

# Assistive Listening Devices for Children

Assistive listening devices (ALDs) are instruments designed to help people hear better in certain day-to-day communication situations. They increase the loudness of certain sounds by bringing them directly into the ear or hearing aid. For a child with a hearing loss or other condition, such as a learning disability, an ALD may be used to increase, maintain or improve the listening, learning and communication capabilities of the child.<sup>1</sup>

## ALDs in School

Alerting devices and telecommunications equipment for the home are among the different kinds of assistive technology available. However, of primary concern for many children and their parents are ALDs that provide amplification in the educational setting.

Using ALDs in the classroom helps students overcome background noise, minimize the impact of sound distortions, and reduce room reverberations. An ALD often allows the student to focus on amplified, desired sounds as opposed to undesired distractions.

## FM and Sound Field

A number of assistive listening systems on the market today can be used in the school setting.

FM systems transmit sounds via radio waves from a teacher's microphone to the student's portable receiver. These systems work well both indoors and outdoors, can travel considerable distances, and are helpful for students



PHOTO/COURTESY HARRIS COMMUNICATIONS; WILLIAM SOUND

with hearing loss in one or both ears, as well as for those with learning disabilities, such as attention deficit hyperactivity disorder (ADHD).

Sound field systems, which are designed to assist the entire class, also use an FM transmitter, along with portable speakers positioned around the room.

An induction loop system can be used for even larger group areas or purchased for individual use. This system uses a loop of wire circling the perimeter of the room. The speaker has a special amplifier and microphone, and students wearing telecoil-equipped hearing aids or receivers can pick up the sounds within the electromagnetic field.

## From Infrared to Hard Wire

An infrared ALD system carries the sound via invisible infrared light waves, similar to a television remote control. The sound source is connected to a transmitter that usually is mounted in a permanent location, and the listener can hear the signal by using a personal receiver. Individual systems require a clear line of sight from the transmitter to the receiver.<sup>2</sup> As a result, sunlight can cause interference. They work best for television watching as well as church and theater settings. Group infrared systems are very effective for classroom use.

All of these ALDs can be used by students with or without hearing aids.

Hard-wire or corded ALDs are well suited for one-on-one conversations or car rides. These simple tools use a microphone, wire and receiver. They may be helpful for individuals considering amplification for the first time.

Parents interested in knowing if assistive listening devices will benefit their child should consult an audiologist. Many school districts employ audiologists who specialize in issues related to the educational setting.

## References

1. Department of Public Instruction, Wisconsin Assistive Technology Initiative. (2000). Assistive Technology Fact Sheet No. 1: Assistive Technology for Children with Hearing Impairments. Accessed via [www.wati.org/atforhearing.htm](http://www.wati.org/atforhearing.htm).
2. Atlantic Coast Ear Specialists. (2001). Assistive Listening Devices. Accessed via [www.earaces.com/ald.htm](http://www.earaces.com/ald.htm).

## For More Information

American Speech-Language-Hearing Association  
[www.asha.org](http://www.asha.org)

Beginnings for Parents of Children Who Are Deaf or Hard of Hearing Inc.  
[www.beginningssvcs.com](http://www.beginningssvcs.com)

Hard of Hearing Advocates  
[www.hohadvocates.org](http://www.hohadvocates.org)

Self Help for Hard of Hearing People  
[www.shhh.org](http://www.shhh.org)

Hearing, Speech and Deafness Center  
[www.hsdcenter.org](http://www.hsdcenter.org)

Compiled by Kerri Waldowski