months of life gain critical time and skills. Studies have shown that children who were diagnosed by six-months-old and had early intervention services did significantly better in language and communication skills than children identified later.

"It wasn't that long ago that the average age of children identified with hearing loss was well over two or three-years-old," says Chantal. "By then, much of the critical period of language learning was missed."

According to the Ontario Infant Hearing Program, when babies are identified very early as being deaf or hard of hearing, and given the specialized help they need to develop language, those children can develop language and learn to communicate just as well as hearing children. ●

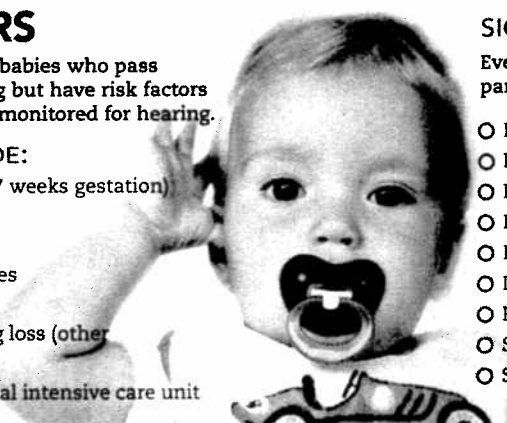
"approximately
four in every 1,000
babies are identified as deaf
or hard of hearing"

RISK FACTORS

Chantal recommends that babies who pass newborn hearing screening but have risk factors for hearing loss should be monitored for hearing.

RISK FACTORS INCLUDE:

- Prematurity (less than 37 weeks gestation)
- Low birth weight
- Low apgar score
- Craniofacial abnormalities such as cleft lip/palate
- Family history of hearing loss (other than due to older age)
- Admission to the neonatal intensive care unit



SIGNS OF HEARING LOSS

Even if a baby passed newborn hearing screening and has no risk factors, parents should look for the following signs of hearing loss in children:

- Doesn't respond to noises by three months
- Doesn't look towards a speaker or sound by three to six months
- Doesn't smile when spoken to by three to six months
- Doesn't vocalize and babble alone or with others by three to six months
- Doesn't point or gesture to objects or events by 18 months
- Doesn't begin to use words by 18 months
- Pulls at ears continuously
- Suffers chronic ear infections
- Speaks loudly or often asks for repetition

If you suspect your child has a hearing problem, consult a professional to arrange testing.

Suggested Websites: caslpa.ca; children.gov.on.ca/CS/en/programs/BestStart/InfantHearing; mtnsinai.on.ca/Ontario Infant Hearing Program, Mount Sinai Hospital