



Options for children with a unilateral hearing loss

CHILDREN WITH A UNILATERAL HEARING LOSS WILL HAVE NORMAL HEARING IN ONE EAR AND SOME DEGREE OF HEARING LOSS IN THE OTHER EAR. THE WORSE-HEARING EAR MAY HAVE ANYTHING FROM A MILD HEARING LOSS TO A TOTAL LOSS OF HEARING. USUALLY THE LOSS IN THE WORSE-HEARING EAR IS A 'SENSORINEURAL LOSS' WHICH MEANS IT CANNOT BE CURED OR TREATED. HOWEVER THERE ARE STILL A NUMBER OF THINGS THAT CAN BE DONE TO HELP YOUR CHILD MINIMISE ANY LIKELY HEARING DIFFICULTIES.

What difficulties will my child face?

Children with unilateral hearing loss usually hear well in quiet situations when they are close to the speaker. However, there are a number of common difficulties they can experience. The amount of difficulty that an individual experiences will be dependent upon the degree of hearing loss in the worse-hearing ear.

1. It may be hard for your child tell the direction of a sound. They may need to look around a few times to find who is speaking in a group of speakers, and they may be slower to recognise who is calling out during games or play activities.
- * If your child has no useful hearing in the worse-hearing ear, they may always need to rely on looking to see where a sound is coming from.
 - * Difficulty recognising the direction of a sound is also an important issue for road safety. Children with unilateral loss must be taught to be especially careful crossing the road as they will not be able to rely on their hearing to warn them of the direction of an approaching vehicle.

2. It will probably be difficult for your child to understand speech in noisy places. This can be a particular problem at school, where classrooms are often noisy. Hearing aids are generally of limited benefit in noisy situations.
3. Sounds are heard more softly when heard with only one ear, so your child will not hear as loudly and easily with one good ear as other people hear with two good ears. This effect is especially noticeable when trying to listen to someone speaking from a distance (e.g. across a room).

4. Your child will not hear sounds coming from their worse-hearing side nearly as well as from their good side, because the head creates a 'sound shadow'. This effect will be considerably worse when there is noise on the good side.

Can technology help?

Hearing Aids

If there is still some hearing in the worse-hearing ear, a hearing aid may be helpful. This will depend on the degree of hearing loss and on how well the hearing impaired ear can use sound amplified by a hearing aid. Your Australian Hearing audiologist can discuss your child's specific situation with you and advise whether or not a hearing aid trial is worth considering.

- * If a hearing aid trial is suggested, the hearing aids will not cost you anything. The Australian Government funds the provision of high-quality, fully-digital hearing aids for all eligible Australian children.
- * If a hearing aid is not an option for the worse-hearing ear, then there are some other technological options available.

Personal FM systems

An FM system is particularly helpful in structured listening situations such as the classroom. However, it is generally impractical in most social situations. Some people also use their FM to help them hear the TV at a volume that is acceptable to other family members who have normal hearing.

A personal FM system is made up of two parts. The person speaking wears a small microphone connected to an FM transmitter. Your child wears an FM receiver connected to an earpiece. The sound from the lapel microphone is transmitted to the child's FM receiver via FM radio wave.

If your child does not use a hearing aid, they can be fitted with a Phonic Ear FM system used with an ear-bud or headphones connected to an FM receiver (about the size of a Blackberry phone). Your child's teacher would

wear a small lapel microphone connected to an FM transmitter (also about the size of the receiver).

Australian Hearing can provide a Phonic Ear FM system where appropriate to the child's needs.

The EduLink system from Phonak includes an ear-level receiver. This system can be purchased by families.

CROS hearing aid

A CROS hearing aid can be helpful for people with hearing in only one ear. A CROS hearing aid comprises two parts:

- * A microphone (housed in a small hearing aid) is worn on the worse-hearing ear.
- * A second hearing aid worn on the good ear picks up sound from the remote microphone and plays it into the good ear. This enables the listener to hear sound coming from the "worse-hearing" side.

Modern technology uses a wireless (WiFi) link between the two hearing aids. Australian Hearing can provide a Wireless CROS system where appropriate.

Soundfield system

A Soundfield system is used in the classroom to ensure the teacher's voice is distributed evenly around the room, overcoming the adverse effects of distance, noise and reverberation. The teacher wears a microphone that transmits their voice to strategically spaced speakers in the classroom.

Soundfield systems are not provided by Australian Hearing. Soundfield systems are purchased by schools or individuals and some funding support options may be available in your area. Your audiologist will be able to provide you with more information. For more information, refer to the fact sheet *Soundfield Amplification*.

Is technology an appropriate answer?

	Hearing aid	CROS system	Personal FM system	Simple Strategies
	On worse-hearing ear	Sound into good ear	Sound into good ear	
Difficulty picking the direction of a sound	Possibly – depending on loss	No benefit	No benefit	Looking for origin of sound
Difficulty understanding speech in noisy places	Possibly – depending on loss	Minimal benefit	Good benefit	Position Watch speaker
Difficulty hearing speech from a distance	Possibly – depending on loss	Small benefit	Good benefit	Position Watch speaker
Difficulty hearing speech from the worse-hearing side	Possibly – depending on loss	Good benefit	Good benefit if microphone used by speaker on worse-hearing side	Position Watch speaker

Simple strategies you can encourage in your child:

It is important for your child to develop strategies that help to avoid or reduce listening difficulties in day-to-day life. You can encourage your child to:

1. Watch the face of the person who is talking;
2. Where possible, sit or stand close to the person talking with the good ear towards the talker; and
3. Politely ask the speaker to repeat themselves.

You may need to help your child work out the best ways to ask for assistance. In her website, Paula Rosenthal, a hearing impaired law school graduate and mother of a hearing impaired daughter, encourages parents to teach their child how to explain the hearing loss in age-appropriate language, and how to ask a teacher or peers for help. Further information can be found at this link:

http://www.hearingexchange.com/articles/5_things.htm

These skills will take time to develop. Encourage your child to use these strategies and praise them whenever they act on their own behalf to hear well.

Meeting other families

If you are interested in talking to others who have a child with a unilateral hearing loss, your audiologist will be able to put you in touch with local families. Aussie Deaf Kids website runs an on-line support group for parents of children with a unilateral hearing loss:

<http://www.aussiedeafkids.com/Phidcoz/unilateral.htm>

A useful website containing hints for communicating with babies who have a unilateral hearing loss comes from the Colorado Home Intervention program:

http://www.csdb.org/chip/par_unilateral_loss.html