

# Handout on Assistant Listening Devices

Information for the SLP

# **Assistive Listening Device (ALD)/ FM System options**

- Sound Field FM System
- Toteable FM System
- Personal In the Ear device

# Parents get General Assistive Listening Device information on web

Professionals seek EBP articles:

**“Multiple benefits of personal FM system use by children with auditory processing disorder (APD).” Int J Audiol. 2009; 48(6): 371-83**

[Johnston KN<sup>1</sup>](#), [John AB](#), [Kreisman NV](#), [Hall JW 3rd](#), [Crandell CC](#).

<http://www.ncbi.nlm.nih.gov/pubmed/19925345>

# Sound Field FM Systems

- The teacher wears an amplifier/transmitter & the signal is transmitted by speakers placed on each wall or in ceiling panels of the classroom. Research has found that overall classroom performance increases, but most of these systems do not increase the clarity of the primary signal, and depending upon the quality of the system, may amplify all acoustic input, making the listening environment for a child with auditory figure ground difficulties unbearable.

## **Sound Field FM Amplification (speaker's mounted on the walls or within the ceiling panels)**

- Amplifies the speaker's voice by approximately 8 – 10 dB, improving the sound-to-noise ratio of the listening environment
- Provides uniform amplification throughout the classroom regardless of the position of the teacher or students
- The positive impact of a sound field FM system on the academic performance of a student with an auditory figure ground deficit however, depends on:
  - a) the severity of the deficit to extract a primary message from the background noise (which has not been alleviated), and
  - b) The QUALITY of the system to extract/amplify only the speaker's voice over the classroom's ambient noise (e.g. if the system operates by amplifying ALL acoustic signals received, it will amplify not only the speaker's voice, but the classroom noise, making the listening environment louder and more distracting than ever!)

# Toteable FM System

- Teacher (or therapist) wears the amplifier/transmitter, while student has the speaker on their desk.
- Works well for grades 1 – 3, especially if desk formations are grouped because everyone in it's proximity will benefit
- Is not typically successful for grades 4 and above, due to student's concern of "standing out" amongst their peers
- Can be "shared" between classrooms/students

# **BENEFITS of an assistive listening system, from “FM Made Friendly”,**

**Beck, D.L., Sexton, J. (2006, Oticon website)**

- Improved eye contact, attending skills
- Improved speech perception
- Reduction of figure-ground listening difficulties
- Reduction of listener fatigue
- Reduction of teacher stress & vocal straining

**Several newly developed treatment programs for children presenting poor dichotic listening skills demonstrate preliminary evidenced-based treatment options**

- Dichotic listening training (Bellis, 2003)
- Dichotic Listening (Moncrieff, 2008) Int J Audiol. 2008 Feb;47(2):84-97
- Moore (2007) Unpublished at the present time
- Differential Processing Training Program (Kerry Winget, Linguisystems 2007)  
ACOUSTIC TASKS: Dichotic Listening
- Experts suggest using a unilateral “in the ear” ALD the primary message in better ear, then background noise directly to the poorer ear
- **“Effects of speech in noise and dichotic listening intervention programs on central auditory processing disorders.”**

**Putter-Katz H1, Adi-Bensaid L, Feldman I, Hildesheimer M**

[J Basic Clin Physiol Pharmacol.](#) 2008;19(3-4):301-16.

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## **Supporting documentation for a child with an APD re: obtaining an ALD or SLP service provision**

- The New Americans with Disabilities Amendments Act (ADAA) passed by Congress on 9/24/08, which took effect on January 1, 2009:
  - Intention to return the law to what was originally intended by the ADA passed in 1990.
  - ADAA defines “disability” in favor of broad coverage to avoid the narrower interpretations made by the U.S. Supreme Court in cases since 1990 that often focused on the person meeting the criteria of the disability rather than current focus which is the RIGHT to access or accommodations
  - See ASHA Leader, Dec. 16, 2008 pg 4 for greater detail