



Your baby has a mild hearing loss

WHAT'S THE NEXT STEP?

IT'S IMPORTANT TO KNOW YOUR OPTIONS WHEN YOUR BABY IS DIAGNOSED WITH A MILD HEARING LOSS. YOUR AUSTRALIAN HEARING AUDIOLOGIST CAN HELP YOU MAKE AN INFORMED DECISION ABOUT THE BEST COURSE OF ACTION FOR YOU AND YOUR BABY.

What are the benefits of early intervention?

Until recently, a mild hearing loss in a child usually went unnoticed until around school age. But that has changed. Various states in Australia are now putting in place newborn hearing screening programs. These programs are intended to identify children with moderate or greater hearing loss; however they may also identify some babies with much milder degrees of hearing loss.

Research has shown that babies with a hearing loss of about 40dB or more in both ears benefit from wearing hearing aids early in life. For these babies, fitting hearing aids by six months of age, and using them consistently, is important in for their speech and language development. But, research hasn't yet shown us the best approach to take for babies with milder losses.

What are the effects of a mild loss on children?

A mild hearing loss makes voices sound less clear, especially if the speaker is at a distance or if there is background noise present. For some children, this may delay their speech and language development. This can in turn affect a child's behaviour and social development, as well as make it harder to learn at school.

Educational Achievement

Several large studies have investigated the effect of mild hearing loss on educational achievement, with varying results.

A study conducted in the USA in 1998 showed that school-aged children with a mild hearing loss are at higher risk than their peers for experiencing educational difficulties, academic delays, and speech and language delays.¹

However, a more recent Australian study of school aged children found no strong evidence that slight or mild sensorineural hearing loss adversely affected language, reading, behaviour or quality of life.²

These results tell us that while it is possible for some children with a mild hearing loss to experience difficulties, we can not presume that this is true for every child who has a mild hearing loss.

Auditory deprivation and neural plasticity

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

If a hearing aid is fitted later in life, the brain may never 'listen' as well as it could have if it had received stimulation earlier. This is why we usually prefer to fit a hearing aid when the child is young.

What don't we know?

There is not yet enough research to tell us:

- * Whether it's necessary or helpful to routinely fit hearing aids to all babies with mild losses.
- * How to predict which babies with mild loss may go on to have difficulty at school.
- * Whether the effect of auditory deprivation on the brain is as dramatic for mild hearing losses as it is for more severe degrees of hearing loss. It's possible that providing good communication and lots of exposure to meaningful sounds – music, singing and talking – will minimise the effect of auditory deprivation in very mild hearing losses.
- * What the best age is to fit hearing aids to children with mild hearing loss.

What can be done?

Helping children with mild hearing loss isn't just about fitting hearing aids. You can help your child by talking, reading, singing and playing with your child, and by encouraging them to talk and play with you.

There are many books that help parents with ideas for promoting their baby's language development. Your local library or bookshop would be glad to help you find some books to look through.

A useful website is www.babyhearing.org, which is aimed specifically at parents of babies with hearing loss. The section called Language & Learning has many ideas you could use to understand and help your baby's language development.

Hearing aids may be recommended, depending on your child's hearing. However, it's your decision whether to trial hearing aids for your baby. Feel free to discuss your thoughts or concerns with your audiologist.

Looking after your child's hearing

It is not usually possible to predict whether your baby's hearing will change over time. However, you can take action to protect against some causes of hearing loss.

Watch for signs of conductive hearing loss

Most children experience some periods of temporary hearing loss related to cold, flu and ear infections while they are growing up. If a child already has a mild hearing loss in one ear, this temporary dip may have a big impact on their hearing, speech and language development. You can reduce the impact by following up signs of conductive hearing loss early. The information sheet 'Otitis Media' has some useful information about detecting and dealing with conductive hearing loss.

Avoid unnecessary noise exposure

As your child grows ensure that they are not exposed to overly loud noise. Encourage your child to use hearing protection where appropriate, such as when mowing the lawn or working with loud machinery. Try to limit your child's exposure to personal stereos on high volume. Listening to music at high levels for hours every day is a serious risk.

Monitor your child's hearing

If you think your child's responses to sound have changed, follow this up with your audiologist.

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*
2. Wake M, Tobin S, Cone-Wesson B, Dahl HH M, Gillam L, McCormick L, Poulakis Z, Rickards F W, Saunders K, Ukoumunne O C, Williams J (2006), *Slight/mild sensorineural hearing loss in children. Pediatrics 2006;118;1842-1851.*



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