

Introductory Guide to Hearing Loss

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Presented by



Arkansas Division of
Workforce Services
Arkansas Rehabilitation Services

Note: This booklet does not address the needs of individuals who are deaf-blind. For resources relating to deaf-blind individuals, please visit these additional links:

Additional Resources

Arkansas Department of Education

<https://dese.ade.arkansas.gov/offices/special-education>

Helen Keller National Center

<https://www.helenkeller.org/hknc>

iCanConnect

<http://www.icanconnect.org>

National Center on Deaf-Blindness (NCDB)

<https://nationaldb.org/>

National Federation for the Blind

<https://nfb.org/resources/deafblind-resources>

Table of Contents

Introduction	1
Part 1: Knowing Your Rights	2
Part 2: Advocating for Your Rights.....	6
Part 3: Understanding Hearing Loss.....	9
Part 4: Increasing Your Understanding of Speech.....	12
Part 5: Other Adaptations for Hearing Loss.....	16
Part 6: Tips for Successful Communication	20
Glossary	21
References	23

Introduction

This booklet was written as a resource for individuals with hearing loss, their families, and service providers in Arkansas. It provides a brief introduction to some important topics including:

- Your personal rights related to hearing loss
- Resources available to help enforce your rights
- A description of hearing loss levels
- How to read your audiology report
- Things to consider when choosing hearing technology such as hearing aids and implantable devices (i.e. cochlear implants and bone-anchored hearing aids)
- Common challenges of hearing aids and implantable devices
- Possible solutions to those challenges
- Tips for successful communication with others

Also included is a glossary of terms that you may come across. All sources have been listed at the end.

Part 1: Knowing Your Rights

This section will cover:

- Your personal rights related to hearing services, education, employment, and community access

Your Rights Related to Hearing Services

Birth to Age 21

Most children are able to receive hearing services “as medically necessary” through a referral from a primary care physician. These services may include:

- audiological assessments
- hearing aid evaluations
- hearing aid services (this can include hearing aids, hearing aid accessories, and related healthcare services)

These services can be paid for by ARKids, the Arkansas Medicaid program. Or, if the family income is higher than the Medicaid income cut-off, then the child can likely get services paid for by TEFRA. TEFRA only considers the resources owned by the child and does not consider the resources owned by the parents.

Arkansas Children’s Hospital can help families apply for TEFRA coverage. You can contact them at 501-364-1100 or visit Arkansas Children’s Hospital at 1 Children's Way, Little Rock, AR 72202. The Admissions Desk can help direct you to the right office.

For help with ARKids, please call 1-888-474-8275 or apply online at <https://humanservices.arkansas.gov/divisions-shared-services/medical-services/healthcare-programs/arkids/>.

(Sources: A & B)

Age 22+

Medicaid does *not* cover hearing services for adults in the state of Arkansas. *(Source B)*

Original Medicare (Part A & B) does *not* cover hearing aids.

If you have private insurance or if you have a Medicare Advantage plan, please check directly with your insurance provider to see what services are covered. *(Source C)*

There are resources available to help adults pay for hearing aids and associated technology. Please contact Arkansas Rehabilitation Services to learn more: 1-800-330-0632 or go to <http://www.arcareeducation.org/about/arkansas-rehabilitation-services>.

Your Rights Related to Education

Birth to Age 21

IDEA stands for Individuals with Disabilities Education Act. This law helps create equal educational opportunities for children with disabilities (from birth to age 21). Please note, however, that IDEA only applies to public schools. It does *not* apply to private schools. (Source D)

Birth to 36 Months

Children may receive Early Intervention (EI) services. These services include: audiology services, assistive technology, speech therapy, and more. Parents can request that these services be provided in their home. For more information, please call Arkansas First Connections at 1-800-643-8258 or 501-682-1332 (TDD). Or visit their website: <https://dhs.arkansas.gov/dds/firstconnectionsweb/#fc-home>. (Source E)

37 Months to 21 years

Children enrolled in public schools help create their Individualized Education Program (IEP). This plan is developed by the IEP team with family and student participation. The IEP helps students gain equal access to all educational material. By age 14, a “transition plan” is created to help the student plan for life after graduating from high school. (Source F)

Postsecondary – Any individual enrolled in higher education regardless of age

The rights of students with disabilities seeking postsecondary education in *both* public and private institutions are protected under two legislative acts: *Rehabilitation Act of 1973* and the *Americans with Disabilities Act (ADA)*. These laws apply to students seeking technical training in vocational programs, students enrolled in two-year community colleges, and students enrolled in traditional four-year colleges and universities. Students seeking advanced degrees (e.g., Master’s, Doctorate) are also protected by these acts.

Medical documentation is needed by most schools as supporting evidence for a student’s request for accommodations. Your audiologist will be able to get you this documentation if needed.

For more information on these laws, please read the following:

Rehabilitation Act of 1973

This act prohibits discrimination based on disability in any institution that receives federal funding. It also requires that accommodations be made for individuals with disabilities.

(Source G & H)

Americans with Disabilities Act (ADA)

ADA requires public *and* private universities, community colleges, and other institutions of higher education to provide students, regardless of disability, equal opportunities for participation in all school activities (academic and extracurricular). However, under ADA, students *must* tell the school's disability support office that they need accommodations (self-disclose their disability). Otherwise, the school has no legal obligation to make adjustments to accommodate the student's needs.

Under ADA, accommodations are individualized for each student. They can include architectural adjustments (e.g., widening doorways in dorm), schedule changes, captioning services, note takers, assistive technology, adjusted testing conditions, and other reasonable accommodations. For a more in-depth discussion of ADA related to students with hearing loss, please visit <https://nad.org/issues/education/k-12/section-504-and-ada-obligations>. *(Source H & I)*

Your Rights Related to Employment

The rights of all workers are protected under two laws: *Rehabilitation Act of 1973* and the *Americans with Disabilities Act (ADA)*. These laws prevent employers from discriminating against individuals with disabilities. This means, for example, that employers are not allowed to ask about your disability during the interview process. Potential employers can only discuss your hearing loss *if* you tell them about it during the interview process (self-disclose). You may decide to not tell your employer about your hearing loss. That is your right. But if you feel that your job performance is suffering because of your hearing loss, please disclose your medical condition to your supervisor. By telling your supervisor, you will be protected by ADA which requires that employers (with 15 or more employees) provide reasonable accommodations in the workplace. These accommodations should help you be more productive, successful, and healthy at work. For more information on your rights as a worker, please visit the Ask JAN legislation page at <https://askjan.org/links/other.htm>.

You can call Ask JAN consultants with any workplace or ADA questions at 1-800-526-7234 or 1-877-781-9403 (TTY). A live chat option is also available at <https://askjan.org/info-by-role.cfm#for-individuals>.

(Source G, J, & K)

Your Rights Related to Community Access & Engagement

Under the *Americans with Disabilities Act* (ADA), the following places have a legal obligation to provide you with equal access to their services:

- state government agencies
- local government agencies
- non-profit organizations that serve the public
- and businesses that serve the public

Only two groups are *exempt* from this ADA requirement:

- private clubs (a group where members are voted in)
- and religious organizations

As a person with hearing loss, all other organizations that provide public services have a legal obligation to successfully communicate with you in order to provide you with equal, accurate access to their services and provide you with any information you need. (*Source L*) Their accommodations should incorporate your preferred method of communication (for example, speech versus American Sign Language) and be offered in an integrated setting.

Also, you have a legal right to be provided with telecommunication access that addresses your hearing loss. This includes access to relay services when necessary (e.g., captioning and American Sign Language relay) and appropriate technology to increase your ability to communicate with others over the phone. Part 5 includes a more in-depth discussion of these relay services and technologies.

Lastly, public places have a legal responsibility to provide you with equal goods, services, or benefits. Examples of this include (but are certainly not limited to):

- Hotels providing alarms with vibrating bed shakers
- Restaurants providing written menus and turning the captioning on for their TVs
- Public parks posting signs with important information
- Libraries using flashing strobes on their fire alarms
- Movie theatres providing captioned showings of popular films
- Doctor offices offering you an assistive listening device for communication

(*Source K*)

Please review (sources J, K, and L) for more information about your rights regarding community access and engagement.

Part 2: Advocating For Your Rights

This section will cover:

- Self advocacy
- What to do if you feel your rights are being violated
- Resources available to you

As discussed in the previous section, *Part 1: Knowing Your Rights*, individuals with disabilities enjoy a broad range of protections. However, there may be times when individuals with disabilities are faced with obstacles in their education, training, employment, and/or independent living arrangements.

Self-Advocacy

Consider the following situations: You sometimes have trouble understanding a friend. Your new job requires the use of a telephone, and people on the other line are difficult to understand at times. You participate in several large meetings each week and have trouble following the conversations from around the table. What do you do in each of these situations?

This is where self-advocacy, or personal advocacy, is important. One of the best ways to think about self-advocacy is to know that there are several components: (1) self-awareness, (2) knowledge of rights, (3) communication, and, where appropriate, (4) leadership (see **Figure 3.1**).

1. **Self-Awareness:** These are things you know about yourself, your hearing loss, and your responsibilities and what you believe you need in order to be successful. This entire booklet was designed to help you with self-awareness.
2. **Knowledge of Rights:** These were covered in *Part 1: Knowing Your Rights*. It is also important to know how to take personal steps for change to occur. When your personal attempts are not successful, it may be necessary for you to seek assistance from legal professionals (see the next section, *If You Need Help Enforcing Your Rights*).
3. **Communication:** How you communicate with others about your needs and your rights is an important life skill. People who advocate well for themselves are assertive yet respectful. They are often great with their own body language and reading the body language of others. They come prepared with their own self-

awareness and knowledge of rights. They are able to listen and process both sides and they are able to contribute possible solutions while reaching a place of reasonable compromise. The use of assistive technology may be an important part of this discussion.

4. **Leadership:** Once the above is achieved on a personal level, you may be in a unique position to help mentor/advocate for others and teach self-advocacy skills within your school, workplace, or residence. This form of leadership benefits many others beyond yourself.

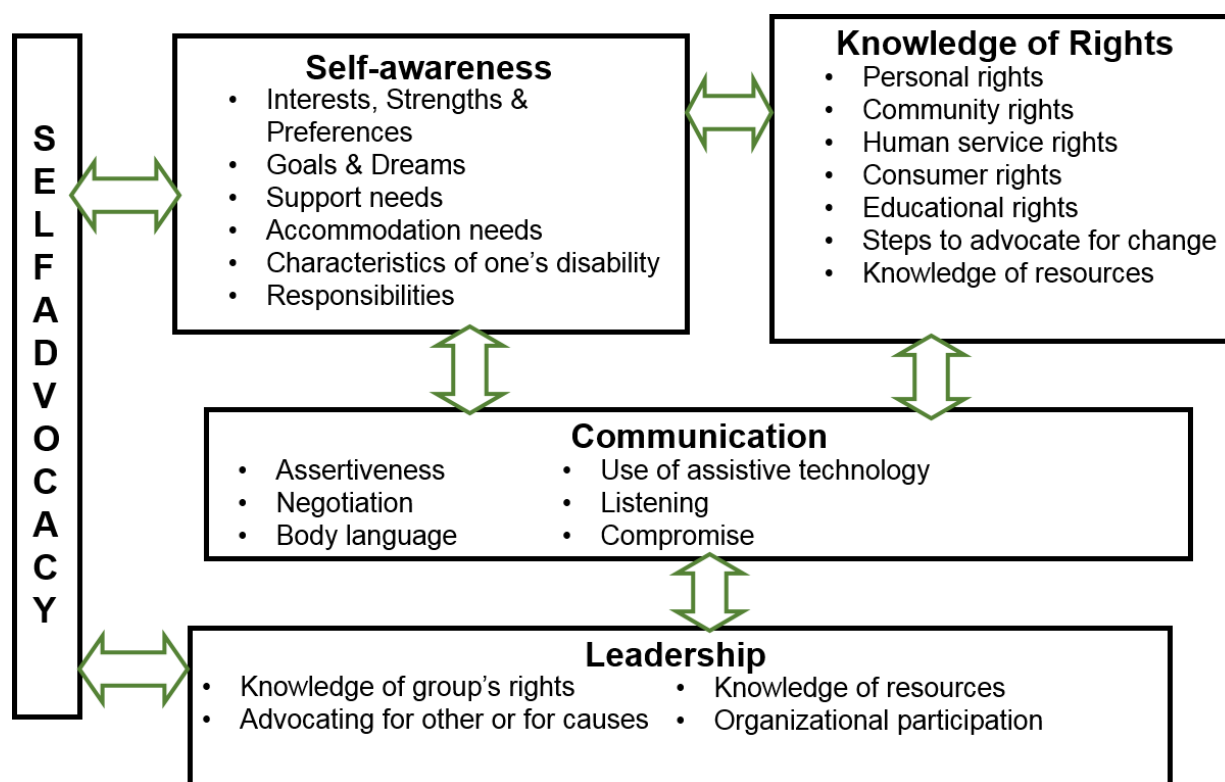


Figure 3.1. Self-Advocacy Model. From Independent Living Research Utilization (ILRU)

If You Need Help Enforcing Your Rights

If you are an applicant or a client for services funded by Arkansas and you continue to face obstacles, you are encouraged to contact the Client Assistance Program (CAP) with Disability Rights Arkansas (DRA). The mission of DRA is to “vigorously advocate for and enforce the legal rights of people with disabilities in Arkansas.” The CAP, therefore,

provides services to protect the rights of people receiving or seeking services funded under the federal Rehabilitation Act. In some cases, the services help people at the individual level. In other cases, legal representation can be provided when a larger number of people with disabilities may benefit. CAP can also help when vocational rehabilitation services have denied an application or have not been successful with what you believe you need. To learn more about CAP services and how they can assist you with enforcing your rights, please visit: <http://disabilityrightsar.org/about/cap-client-assistance-program/>

Additional Resources

Self-Advocacy

<https://teachingselfadvocacy.wordpress.com/description-of-self-advocacy/>

<http://www.ncwd-youth.info/>

Enforcing Your Rights in Arkansas

<http://disabilityrightsar.org/about/cap-client-assistance-program/>

Equal Opportunity Employment Commission and Americans with Disabilities Act

<https://www.eeoc.gov/laws/types/disability.cfm>

Part 3: Understanding Hearing Loss

This section includes:

- Tips on reading an audiology report
- Description of hearing loss levels

Reading an Audiology Report

Audiograms are a graphical representation of one's ability to hear. From left to right, sounds are shown in frequencies (or pitches) from low to high and shown in Hertz (Hz). From top to bottom, sounds become increasingly louder (soft to loud) in decibels (dB). To complete an audiogram, patients undergo a hearing test to find the softest tone that a person can hear at different pitches. Normal hearing is near the top of the audiogram (better than 25 dB), while hearing levels below 25 dB represent various degrees of hearing loss. Let's look at an example of an audiogram that a person with hearing loss might have.

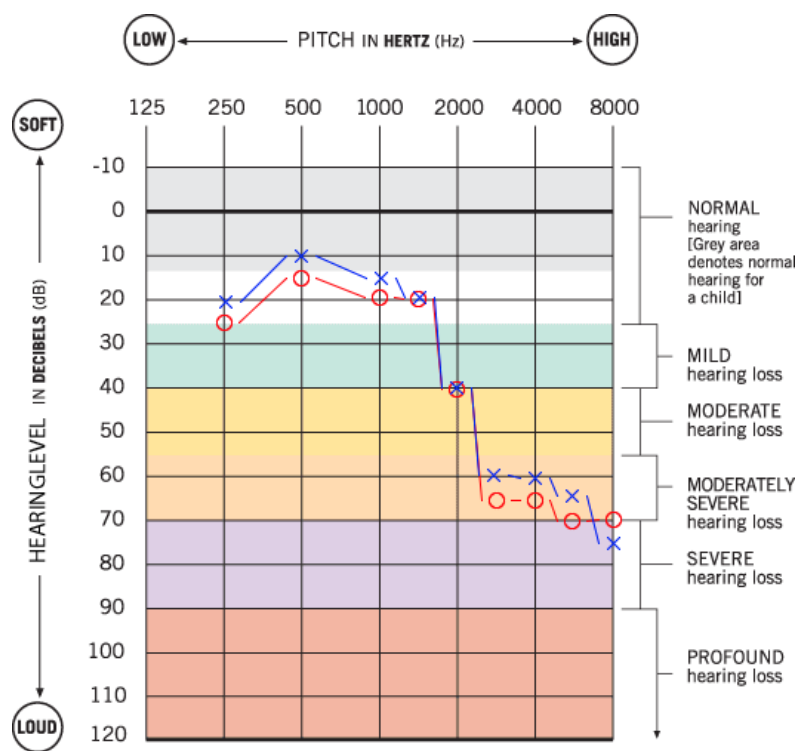


Figure generated from <https://www.hearingaidknow.com/audiogram-creator>

On this audiogram, the Os represent the right ear and the Xs represent the left ear. Both ears are similar to one another on this audiogram. Notice how the lower pitches are in the normal hearing range through 1500 Hz, but they gradually become worse at the

moderately-severe and severe levels around 8000 Hz. To get a general sense of your hearing abilities, you may take an average of the pitches 500, 1000, and 2000 Hz. For example, the right ear as a pure tone average (PTA) of 25 dB (borderline normal hearing), while the left ear is at 20 dB (normal hearing). However, it is clear that this patient still has some hearing loss in the higher pitches, which may make it hard to hear certain sounds. Let's take a look at another kind of audiogram with both speech sounds and typical sounds in the environment.

As you look at the audiogram below, you will notice a purple shaded area that represents where speech sounds are likely to occur in terms of how loud they are and their strongest pitch. You will also notice a variety of typical sounds also placed based on how loud they are and their strongest pitch. The red line is a useful guide for normal hearing (e.g., -10 to 20 dB). If you plot one's audiogram on this kind of audiogram, we can make some assumptions about what kinds of sounds are missed, and what kinds of sounds may still be heard. For the hearing loss described in the audiogram earlier, we can see that speech sounds, such as *k*, *f*, *s*, and *th* will not be heard without some assistance.

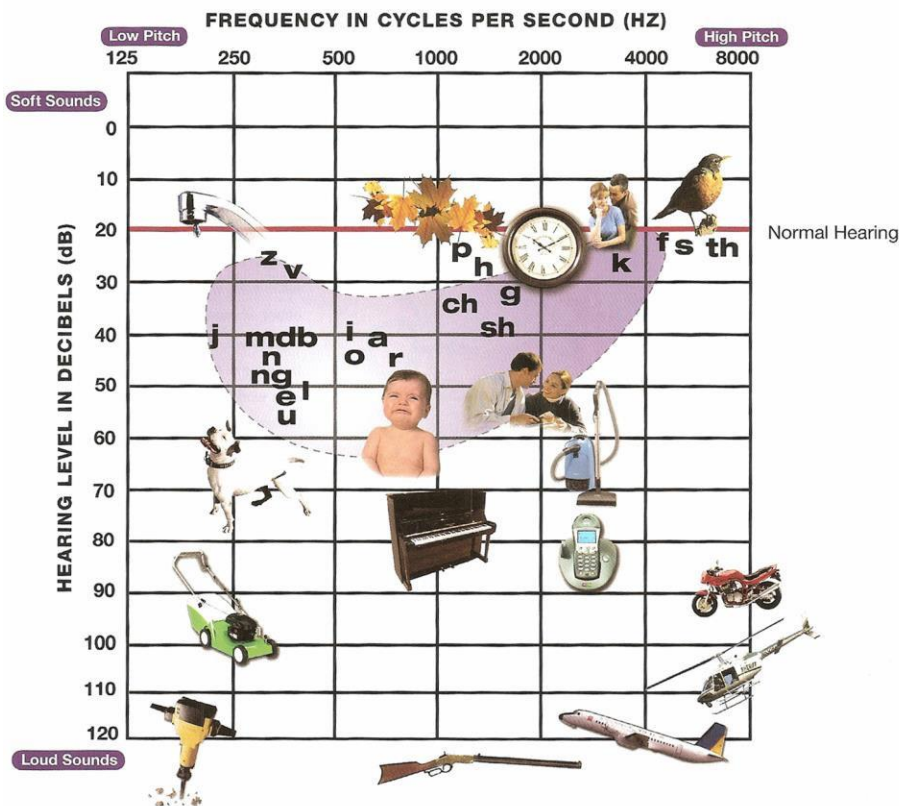


Figure from <http://apps4android.org/audiogram/>

Description of Hearing Loss Levels

Hearing losses can be categorized in the following ways: Mild, Moderate, Moderate-Severe, Severe, and Profound.

Here is a description of what each level means.

Note: These descriptions are made under the assumption that no amplification is being used.

Mild, 20-40 dB: Some difficulty with hearing soft speech and conversations, especially in noisy environments. But a person should be able to understand speech in quiet environments.

Moderate, 41-55 dB: Difficulties with understanding speech especially with background noise present. This person would likely have their TV, headphones, or radio turned up higher than normal.

Moderate-Severe, 56-70 dB: Ability to understand speech is highly affected. Conversation with this person would have to be at a volume nearly close to yelling.

Severe, 71-90 dB: Regular speech is now inaudible. Yelling or even shouting would prove difficult to understand. This person would be very dependent on lip reading or amplification for speech comprehension.

Profound, 91+ dB: Amplified speech may not even be enough for speech comprehension. Even shouting would be nearly unheard. This is where a consideration for implantable devices becomes relevant.

Part 4: Increasing Your Understanding of Speech

This section will cover:

- Common challenges of hearing aids and implantable devices
- Possible solutions to address these challenges

Common challenges

The “sweet spot” for hearing aids and implantable devices is up to three feet from the device with one sound source (e.g., only one person talking) and no background noise. Sound quality is best under those circumstances. The following is a discussion of the main factors that impact sound quality.

Distance: The farther away one moves from the sound source, the less clear and loud the sound will be. The listener will have to really focus to understand what is being said. This can be quite tiring and frustrating.

Background Noise: Hearing aids and implantable devices will pick up all environmental sounds in an area. If you are trying to hear someone speak with a loud TV or a lot of people talking nearby, then that extra noise will also be amplified. This additional noise makes it difficult for the listener to understand what is being said.

Reverberation: A room with lots of reverberation (e.g., high ceilings, no rugs) can make sounds echo which disrupts the sound quality of what is being heard by a hearing aid or implantable device user.

Possible Solutions

GOAL: Take the sound directly to the brain. This eliminates all three challenges of distance, background noise, and reverberation.

You can do this in two ways: 1. Use manual telecoils and 2. Use assistive listening devices. Both options are described below.

Use Manual Telecoils

1. What is a manual telecoil?

A telecoil is a small metal rod with wires wrapped around it. It is lightweight, thin, and about half an inch long. It is placed on the inside of the hearing aid or implantable device. Despite its small size, the telecoil can have a major impact on your ability to understand sounds around you. Having the option to use a manual telecoil is certainly beneficial.

To say that a telecoil is “manual” simply means that you have the ability to turn it off and on. On a hearing aid or implantable device, you turn on the telecoil by hitting a button on the aid or selecting a telecoil mode with a remote.

When discussing telecoils, you may also hear the term T-coil used. Telecoil and T-coil are two interchangeable terms that mean the same thing. However, this document will refer to them as telecoils.

TO DO: Ask your audiologist to get you set up with manual telecoils. It is better to request this before purchasing the hearing aid or implantable device because this feature often can not be added after being ordered by the audiologist.

2. How can manual telecoils help?

Manual telecoils are the simplest way to take sound directly to your hearing aid or implantable device. With a manual telecoil turned on, you can walk into a conference room, church, or other meeting place and have the speaker’s voice automatically start streaming through your hearing aids or implantable device. Manual telecoils are the *only* way to accomplish this automatic streaming in public places without purchasing and using extra devices.

3. Why is automatic streaming important?

Streaming to your hearing aid or implantable device is important to help increase your ability to understand what is being said at church, conferences, and other public places. Having the sound play directly from your hearing aids or implantable devices eliminates the majority of background noise and interference from reverberation. Also, you would be able to sit anywhere in the meeting space and not have to sit as close as possible to the sound source.

3. Are manual telecoils expensive to get or difficult to use?

No, having manual telecoils in your hearing aids or implantable devices should add no additional cost. It should be simple to turn your telecoils off and on.

If you request manual telecoils, then your audiologist has the professional responsibility to:

1. properly program your telecoil to work for your hearing loss and chosen hearing technology and 2. teach you how to turn the telecoil off and on.

4. How do I get a manual telecoil?

Your audiologist can help you select an appropriate hearing technology for your individual hearing loss. Only two types of hearing aids can *not* include telecoils: 1. In the Ear (ITE) and 2. In the Canal (ITC). These two types of hearing aids are so small that manual telecoils will

not fit inside them. However, manual telecoils can provide you with much more listening opportunities, so please at least discuss manual telecoils with your audiologist.

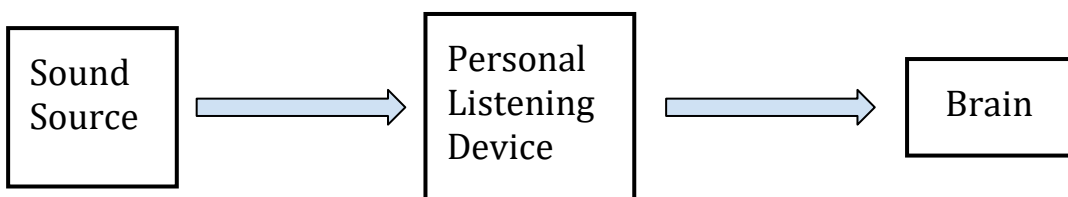
Use Assistive Listening Devices

This is the second way to take sound directly to the brain (eliminating all three challenges listed above).

Assistive listening devices transmit sound directly from the source (person, TV, etc.) to your hearing aid or implantable device. They are extra devices that are purchased to be used with hearing aids or implantable devices.

TO DO: Discuss assistive listening devices with your audiologist.

This diagram provides a visual illustration for how they work.



Examples:

TV
People
Phone Call

Examples:

Streamers
Bluetooth Devices
FM Listening Systems

Via:

HAC Headset
Hearing Aid
Cochlear Implant

*HAC Headset = Hearing Aid Compatible Headset

Benefits of assistive listening devices include:

- Increased ability to understand:
 - Conversations
 - in restaurants
 - while riding or driving in the car
 - during work meetings
 - Important information
 - in classrooms
 - in meetings
 - during social events

- Entertainment
 - Music
 - TV
 - Movies
- Phone calls (cell phones, work phones, and home phones)

Final Thoughts for Increasing Understanding

Hearing aids and implantable devices can be helpful in improving your ability to communicate. But environmental factors can prevent you from hearing speech and other important sounds clearly. To improve your ability to communicate, talk with your audiologist about:

1. manual telecoils
2. assistive listening devices to meet your personal listening needs

Assistive listening devices are often provided for students as part of their IEP in public schools or as a reasonable accommodation under ADA while enrolled in higher education.

State agencies have funding available to help qualified adults pay for these assistive listening devices and hearing aids. For more information, please contact Arkansas Rehabilitation Services at 1-800-330-0632.

Part 5: Other Adaptations for Hearing Loss

This section will cover:

- More ideas for students
- Additional ideas for workers
- Suggestions and products that may help improve quality of life for individuals with hearing loss
- Organizations to contact for additional support

Note: These lists are *not* meant to be all inclusive. They are simply designed to start discussions with your healthcare team, teachers, employers, family members, etc.

For Students

Resources: 1. IEP Team
 2. Disability Resource Office of vocational school, college, or university

- Note takers
- Captioning services
- Assistive listening devices
- Amplified Stethoscopes
- Alarm and alerting systems with strobe lighting, vibration, and/or sound
- Preferential seating
- Interpreters (American Sign Language, Cued Speech, etc.)

For Workers

Resources: 1. Arkansas Rehabilitation Services: 1-800-330-0632
 2. Ask JAN: 1-800-526-7234 or 1-877-781-9403 (TTY)

- In-line phone amplifiers
- Amplified phones
- Hearing aid compatible headsets
- Captioning services
- Assistive listening devices
- Amplified Stethoscopes
- Alarm and alerting systems with strobe lighting, vibration, and/or sound
- Interpreters (American Sign Language, Cued Speech, etc.)
- Videophones (communicate using American Sign Language)

For All Ages - Other Ideas to Improve Quality of Life

- Resources:
1. Increasing Capabilities Access Network (ICAN)
 - AT Lending Library & AT Reuse Program - Free for Arkansans
 - 1-800-828-2799
 - <https://equipment.ar-ican.org/>

 2. Telecommunications Access Program (TAP)
 - Provides communication devices - Free or reduced cost for Arkansans
 - 1-800-981-4463
 - <https://arktap.org>

 3. University of Arkansas at Little Rock Speech and Hearing Clinic
 - Provides resources, education, assessments, and clinical treatment
 - 501-569-3155
 - <http://ualr.edu/cehp/speech-language-hearing-clinic/>

	Amplification	Captioning	ASL	Agency
Cell Phones	Jitterbug Serene SA-40 Assistive Listening Devices (ALDs)	Sprint Cell Phone - Data Only Plan Innocaption Clear Captions Hamilton CapTel CaptionCall Mobile	Sorenson ntouch P3 Mobile Z5 Mobile Convo	TAP
Home & Work Phones	Fanstel ClearSounds Many more options...	CapTel CaptionCall Teletypewriter (TTY)	Sorenson Videophone Purple Videophone	TAP Arkansas Rehabilitation Services

Movies & TV	Manual telecoil with seat pad loop or room loop Infrared TV systems Assistive Listening Devices (ALDs)	Captioning options on TV and streaming services like HBO and Netflix Sony Access Glasses CaptiView cupholder	YouTube videos of classifier stories	ICAN UALR Speech & Hearing Clinic
Music	Assistive Listening Devices (ALDs)	Shazam App (for Android and iOS)	Youtube videos of lyrics in ASL	ICAN UALR Speech & Hearing Clinic
Gathering Places	Manual Telecoil with room loop Assistive Listening Devices (ALDs)	Ava App for iPhone, iPad, and Ipod touch	Try to sit in a circle to see everyone signing	ICAN UALR Speech & Hearing Clinic
Driving in Car	Manual Telecoil to Car Loop Assistive Listening Devices (ALDs)	Not Applicable	Mirror to more easily see signing and/or read lips	ICAN UALR Speech & Hearing Clinic
Alarms/Alerts	Most alarm or alert systems for individuals with hearing loss use vibration and strobe lighting. Some products include: Silent Call Ditto Wavio		TAP ICAN Arkansas Rehabilitation Services	

For Additional Support and Resources

1. Services for the Deaf and Hard of Hearing

- Assists with interpreting services, advocating for rights, and resources
- 501-246-8259
- <https://arcareereducation.org/services/arkansas-rehabilitation-services/field-services/hearing-services>

2. Arkansas Hands & Voices

- Non-profit organization provides support, education, and resources
- 501-569-8907
- <http://www.arhandsandvoices.org/index.html>

Part 6: Tips for Successful Communication (Sources M & N)

This section covers tips on how to communicate better with others. These tips are directed toward:

- Individuals with hearing loss
- Family members, healthcare professionals, employers, teachers, and others who regularly communicate with individuals with hearing loss

Communication Tips for Individuals with Hearing Loss

If you have hearing loss and are communicating with others:

- Ask for clarification if you don't understand.
- Try to have conversations in areas with little or no background noise.
- Ask for people to write down important information.
- Repeat what you think you heard to confirm you understood correctly.
- Rely on visual cues whenever possible (hand gestures, facial expressions, pictures).
- Consider using an assistive listening device.
- Tell others what you need to be successful.

Tips for Communicating with Individuals with Hearing Loss

When communicating with someone who has hearing loss:

- Position yourself so your face is well-lit. Avoid being backlit (such as standing in front of an open window). This helps individuals see your face more clearly.
- Minimize background noise.
- Get the individual's attention before speaking.
- Speak in a normal tone of voice at your normal speed.
- Avoid chewing gum or covering your mouth. This helps individuals who lipread do so more accurately.
- Use gestures and facial expressions to help convey meaning.
- Try to stay within three feet of the person you are talking to.
- Be patient and understanding.
- Use their preferred method of communication. If an individual prefers American Sign Language (ASL), arrange for an interpreter.
- Offer to write down important information.
- Provide visuals whenever possible.
- Have meetings at round tables, so the individual can see the faces of all group members.

Glossary of Terms

- **ACH** - Arkansas Children's Hospital
- **ADA** - Americans with Disabilities Act
- **ALD** - Assistive Listening Device
- **ARKids** - Arkansas Medicaid Program for Minors
- **ARS** - Arkansas Rehabilitation Services
- **ASL** - American Sign Language
- **AT** - Assistive Technology
- **Bluetooth** - a way that two devices (e.g., phone and streamer) send sound wirelessly
- **Captioning** - words appear on the screen to describe speech and other sounds
- **CART** - Communications Access Real-Time Translation - captioning for meetings
- **Congenital** - present at birth
- **dB** - Decibels - measures how loud a sound is
- **EHDI "eddie"** - early hearing detection and intervention; hearing test for infants
- **EI** - Early Intervention services (can include therapies and medical services)
- **FCC** - Federal Communications Commission - help ensure equal access to sounds
- **FM** - Frequency Modulation - another way to send sound wirelessly
- **HAC** - Hearing Aid Compatible - get phones and headsets that are HAC
- **HAAA** - Hearing Loss Association of America
- **Hz** - Hertz - measures frequency; the higher the Hz, the higher pitch a sound will be
- **ICAN** - Increasing Access Capabilities Network - free lending library of AT
- **IDEA** - Individuals with Disabilities Education Act
- **IEP** - Individualized Education Program
- **Infrared** - light waves send sound wirelessly from point A to point B
- **Loop** - a wire that can be in a seat pad, worn around the neck, or around a room; sends sound wirelessly into the area that the wire surrounds
- **Presbycusis** - age related hearing loss
- **PTA** - Pure Tone Average - the average PTA determines the level of hearing loss
- **Relay Services** - an operator either types captions or signs ASL for phone calls
- **SRT** - Speech Recognition Threshold - another measure to support the PTA
- **TAP** - Telecommunications Access Program
- **TDD** - Telecommunication Device for the Deaf - includes TTY and relay services
- **TEFRA** - Tax Equity and Fiscal Responsibility Act - state support for child services
- **Telecoil** - small spool of wire - takes sound and sends it straight to the brain
- **Tinnitus** - ringing in the ears
- **TRS** - Telecommunications Relay Service
- **TTY** - Teletypewriter - used to type messages from one person to another
- **UALR** - University of Arkansas at Little Rock

- **VCO** - Voice Carry Over - for calls, read captions but respond with your voice
- **Videophone** - a phone that ASL users can use to make calls; can use relay
- **VP** - short for videophone
- **VRS** - Video Relay Services - an operator uses ASL to interpret for a phone call

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