



Your baby has a unilateral hearing loss

WHAT'S THE NEXT STEP?

What is a unilateral hearing loss?

A hearing loss in one ear and normal hearing in the other is called a 'unilateral hearing loss'. The effects of a unilateral hearing loss are not immediately obvious, because the child can still hear well with one ear.

There is currently little research into the benefits of fitting hearing aids to babies with a unilateral hearing loss. This information sheet will help you understand the implications and options associated with unilateral hearing loss.

What effect does a unilateral hearing loss have?

Hearing in just one ear means a child might have difficulty:

- * telling where a sound is coming from
- * hearing in noisy situations
- * understanding what someone says unless they're close by
- * hearing when someone speaks on the 'bad' side.

There is some evidence that a unilateral hearing loss may affect a child's development and education.¹

Auditory deprivation and neural plasticity

Without receiving full hearing stimulation, your baby's auditory system may not develop in the same way as it does for other children.

The brain and nerve pathways in babies have a lot of potential for development. But if there is a hearing loss, the pathways from the ear to the brain do not get as much stimulation. This is called 'auditory deprivation'.

If a hearing aid is fitted later in life, the brain may not 'listen' as well as it could have if it received stimulation earlier. This is why we usually prefer to fit a hearing aid when the child is young.

In the past, children with unilateral loss often weren't found to have a hearing loss until school age. Hearing aid fitting for these children was often unsuccessful, possibly because the delay in fitting a hearing aid made it harder for the brain to learn to make good use of sound heard through the affected ear.

Educational achievement

Research has shown that school-aged children with a unilateral hearing loss are more likely to have educational difficulties, academic delays, and speech and language delays. Approximately one third of the children with a unilateral hearing loss who were studied experienced problems.

What are the benefits of early intervention?

Research has shown that babies with a hearing loss of about 40dB or more in both ears benefit from wearing hearing aids in the first six months.

However, research hasn't yet shown us the best approach to take for babies with a unilateral hearing loss.

Fitting a hearing aid early to children with a significant unilateral loss might stimulate the child's brain to use hearing in the affected ear. This applies especially to children who have a moderate or severe hearing loss in the affected ear.

Children who have only very mild loss in the affected ear are unlikely to need or benefit from aid use. Children with a profound unilateral loss may not have any useable hearing in the affected ear even with a hearing aid.

Children with unilateral loss appear to be at higher risk than other children of developing hearing loss in the unaffected ear. While only a small risk, this may be another reason to consider early use of a hearing aid, as it may be wise to make greatest use of the hearing in the affected ear just in case the hearing in the good ear worsens in the future.

What else can be done?

Helping children with unilateral hearing loss isn't just about fitting hearing aids. Children should be encouraged to interact, while their parents monitor their progress. Parents can help by creating a language rich environment at home – everyday family activities all help the development of language. Provide your child with many opportunities to learn through family conversations and play. Make reading a regular and enjoyable part of your family's day and have fun with music and singing.

It's your decision whether to trial hearing aids for your baby. Feel free to discuss your concerns with your audiologist. For more information, refer to the sheet titled Options for children with a unilateral hearing loss.

References

1. Bess FH, Dodd-Murphy J, Parker RA (1998) Children with minimal sensorineural hearing loss: prevalence, educational performance and functional status. *Ear & Hearing*, 1998 October 19(5): 339 – 54