Assistive Listening Devices (ALDs)

Assistive listening devices (ALDs), also known as hearing assistance technologies (HATs), are extra tools or “accessories” that help a hearing-impaired person hear better. ALDs may be used in addition to a hearing aid (HA) or cochlear implant (CI).

ALDs can:

- increase sound volume (loudness or amplification) when there are only a few people talking or many at the same time.
- make the speaker’s voice clearer
  - in noisy places or in rooms that echo.
  - if the speaker is far away.
- help the hearing-impaired person to be less tired from working so hard to hear the conversation.

Parts of an ALD system

**Microphone:** The person speaking talks into the microphone. The microphone picks up the sound signal and sends it to a receiving (“receiver”) device attached to a HA or CI.

- A speaker can wear a microphone around the neck, clipped to clothing or attached to a headband. If on a headband, it is called a Boom Mic.
- Some microphones can be placed on a table. A group can use it this way and pass it from person to person. Microphones work best when placed:
  - 6 to 8 inches from the speaker’s mouth
  - around the neck or clipped to a shirt collar
  - away from things that can affect the sound, such as jewelry, scarves or clothing

**Receiver(s):** A receiver “receives” or gets the sound from the microphone.
Each HA or CI will have its own receiver. Usually, the receiver connects right to the HA or CI. However, there are other options available.

**Types of ALDs**

ALDs can be used between two people or a in a group of people.

- A two-person system is called a “personal” system. The speaker wears a microphone and the hearing-impaired person wears the receiver(s) (Picture 1).

- A system used by a group or in a classroom is called a “soundfield” system. The speaker wears a microphone that sends the sound signal to a loudspeaker. Everyone in the room is able to hear the person talking.

ALDs can send or “transmit” sounds differently. The three most common types are:

- Frequency Modulated (FM) System: This system works like a radio sending sound waves at different frequencies.

- Digital Modulation (DM) System: This system changes sound into digital data like a computer would do.

- Remote Microphone (RM) is a blue tooth system. Some RMs send the sound directly to the HA or CI. Others may need the hearing-impaired person to wear a device around their neck or clipped to their clothes.

Check with your child’s audiologist to decide which device works best with his or her HA or CI.

If you have any other questions about Assistive Listening Devices, contact the Audiology Department at Nationwide Children’s Hospital at (614) 722-3951.