

communication, sign language). On the other hand, an auditory-only approach (such as auditory-verbal therapy) may not be successful.

Regardless of communication method, it is important that parents become proficient in the method and use it regularly in the home. Such approaches can be put into place at an early stage, before behavioural thresholds and the child's 'true' hearing ability are known, in order to lay the foundations of communication and language development.

ii. Conventional Hearing Aids

There is increasing evidence that a substantial number of children with ANSD derive benefit from hearing aid fitting if there is a significant behavioural hearing loss (Ching et al., 2013). About 50% of the children in one study gained significant benefit (Rance et al. 1999), although this is variable with some clinics reporting much lower success rates (Berlin et al. 2010) and some much higher. Therefore, a trial of amplification should be undertaken. However, due to doubt as to the benefit in children where behavioural thresholds are near-normal, **the recommendation is to aid a child whose behavioural thresholds are reliably elevated**. A number of other considerations and complications apply – for further details and discussion please see reference (Northern Ed. 2008).

The decision on whether to aid should be based on behavioural results, cortical auditory evoked potentials (CAEP) results where available and observations from families and early interventionists regarding the child's responses to sound and early communication development. If reliable behavioural hearing thresholds are not yet available and there is significant concern from the family and early interventionist, hearing aid fitting can begin based on these concerns and behavioural observation audiometry (unaided and aided) in the test situation.

Where CAEP measurements are utilised, refer to the Australian protocol on how these measurements can be incorporated into the fitting protocol (Punch et al. 2016).

The fitting of hearing aids to children with ANSD should be based on a prescriptive method specifically developed for infants and young children (MCHAS 2003) (e.g. DSL). The behavioural thresholds (not ABR / electrophysiological thresholds) should be used to establish amplification targets. In order to provide the best chance of benefit, it is important that optimal audibility of speech sounds above threshold is achieved. Therefore, provided reliable behavioural thresholds are available, aids should be fitted to target based on these thresholds, rather than adopting a 'conservative' approach.⁷

⁷ If behavioural thresholds fluctuate from test to test, the lowest thresholds obtained should be used, to avoid risk of over-amplification.

