

Division of Vocational  
Rehabilitation;  
Florida Department of  
Education

2014

# Guidelines on Hearing Loss, the Purchase of Hearing Aids, and Cochlear Implants

This is a Companion Guide to the  
*Guide on Serving Individuals  
Who are Deaf, Late-Deafened,  
Hard of Hearing, or Deaf-Blind*

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## **PART 1: GUIDE ON HEARING LOSS AND THE PURCHASE OF HEARING AIDS**

### **For Further Guidance**

Any questions regarding hearing loss or hearing aid purchases can be directed to the Deaf and Hard of Hearing Services within the Bureau of Field Services at the Division of Vocational Rehabilitation (VR) State Office.

Note on Terminology: The word “deaf” with a lower case “d” is typically used to describe all people who are deaf. The word “Deaf” with an upper case “D” is typically used to describe those who are culturally deaf and primarily communicate through the use of American Sign Language (ASL).

## **VR PROGRAM RESOURCES SECTION CASE MANAGEMENT PRACTICES ON HEARING AID PURCHASE**

### **A. HEARING AID DECISION TREE**

#### **REFERRAL STATUS:**

Assistive listening devices are listed as a check box on the VR Referral/Application.

#### **APPLICANT STATUS:**

Determine whether or not the individual must have a hearing aid(s) in order to complete an evaluation. This determination includes when a hearing aid(s) is not functioning or operating properly. If so, the counselor should already have the documentation to either move the case to Plan Development status (10) or to Extended Evaluation status (06) before the purchase of hearing aids. Efforts should be made to acquire assistive listening devices (ALD), or an interpreter for the evaluation, as needed.

#### **PLAN DEVELOPMENT AND ESTABLISHING VOCATIONAL GOAL:**

The choice of a hearing aid should be consistent with the hearing requirements of training and the job goal based on the recommendation of a licensed audiologist that is consistent with the hearing requirements of training and the job goal.

Use the charts in this guide to determine which aids to consider. In keeping with individual informed choice, the suggested hearing aid should be acceptable to the individual. If individuals prefer a more complicated or higher tech hearing aid, they can choose the opportunity to pay the difference in cost. In all cases, the choice of hearing aids must be determined by the requirements of the training and job goal.

When considering programmable aids for persons with severe or profound hearing loss, the counselor must recognize that these aids are most suitable for those who either had a progressive hearing loss or became deaf at a later age. These individuals previously had residual hearing and understood speech, unlike those who are born deaf or became deaf at a young age.

Thought must also be given to the possible use of other Assisted Listening Devices (ALD), interpreters, note-takers and other resources to complement the use of hearing aids. ALDs are an excellent companion to hearing aids when the work duties include meetings, orientations, telephone use, and conversations in noisy surroundings. Hearing aids must be equipped with a T-coil, but the smaller aids (CIC, ITC) are not large enough to accommodate the T-coil.

### **School-to-Work Transition Services**

The VR does not generally purchase hearing aids for those still attending high school unless the eligible student is in the final term of school and requires such aid(s) for post-high school training and/or employment. However, VR may sponsor the cost of vocationally relevant hearing aids for a VR eligible transition student who needs the aid(s) to benefit from paid and non-paid community work experiences. VR purchase of the aid(s) should only occur when no other comparable benefit is available from the school or other resources, including Children's Medical Services (CMS) and Medicaid. (Revised 11/27/06).

### **Important Note**

Regardless of status, comparable services and benefits should always be considered first.

## **B. SERVICE FEE CODES**

### **EAR NOSE THROAT OFFICE VISIT**

**992410** Office Consult TJ 15 Min: Basic Visit (To check any problems that the person may be having with his/her ears). Also use other codes for more intensive visits.

**992420:** Office Consult TJ 30 Min. or 992430: Office Consult TJ 40 Min. Obtain medical clearance for hearing aid fittings

Check with the doctor for ENT special codes.

## **BASIC AUDIOLOGY: TESTS, EXAMS, and EVALUATIONS**

**925500** Both Tympanometry and Acoustic Reflex Testing

**925530** Pure Tone Audiometry Threshold (air and bone)

**925560** Speech Audiometry Threshold with Speech Recognition

### **OR**

**925570** Comprehensive Audiometry Threshold Evaluation and Speech Recognition (both 925530 and 925560)

**925670** Tympanometry (impedance testing)

**925680** Acoustic Reflex Testing; Threshold

**925900** Hearing Aid Examination and Selection: Monaural (One)

**925910** Hearing Aid Examination and Selection: Binaural (Two)

**925911** Special Hearing Aid Examination and Selection: Binaural 7-1/2 Hour

**925060** Evaluation of Speech, Language, Voice, Communication and/or Auditory Processing

## **HEARING AIDS, EARMOLDS and BATTERIES**

**C99801** Hearing Aid Repair

**C99810** Analog Hearing Aid

**C99820** Programmable Hearing Aid

**C99830** Digital Hearing Aid

**999010** Professional Fee for Monaural (One) Hearing Aid\* (\$500)

**999020** Professional Fee for Binaural (Two) Hearing Aids\* (\$950)

**990700** Supplies and Materials (this code includes ear molds\*\*, batteries and Cochlear Implant Cords)

\* This fee covers programming, fitting, dispensing, up to two follow-up visits after the initial 30-day trial period, earmold, and a one-year warranty.

\*\* When purchasing  **earmold(s)** from a physician, use Code **990700** (“Supplies and Materials”). When purchasing  **earmold(s)** from an audiologist or hearing aid dealer, use Code **B10004** (“Medical Supplies”).  **Important Note: do not use code CV5275 (ear impression) for earmold(s); use either 990700 or B10004. However, neither code 990700 nor B10004 should be used when purchasing new hearing aid(s); instead, use professional fee codes that include the cost of earmold(s).**

VR does not have separate codes for hearing aid components (i.e. telecoil) that may come with an additional cost. On the purchase/authorization form, list such costs along with the cost of hearing aid and total the cost. Add a statement on the form explaining the additional costs. Remember to include this information in the case notes.

### **TECHNICAL AIDS and DEVICES**

**G10250** Other Hearing Devices (tactile alarm clocks, assistive listening devices, regular FM system, **electronic/amplified stethoscope that works with hearing aids**, etc.)

**C99801** Repair of Other Hearing Devices (e.g. FM System)

### **HEARING AID FM SYSTEM (AUDIO SHOE)**

**999080** Professional Fee for installation of FM System Hearing Aid (Audio Shoe), included with the fitting of new hearing aid(s). Either monaural or binaural hearing aid(s). Include adjustments, counseling, and 3-4 follow-up visits. The fee is \$200.

**999090** Professional Fee for installation of FM System Hearing Aid (Audio Shoe) not included with the fitting of new hearing aid(s). Either monaural or binaural hearing aid(s). Include adjustments, counseling, and 3-4 follow-up visits. The fee is \$300.

**C99890** Hearing Aid FM System (Audio Shoe) – see Hearing Aid MSUP for Actual Cost.

**G10250** Other Hearing Devices (ex: for FM system itself- Micro link, Smart Link, MLx Transmitter)

Note: Also add Hearing Aid Professional Fee (i.e. \$500 Monaural) if a new hearing aid is being purchased/fitted with the FM System Hearing Aid because each requires separate fittings and adjustments to ensure that both work well together.

## **HEARING AID CHECK and FITTINGS**

- 925920** Hearing Aid Check: Monaural
- 925930** Hearing Aid Check: Binaural
- 925940** Electroacoustic Evaluation Hearing Aid: Monaural
- 925950** Electroacoustic Evaluation Hearing Aid: Binaural
- 925994** Hearing Aid Evaluation, Ear Mold, and Counseling

## **IPE SERVICES (DROP-DOWN LIST)**

### **(Also RIMS Service Types)**

#### **Physical Restoration –**

Basic visit (**992410**)

All audiology testing (**925060**, **925500**, **925530**, **925560**, **925570**, and **925680**)

Supplies/materials (**990700** for physician vendor) or (**B1004** for non-physician vendor)

**Hearing Aids** – Hearing exam codes, hearing aids, technical aids, and hearing aid checks (see pages 6 and 7).

**Technical Aids/Devices** - Other hearing devices (**G10250**)

## **C. USING FUNCTIONAL LIMITATIONS TO DETERMINE APPROPRIATE HEARING AID PURCHASE**

While the functional limitations of a particular hearing loss may be identified as early as in the Preliminary Assessment, the decision to purchase hearing aids is more appropriately addressed at IPE planning. The exception is when the hearing aid is essential for participation in assessments (i.e. vocational or psychological assessment). Every effort should be made to get a loaner FM listening system. A sign language interpreter can also be used if the individual uses sign language.

The particular aid being purchased should be based on the individual's ability to hear and understand speech. A particular occupation and daily function may also affect the type of a hearing aid selected. For instance, some individuals who are congenitally and profoundly deaf may hear and understand speech so they may require sophisticated hearing aids with added features. However, in general, many do not hear and understand speech. This distinction will determine what is necessary for effective communication during IPE services leading to an employment outcome. In addition, the

individual's abilities define what his/her vocational impediments are and whether or not the purchase of hearing aid(s) is vital to achieving an employment outcome.

Depending on the individual's abilities, there are two broad categories used for identifying the type of hearing aids that should be obtained.

**1. Daily Interaction involving sound reception and recognition only. This category generally applies to those who are deaf.**

Individuals who are deaf handle daily living and work functions by utilizing technology that provides visual and sound awareness to alarms, moving vehicles, warnings, and machinery. These activities generally can be accommodated by a basic hearing aid and provide amplification in order to secure the safety and/or attention of the individual on the job. Example work settings include warehouses where forklifts are used, landscaping, and carpentry work. The ability to hear sounds such as machinery or alarms is a basic requirement for these types of jobs. The provision of top of the line programmable aids would not apply to these individuals who utilize hearing aids for sound awareness only. In fact, many occupations may lend themselves to utilizing a Rehabilitation Engineer for the provisions of flashing lights and other assistive technologies.

**2. Daily interaction requiring speech recognition and understanding.** This category generally applies to those who are late-deafened or hard of hearing since they require a more finely tuned decision process. The following points bring to light some examples of communication needs that will require VR to purchase higher functioning hearing aid(s):

- a. Daily interaction requiring face-to-face communication that involves visual feedback and speech reception.
- b. Daily interaction requiring ongoing use of the phone in which a phone amplifier may be essential in addition to a hearing aid.
- c. Daily interaction involving recognition of high-pitched voices (e.g., children's voices) that is part of a required daily job function (e.g., teacher).
- d. Daily interaction requiring extensive communication with the hearing public or hearing co-workers.
- e. Daily interaction requiring the ability of the individual to hear the fine-tuning of machinery or appliances in order to determine if they are working correctly.

- f. Daily interaction involving loud background noises that interfere with the ability to hear and understand speech.

### **Purchasing Hearing Aids and Providing Accommodations**

When purchasing a hearing aid, a distinction is made to determine which type of hearing aid is the most appropriate: behind-the-ear (BTE), on-the-ear (OTE), in-the-ear (ITE), in-the-canal (ITC), or completely-in-the-canal (CIC). In general, BTE is the preferred type to purchase for ease of care and operation as well as longevity of batteries. The individual's physiological aspects (i.e. hearing and speech capabilities), daily living, and job functions (i.e. work environment) determine the best kind of aid to be purchased (e.g., regular, waterproof). Work-site conditions also need to be addressed when selecting the appropriate hearing aid. The following questions should be taken into consideration: Is the work-site hot and humid? Is the work-site noisy? Is there equipment (e.g., headphone, gas mask, special vision protection device) that may interfere with the use of a particular style of aid?

If an individual who is profoundly deaf with fair to good speech (may be able to speak face-to-face with an individual without assistance) chooses a job that requires extensive communications (e.g., schoolteacher, counselor), the purchase of assistive listening devices and/or interpreter services should be considered.

For those who are late-deafened or hard of hearing, there may be jobs where the ability to hear and understand speech is crucial (e.g., telephone operator, telephone customer service representative, bank teller, receptionist, retail sales, attorney, florist) and may require a higher-level hearing aid that will enable these individuals to perform various functions/roles in different environments more effectively.

Other jobs (e.g., computer operator, x-ray technician, housekeeper, carpenter, driver, building trades, printer operator, mechanic, stockroom worker, and forklift operator) have different performance and safety requirements that may not require extensive use of communication. Thus, it is very helpful to do a thorough job analysis to determine what the individual may need to perform effectively on the job.

### **Making the Decision**

When the individual and counselor arrive at an appropriate choice of employment outcome, the first decision is whether or not the purchased hearing aid will enable the individual to complete not only the services listed on the Individual Plan for Employment (IPE), but also satisfy the job requirements. Involve the individual in the discussion about how the recommended hearing aid would be more effective, practical, and

beneficial for daily interaction and employment. Assistive listening devices (e.g., visual alert, amplified phone, FM system, TTY) should be considered as a supplement to the hearing aid. Other approaches may include the use of a professional sign-language or oral interpreter, CART (computer assisted real-time captioning) service, or even simpler, no-cost alternatives like sitting near the speaker in meetings, providing copies of prepared texts, or using media. If noise interferes with the job performance, other means may be considered such as relocating or covering noisy equipment (e.g., printers, copiers) or moving the individual to a quieter location.

An unusually shaped audiogram and the need for extra special features may necessitate a certain kind of hearing aid and should be discussed thoroughly with the audiologist and/or the hearing aid provider.

Counselors should also work with the audiologist by taking the vocational goal into serious consideration and avoid recommending a hearing aid based on degree or type of hearing loss alone.

### **How Many Hearing Aids to Buy?**

VR may consider the purchase of two hearing aids for the individual if the audiologist highly recommends them. Two hearing aids are considered for those who rely on these aids for daily communications during employment. However, if the individual is receiving two aids for the first time as opposed to having just one in the past, the counselor and the audiologist should discuss the justification and purpose of having two aids before the purchase is made.

### **D. BEST PRACTICES FOR COUNSELORS SERVING DEAF AND HARD OF HEARING INDIVIDUALS (February 2010)**

1. An **Ophthalmology exam must be obtained** in all cases of deafness, retinitis pigmentosa, usher syndrome, and may be considered for other cases.
2. For diagnostic hearing evaluation, VR only accepts audiograms and recommendations with a signature from **a state licensed or nationally certified audiologist with either a designation of “Certificate of Clinical Competence in Audiology (CCC-A)” or “Board Certification in Audiology.”** VR also accepts evaluations done by staff under the supervision of a qualified audiologist. The report must include audiologist’s signature and credential designation. VR cannot accept audiograms from licensed hearing aid specialists.

3. **Audiological evaluations** must be recent (no more than 6 months old) for those to be fitted with hearing aids. Because of the Order of Selection, it may be recommended that older reports (1-2 years) be accepted rather than sending individuals for new audiological testing.
4. Individuals who are suspected of having ear diseases should be referred to ENT (ear, nose throat) specialists for an evaluation and **medical clearance** for hearing aid fitting. Either the individual will notify the counselor of a possible medical condition in the ear or the audiologist will recommend a referral after a hearing evaluation.
5. Audiologists and counselors/consultants should justify their recommendation of high-level hearing aids over mid-level or lower-level hearing aids. **Remember, it is important for the counselor to work closely with the audiologist and consider fully the type of training the individual is involved in or the job the individual will do and avoid focusing on the degree and type of hearing loss alone.**
6. **Purchase** hearing aids from reputable audiologists or licensed hearing aid specialists.
7. On the **Individual Plan for Employment (IPE)**, it is a good idea to discuss the need for the individual to start saving for future hearing aids. Some possible wording under the individual responsibility section could be "individual agrees to budget money each month to purchase hearing aids and also to pay for future maintenance costs such as batteries, earmolds, extended warranties, and repairs."
8. **Trial periods** for hearing aids: According to state law, individuals have a **30 day trial period** to try out new hearing aids. If individuals are not satisfied for whatever reason, the hearing aids should be returned before the 30<sup>th</sup> day. The vendor, under state law, can keep a certain amount as a re-stocking fee.
9. **Telecoil** – It is **very important** to remember that many users benefit from this T-switch, which is important for telephone usage and also for using assistive listening devices (ALD's, including FM and special sound systems) in auditoriums, and meeting rooms. Most canal or completely-in-the-canal hearing aids do not have this capability.
10. **The smaller the hearing aid, the more expensive.** The most common choice in hearing aids is either the behind-the-ear hearing aid or in-the-ear canal type. In-the-canal and completely-in-the-canal hearing aid prices tend to be more expensive than BTE's, OTE's and ITE's, and should only be purchased for extenuating reasons. In

addition, they do not last as long as behind-the-ear and in-the-ear hearing aids. A high rate of repairs occur due to wax build-up, ear drainage, and oil production.

11. Audiologists or hearing aid specialists can be asked to examine hearing aids **for maintenance/repairs**. If more extensive repair is needed, the hearing aids should be sent to the factory. There is usually a standard cost for repairs regardless of how minor or major the repair work is (\$175-\$300).
12. **Warranty** - Most new hearing aids come with a one-year warranty, although more are coming out with two-year warranties. The warranty can be extended at additional cost.
13. If **two hearing aids** are recommended and the individual relies on the hearing aid for speech discrimination and sound localization, then buy two. Do not base purchase decision on cost alone.
14. If in doubt about **individual cooperation**, purchase one hearing aid. If the individual follows through with the IPE (gets a job), then purchase the second hearing aid.
15. **Cochlear Implants/Bone Anchored Hearing Aids (BAHA)** require prior approval and their purchase is based on strict criteria.
16. **Returning Individuals** - If an individual returns to Vocational Rehabilitation (VR) with any hearing aid request, the individual must meet all of the VR eligibility criteria.
17. **What if the returning individual already received a hearing aid through VR?** If an individual returns to VR with a request for a new hearing aid after one was already purchased for him/her less than five years ago, the Counselor will need to evaluate the situation carefully. There is no VR policy or guideline regarding time limits about when an individual can return to VR for hearing aid replacement or repair. Hearing aids may be considered broken, lost, or damaged beyond repair, but the hearing aids should first be sent to an audiologist or hearing aid specialist to be examined. If the hearing aid is beyond repair and the hearing aid is critical to the training or the employment of the eligible individual, VR may consider purchasing a new one. Many hearing aids last more than five years. Counselors need to emphasize responsibility for care of the aids to individuals, and encourage them to save money for future replacements. This is especially true with the implementation of the Financial Participation Determination and Order of Selection.

18. Counselors who are not familiar with working with individuals with hearing loss should consult with a designated Rehabilitation Counselor for the Deaf, a Supervisor, or a Consultant in their area for any questions they may have.

## **E. OTHER BEST PRACTICES**

1. **Self-Referrals versus Direct Referrals** from Audiologists or Hearing Aid Specialists - While those experiencing hearing loss are encouraged to apply for VR services directly, referrals from audiologists or hearing aid specialists are also accepted. Such referrals will not guarantee the individual's eligibility.
2. **Eligibility Determinations**
  - a. Hearing loss alone does not determine the individual's eligibility for VR services, but serves as a starting point (loss of 30 dB or greater as an example). There must be strong evidence of impediments (e.g. communications, noise, use of phone as an essential function of the job, job jeopardy) that may affect the following:
    - i. The individual's ability to participate in training and or job.
    - ii. The individual's demonstrated desire to work or keep a job.
  - b. The primary question regarding eligibility determination remains, "**Does the individual require VR services?**" The individual and the counselor must conclude the following:
    - i. VR services are essential to his/her success (examples: personal adjustment counseling, employer intervention or education, exploration of assistive technology), and
    - ii. VR services will impact the individual's success in employment.

If an individual is employed, it is recommended that the individual obtain a letter from the employer indicating that he/she cannot perform his/her job functions without hearing aid(s). However, a letter is not mandatory.
3. **Audiograms** can only be accepted from nationally licensed/certified audiologists.
4. Any individual suspected of having **diseases of the ear(s) should be referred** to an otologist or otolaryngologist (ENT). Referrals will occur when the individual notifies the counselor of a possible medical condition in the ear or when an audiologist recommends one after a hearing evaluation.

5. Any individual who is deaf must go for an **Ophthalmological Evaluation**. Referrals for those who are hard of hearing are optional.
6. When **purchasing hearing aids**:
  - a. The Counselor should follow the audiologist's recommendation for a hearing aid that best fits the needs of the individual. If the Counselor has questions about the recommendation, he/she should contact the audiologist.
  - b. The hearing aid can be purchased from either the audiologist who performed the hearing evaluation and provided a recommendation or a hearing aid specialist. The Counselor can confer with a neutral VR Audiological Consultant about the recommendations.
  - c. The Counselor will discuss the recommended hearing aid with the individual and both will agree to the purchase. If requested and determined appropriate (reference 6 b, above), the Counselor will honor the individual's preference to be served by the same audiologist or the hearing aid specialist who made the initial referral to VR.
  - d. Individual Informed Choice - In addition to an individual's choice of an approved audiologist or hearing aid specialist (as a vendor) for services, the individual will be provided a hearing aid that will enable the individual to perform successfully on the job or while in training. If the individual chooses a hearing aid with extra features, he/she will pay the difference in cost.
  - e. The Counselor will notify the audiologist or the hearing aid specialist and authorize services using appropriate RIMS codes to process the authorization.
  - f. After the hearing aid has been fitted and the customer is satisfied, the Counselor will receive both a signed authorization and an itemized invoice from the audiologist or the hearing aid specialist listing the price of a hearing aid from [Manufacturer's Single Unit Price \(MSUP\)](#) plus a VR-established professional fee. The Counselor must verify the hearing aid price match with MSUP posted on VRiNet (VR Policy 12.05).
7. Individuals need to be reminded of their responsibility for repairs, maintenance, and future replacement of their hearing aids.
8. Counselors are encouraged to develop and maintain good communications and relationships with audiologists and hearing aid specialists as well as other vendors.

[Special thanks to Buyer's Haven for giving us permission to copy the following article similarly titled as "The Hearing Test" as addressed to the individual (February 24, 2003).]

## THE HEARING TEST

A complete hearing test consists of four standard components. They are the [Pure Tone Air Conduction](#) test, the [Bone Conduction](#) test, the [Speech Reception Threshold](#) test, and the [Speech Discrimination](#) test. It is important that each of these tests are administered to the individual to ensure that the results are accurate and, if needed, that the individual is fitted with the appropriate hearing aid.

Below are further explanations of these tests:

1. **Pure Tone Air Test:** This is when a tester places headphones (some testers now use earplugs for higher quality) over your ears and plays different tones. You are told to indicate when you can hear each tone in one of many ways that vary with each testing machine. This test determines how well you hear at different frequencies. The normal human ear can hear tones from 20 to 20,000 cycles per second.
2. **Bone Conduction Test:** During the Bone Conduction test, an instrument is placed against the mastoid bone, which is just behind the ear. The tester then plays the same tones as you heard during the Pure Tone Air testing. You usually indicate when you hear the tones in the same fashion as the "Pure Tone Test". The Bone Conduction test will help determine whether your hearing loss is due to outer ear or middle ear problems. This can also be caused by inner ear nerve damage. In some cases, the person giving you the test may stop here and refer you to a physician. In some states, this is mandatory under certain conditions. Other times, a tester may stop here because you do not appear to have a loss. This is because the next two tests are mainly for fine-tuning a hearing aid to your needs.
3. **Speech Reception Threshold Test:** The Speech Reception Threshold is the softest point at which you are able to repeat words correctly fifty percent of the time. The Speech Reception Threshold test indicates the level of sound you need before you can hear and understand words. This test is very important in the programming of your hearing aid(s).
4. **Speech Discrimination Test:** In the conventional Speech Discrimination test, the hearing specialist presents 25 to 50 standardized words to you, which you are asked to repeat. Word discrimination testing serves three purposes:
  - a. Test words given at normal speech levels indicate how the individual is functioning without hearing aids.

- b. Your best speech discrimination is found by testing at different intensity levels to locate the level that produces the best score.
- c. Speech testing gives you an opportunity to hear what amplification can do for you. (What it may sound like with a hearing aid.)

## **USEFUL INFORMATION AVAILABLE ON THE INTERNET**

Several internet websites provide useful information on how to better understand the audiogram as well as other topics relating to hearing loss. The following site is worth reviewing: <http://www.earinfo.com/howread1.html>

## **THE AUDIOGRAM**

### **A. UNDERSTANDING THE AUDIOGRAM**

The Audiogram is a printed report of an individual's hearing tests. On the graph itself, there are two sets of numbers and two sets of symbols (X and O).

The numbers across the top of the Audiogram are measured in Hertz (Hz) from 125Hz to 8000Hz. These numbers measure the pitches an individual can hear. The low numbers, (125Hz to 500Hz) measure the ability to hear very low pitches; the high numbers (4000Hz to 8000Hz) represent the ability to hear very high pitches. The mid-range numbers (500Hz to 4000Hz) are considered to be speech range.

The numbers down the side of the Audiogram are Decibels (dB) and represent loudness. They range from minus ten (-10dB) to 120 dB. The lower numbers represent very quiet sounds while the larger numbers represent very loud sounds.

The audiologist measures how loud a certain pitch must be for an individual to hear it and marks that point on the graph with an X for the left ear and an O for the right ear. The audiologist then continues to mark the graph at all frequency (Hz) levels. In an individual with normal hearing the (X)'s and (O)'s falls within the pitch range of 250 Hz to 2000Hz at 30 dB or lower.

**Pitch** (frequency - Hz) - from 125 Hz to 8000 Hz

**Loudness** (intensity - measured by decibels dB) - from -10dB to 120 dB

**Symbols** X is for left ear O is for right ear

1. **Air conduction testing:** This test determines the amount of hearing loss for particular pure tone frequencies (Hz)

2. **Bone conduction testing:** The point at which sound is heard when the conductive mechanism of the ear (nerves, ear drum, etc.) is bypassed. A bone vibrator or oscillator is placed on the mastoid bone sending vibrations. This test helps to determine if there is a hearing loss in the outer or middle ear. **Unmasked, Masked:** "Masked" is a process in which noise is introduced during the air or bone conduction testing. Noise is introduced in the non-test ear so that if the test tone should cross to the tested ear, it will not be perceived.

**Symbols:** Unmasked: O right ear      X left ear  
Masked:      < right ear      > left ear

3. **Speech Tests:**

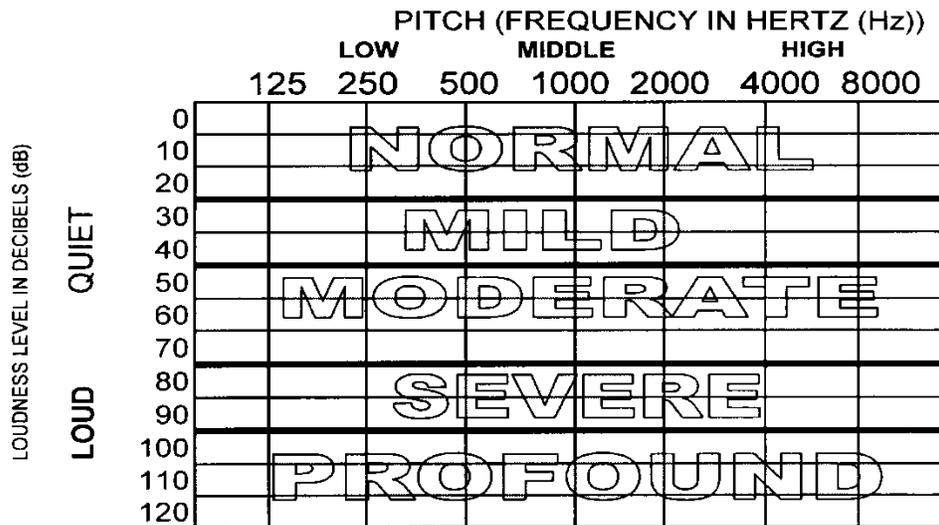
**PTA (Pure Tone Average)** - 500, 1000, and 2000Hz average dB at which a tone is heard.

**SRT (Speech Reception Threshold)** - The lowest dB level at which a person can correctly identify 50% of test words spoken by the audiologist.

**Speech Discrimination** - The number of words correctly repeated from a test list presentation

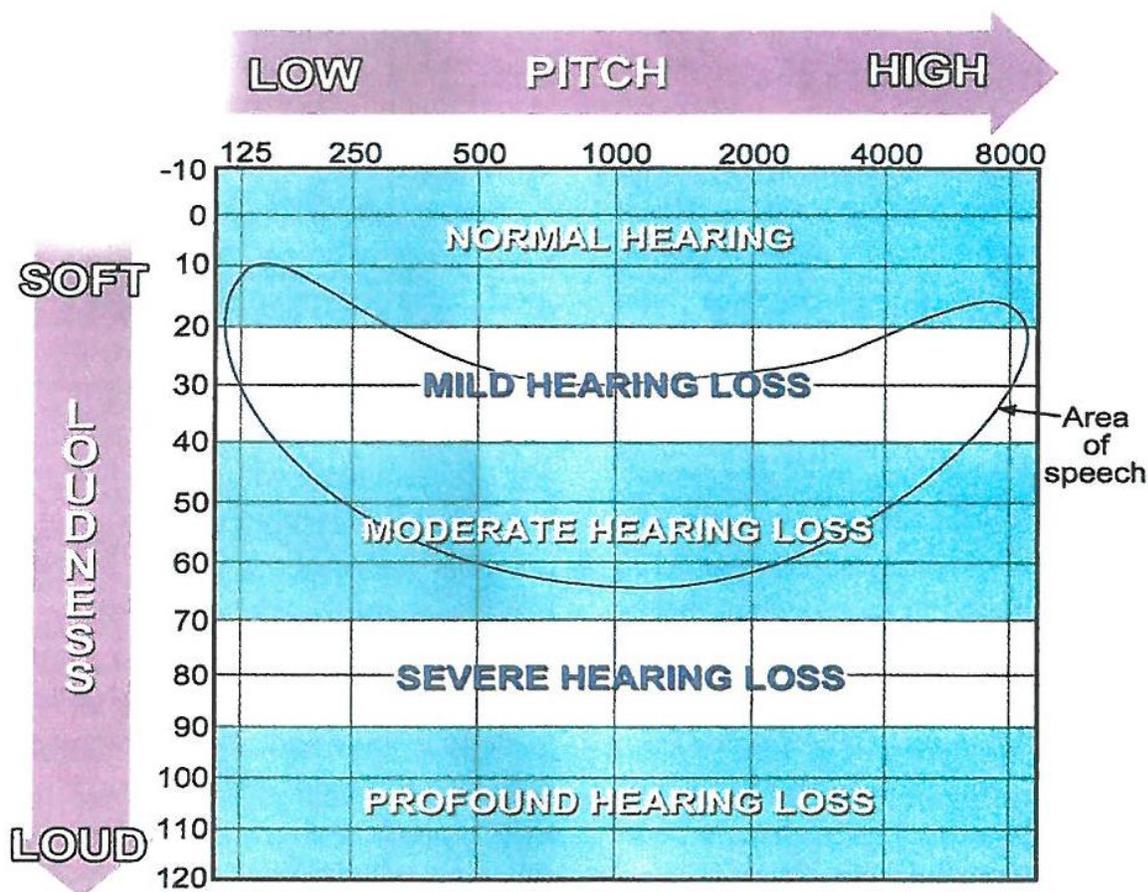
**B. AUDIOGRAM SAMPLES**

**AUDIOGRAM**



**Ability to Understand Speech Based on Degree of Hearing Loss**

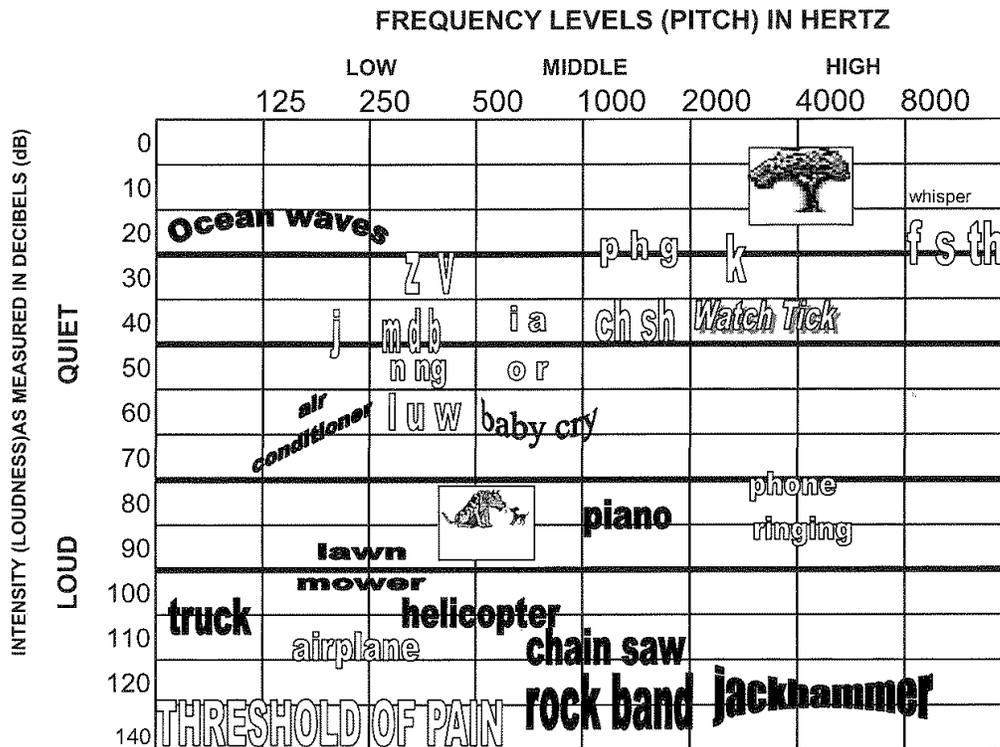
- MILD: Difficulty with faint speech
- MODERATE: Frequent difficulty with normal speech
- MODERATELY SEVERE: Frequent difficulty with loud speech
- SEVERE: Can understand only shouted or amplified speech
- PROFOUND: Usually cannot understand even amplified speech



The banana-shaped “area of speech” represents all of the sounds that make up normal, conversational speech. Mild and moderate hearing loss results in an inability to hear certain sounds. Severe and profound hearing loss means that conversational speech sounds are unable to be heard without amplification.

The above Audiogram is photocopied [with permission granted per online request instructions ([www.HealthLetter.MayoClinic.com](http://www.HealthLetter.MayoClinic.com))] from “Hearing Aid Technology” article in Mayo Clinic Health Letter, Volume 31, Number 6, June 2013. Copyright: Mayo Foundation for Medical Education and Research. All rights reserved.

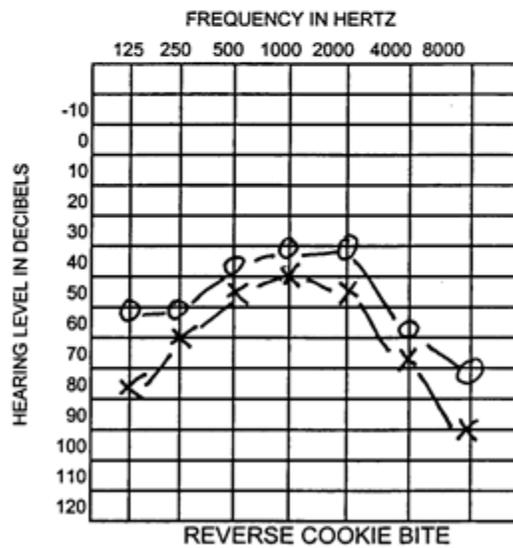
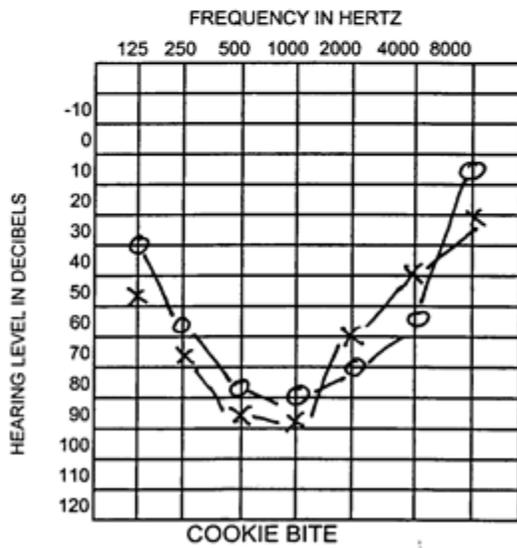
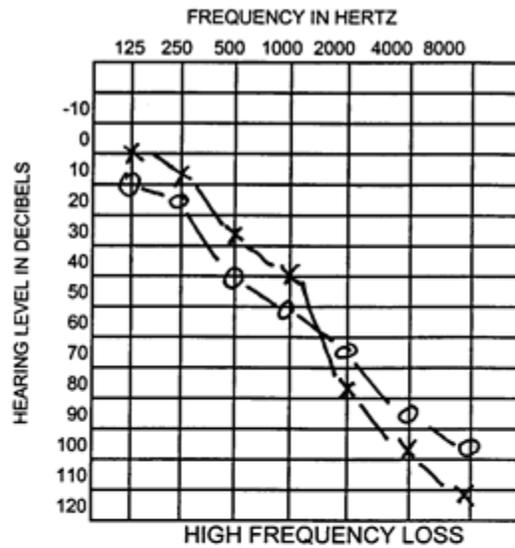
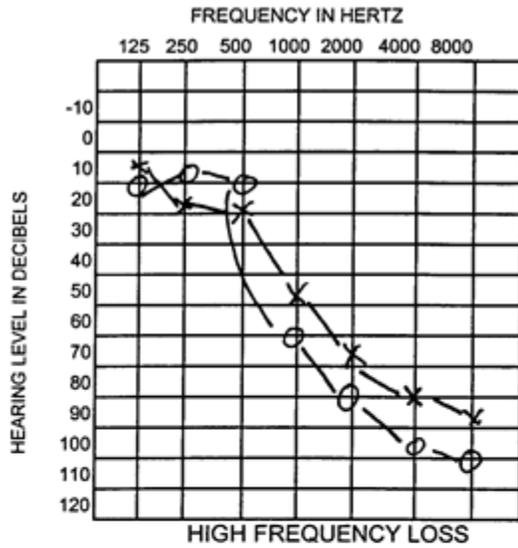
# RELATIVE INTENSITIES OF COMMON SOUNDS



These are sample “sounds.” If a person has a moderate hearing loss, he/she will have difficulty hearing a baby cry or an air conditioner. If a person has a severe hearing loss, he/she will have difficulty hearing a dog barking or a piano playing.

**Unusual Losses**

**Good Candidate for Programmable Hearing Aids**



X = Left Ear  
O = right Ear

## HEARING AIDS

### A. HEARING AID STYLES

Listed below and shown on the following page are the most common hearing aid styles (types). The smaller the hearing aid, the more expensive it is. Efforts should be made to purchase the best-priced hearing aid(s) possible and the most appropriate style.

1. Behind-the-Ear (BTE)

It is a small plastic case that sits behind the ear and is connected to an earmold by a piece of clear tubing.

2. On-the-Ear (OTE) Also known as Open Fit

This is a new style of the BTE that is smaller and uses domes or tubes instead of regular earmolds.

3. In-the-Ear (ITE)

This style fits in the contoured portion of the outer ear and is custom-made. It is approximately the size of a quarter.

4. In-the-Canal (ITC)

This is a small instrument and is less visible than the previously mentioned hearing aids. Although more cosmetically appealing, it is priced higher than the ITE and BTE.

5. Completely-in-the-Canal (CIC)

This style fits deeply into the ear canal. It is the most cosmetically appealing style of hearing aid because it is almost undetectable. Because it is significantly more expensive than the previously described hearing aids, the CIC should be purchased only in extenuating situations. Cosmetic reasons are not a sufficient justification.

6. CROS/BiCROS (Extra Feature)

Designed for someone who has no hearing in one ear and either normal hearing or a hearing loss in the other ear, the CROS/BiCROS technology helps re-route sounds that are coming into the ear that has no hearing and send them into the ear that is better able to hear. This helps an individual hear sounds from both sides without having to turn his/her head. This is available mostly on behind-the-ear-style hearing aids.

### **Photograph of Hearing Aid Styles**

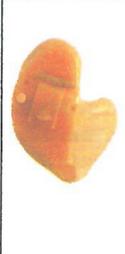
Left to Right: behind the ear, in the ear, in the canal, and completely in the canal.



### **B. TYPES OF HEARING AID TECHNOLOGY**

The chart on the next page – Hearing Aid Types - is photocopied [with permission granted per online request instructions ([www.HealthLetter.MayoClinic.com](http://www.HealthLetter.MayoClinic.com))] from “Hearing Aid Technology” article in Mayo Clinic Health Letter, Volume 31, Number 6, June 2013. Copyright: Mayo Foundation for Medical Education and Research. All rights reserved.

**Hearing aid types**

		<p><b>Completely in the canal (CIC) or mini CIC</b> These are molded to fit inside your ear canal and can improve mild to moderate hearing loss.</p>	<p><b>Pros:</b> The smallest and least visible hearing aids. These may help reduce problems with wind noise. Easiest to use with a telephone. <b>Cons:</b> The least powerful without much capacity for features. Short battery life of two to four days. Susceptible to earwax clogging the hearing aid. Small size makes them difficult to handle.</p>
		<p><b>In the canal (ITC)</b> These are custom molded and fit partly in the ear canal. This hearing aid can improve mild to moderate hearing loss.</p>	<p><b>Pros:</b> Hardly visible. Similar to the completely-in-the-ear model, but more powerful with greater capacity for features and longer battery life. Easier to use with the telephone than are some styles. <b>Cons:</b> Susceptible to earwax clogging. Small size makes them difficult to handle.</p>
		<p><b>In the ear (ITE)</b> These come in a full-shell mold that completely fills the ear canal, and a half-shell mold that fills the lower portion of the bowl-shaped area of your outer ear. Both are good for mild to moderately severe hearing loss, with the full-shell also being good for severe hearing loss.</p>	<p><b>Pros:</b> Easier to handle than smaller aids, with longer lasting batteries. Can include more features such as a directional microphone, telecoil and volume control. <b>Cons:</b> More visible and may pick up more wind noise than smaller aids. Susceptible to earwax clogging the hearing aids.</p>
		<p><b>Behind the ear (BTE) with custom ear mold</b> These hook over the top of your ear and sit behind the ear with an ear mold that fits inside your ear canal. A tube connects the aid to the ear mold. They're good for almost all types of hearing loss.</p>	<p><b>Pros:</b> The most powerful type with the most fitting flexibility. Easiest to maintain and usually require the fewest repairs. <b>Cons:</b> They're usually more visible and may pick up more wind noise.</p>
		<p><b>Receiver in canal (RIC) or Receiver in the ear (RITE) with custom ear molds</b> The piece on top of and behind the ear houses the microphone and circuit, while the speaker sits in the ear canal. The parts are connected with a tiny wire. They're good for almost all types of hearing loss.</p>	<p><b>Pros:</b> Can fit a wide range of hearing loss by using a speaker that's more or less strong as needed. Can be very small because the hearing aid case doesn't have to house the speaker. <b>Cons:</b> The speaker may have to be replaced due to earwax clogging the end of it. They may pick up wind noise.</p>
		<p><b>Open fit BTE, RIC or RITE</b> These leave the ear canal partially open. The thin tube on the BTE or the speaker of the open fit RIC and RITE models is coupled with a dome. Works well for those with adequate low-frequency hearing and mild to moderate hearing loss at higher frequencies.</p>	<p><b>Pros:</b> Less visible. Because they don't plug the ear canal, low-frequency sounds enter the ear canal normally, which can make your own speech sound better. <b>Cons:</b> Small parts can make these more difficult to handle. Limited volume due to feedback and frequency range makes them less effective for more severe hearing loss.</p>

**C. COMPARING HEARING AID STYLES**

<b>Features</b>	<b>Behind the Ear (BTE)</b>	<b>On the Ear (OTE) also “open fit”</b>	<b>In the Ear (ITE)</b>
Hearing Loss Fitting Range	Mild to Profound hearing loss	Mild to Moderate hi-frequency loss	Mild to Severe hearing loss
Telecoil (T-Coil) Available	Yes	Yes, on some	Yes, on most
Instrument Life	5-8 years	4-5 years	4-6 years
Battery Life	2-3 weeks	1-2 weeks	1-2 weeks
CROS/BiCROS Availability	Yes	-----	Space permitting
Advantages	<ul style="list-style-type: none"> <li>- Most powerful</li> <li>- Least expensive</li> <li>- For all hearing losses</li> <li>- Earmolds can be changed if problems with feedback, drainage, etc.</li> <li>- Can be modified with connections to sound sources such as assisted listening systems (FM and Infrared) and TV</li> <li>- Batteries last longer</li> </ul>	<ul style="list-style-type: none"> <li>- Less visible (very sleek looking)</li> <li>- The dome doesn’t plug the ear like the BTE earmolds and the small ITC aid</li> </ul>	<ul style="list-style-type: none"> <li>- Holds larger sound amplifier than in-the-canal aid</li> <li>- Can have more features such as directional microphone, compression, telecoil, and multiple memory programs</li> </ul>
Disadvantages	<ul style="list-style-type: none"> <li>- Earmold may need to be remade periodically, especially if damaged or ill-fitted</li> <li>- Larger and more noticeable than other aids</li> </ul>	<ul style="list-style-type: none"> <li>- Uses small batteries</li> <li>- Lacks manual adjustments due to the small size</li> <li>- Best for high frequency losses as the ear canal is much more open with the dome</li> </ul>	<ul style="list-style-type: none"> <li>- Chronic feedback due to closeness of microphone and receiver</li> <li>- Small size battery door and volume control can be difficult for some to adjust</li> <li>- Can be damaged by earwax and drainage</li> </ul>

Comparing Hearing Aid Styles (Continued)

Features	In The Canal (ITC)	Completely in the Canal (CIC)
Hearing Loss Fitting Range	Mild to Moderate Hearing Loss	Mild to Moderate Hearing Loss
T-Coil available	On some hearing aids	Rare
Instrument Life	3-5 years	3-4 years
Battery Life	7-10 days	5-7 days
CROS/BiCROS Availability	No	No
Advantages	<ul style="list-style-type: none"> <li>- Cosmetically appealing</li> <li>- Good sound reception due to placement of the microphone in the ear canal</li> </ul>	<ul style="list-style-type: none"> <li>- Smallest size ( invisible)</li> <li>- Receiver close to eardrum and provides natural loudness</li> </ul>
Disadvantages	<ul style="list-style-type: none"> <li>- Small battery, shorter life</li> <li>- Feedback (whistling) due to closeness of mike and receiver</li> <li>- Very small volume button</li> <li>- Problems with wax buildup, oil production and ear drainage problems</li> </ul>	<ul style="list-style-type: none"> <li>- Must have large ear canal</li> <li>- Most expensive</li> <li>- Not for severe to profound hearing loss</li> <li>- Very small battery, short life and hard to place in hearing aid</li> <li>- No volume control</li> <li>- Feedback problems</li> <li>- Highest repair rates due to ear wax buildup and drainage and oil production</li> </ul>

\*The average life-span of a hearing aid depends on the individual’s lifestyle and how well the individual takes care of the aid and their lifestyle. For example, an office worker’s aid will last longer than the hearing aid of someone who works outside all the time.

**SAMPLE ACCOMMODATIONS AND MODIFICATIONS**

Deaf, late-deafened, hard of hearing and deaf-blind individuals have varying degrees of hearing loss and have different communication modes and different limitations. As a result, accommodations will vary and should be determined on a case by case basis. The following questions should guide the counselor when determining the appropriate accommodations: What limitations are being experienced by the individual with hearing loss? How do the limitations affect his/her job performance? What job tasks are

problematic as a result of the limitations? Will the available accommodations reduce or eliminate the problems? Has the individual been consulted regarding possible accommodations? Below are some sample accommodations for the workplace listed by the Job Accommodations Network.

1. For face-to-face communication situations:
  - a. Write notes. Some deaf and hard of hearing persons who use American Sign Language may have difficulty with reading and writing so this may be difficult for some.
  - b. Use a computer to type messages back and forth.
  - c. Use text-to-text devices such as the Ubi Duo, which consists of two matching keyboards with tilting screens. What each person types appears on both screens simultaneously.
  - d. Use email or text messages instead of face-to-face meetings.
  - e. Hire a qualified sign language interpreter, especially for longer meetings.
  - f. Use an assistive listening device like an FM system or portable amplifier (such as Pocket Talker).
2. For group or meetings:
  - a. Hire either a qualified sign language interpreter to attend the meeting or use a video remote interpreter (VRI) through a computer.
  - b. Use an assistive listening device.
  - c. Try to meet in small groups in a quiet environment; round tables come in handy.
  - d. Talk with staff about meeting etiquette (one person should talk at a time, don't cover mouth, etc.).
  - e. Hand out agendas and written materials before the meeting and offer minutes afterwards.
  - f. Have another worker provide note-taking on a laptop during the meeting.
  - g. Contract out for CART reporting (Communication Access Real-Time Translation).
3. For telephone communication, use:

- a. Telephones with amplification and/or clarity technology.
  - b. Hearing-aid-compatible headset or amplified noise-canceling headset (need t-coil option in hearing aids).
  - c. Captioned telephone (Cap-Tel phone).
  - d. Teletypewriter for the Deaf (TTY).
  - e. Voice Carry Over (VCO) for individuals who can speak, but not hear on the phone.
  - f. Relay service using TTY, a personal computer, or videophone equipment. (Videophones are a big favorite of many deaf, hard of hearing, late deafened and deaf-blind individuals who use sign language.)
4. For communication in the field:
- a. Use e-mail or instant messaging (IM) instead of voice phone or use mobile two-way radio or cell phone with text messaging capability.
  - b. Use a personal paging system.
  - c. Install lighted fire strobes and other visual or vibrating alerting devices to supplement audible alarms.
  - d. Use a portable videophone or TTY where relay service is available.
5. For notification systems:
- a. Use sound signaling devices to use at work and at home to alert individuals to a broad spectrum of sounds including, telephone ring, doorbell, fire/smoke alarm, carbon monoxide, doorbell, baby cry, and weather warnings.
  - b. Use signals by light, vibration, strobe or paging systems.
  - c. Services can be purchased individually or by the system. Potential systems include Sonic Alert, Clarity, Ultratec Simplicity, Bellman and Symfon, Silent Call Communications.
6. Alarm clocks:
- a. Outlets to connect to a lamp or use with bed vibrator

- b. Buzzers up to 98 dB
- c. Travel clocks
- d. Vibrating cell phones

\*\*From Job Accommodations Network: <http://www.jan.wvu.edu/media/hearing.html>

## DEFINITIONS RELATED TO DEAFNESS

**Adventitious Hearing Loss-** Hearing loss through illness or accident occurring later in life.

**Audiogram-** A graph of hearing acuity recorded during hearing tests that shows the degree and type of hearing loss.

**Bilateral Hearing Loss-** Hearing loss in both ears.

**Congenital Hearing Loss-** Hearing loss from birth or soon thereafter.

**Deaf-** Severe to profound hearing loss in which there may be some residual hearing, but it is not useable for speech discrimination purposes; hearing loss of such severity that the individual must depend primarily upon visual communication such as lip-reading, writing, manual communication, and gestures. This is usually a 70db loss or greater in both ears and a speech discrimination score of 40% or less in the better ear.

**Hard of Hearing-** A hearing loss resulting in a functional loss, but not to the extent that the individual must depend primarily upon visual communication. This is usually a 30db loss in the better ear with speech discrimination below 50%; a person with a mild hearing loss who normally communicates by lip-reading may find benefit from use of a hearing aid.

**Hearing Aid-** Device used to amplify sound.

**Hearing Impairment-** Hearing loss that is sufficient enough to interfere with communication and daily living.

**Lip reading** (speech reading) - Watching a person's lips and facial movements to understand what is orally spoken. Typically less than 40% accuracy rate.

**Oralism-** A method of educating the deaf that involves speech and speech reading. Does not incorporate manual or signed communication.

**Residual-** Amount of hearing a person has left after experiencing a hearing loss.

**Tinnitus-** Buzzing, ringing, and other noises produced in the inner ear.

**Unilateral Hearing Loss-** Hearing loss in one ear.

**Vertigo-** Dizziness.

### **Types of Hearing Loss**

**Conductive Hearing Loss-** Damage or obstruction in the outer or middle ear that blocks the sound waves so voices and/or noises may seem distorted, faint, or both.

**Mixed Hearing Loss-** A hearing loss caused by conductive and sensorineural factors.

**Sensorineural Hearing Loss-** “Nerve Deafness” is when the signal cannot be properly delivered to the brain because of damage or improper formation of the inner ear/auditory nerve.

### **Onset of Hearing Loss**

**Pre-lingual Hearing Loss-** Occurs before the acquisition of language (around age 3).

**Pre-vocational Hearing Loss-** Occurs after age where spoken language normally is acquired (usually before the age of 18). The effects of pre-vocational deafness depend on the individual and the duration of loss.

**Post-vocational Hearing Loss-** The effects of post-vocational deafness depend on the individual and the duration of loss (usually after the age of 18).

## PART 2: GUIDELINES FOR COCHLEAR IMPLANTS AND BONE-ANCHORED HEARING AIDS

See Part 3 for State Prior Approval Checklist for Cochlear Implants (CI) or Bone-Anchored Hearing Aids (BAHA) Surgery/Implantation.

### AN OVERVIEW OF COCHLEAR IMPLANTS

Note: Narrative originally written by Gary Cater, DO, VR Medical Consultant

The use of cochlear implantation is relatively new. This option has **been a successful type of therapy for those with severe to profound sensorineural** hearing loss, and for those who are unable to be helped with conventional hearing aids. This small electronic device is surgically implanted under the skin behind the ear. Sound waves enter the microphones which are then sent to a speech processor via a thin cable that can be worn on a belt or attached to a behind-the-ear device (looks like a hearing aid). The speech processor is a powerful miniature computer that translates incoming sounds into distinct electrical codes. The speech signal is sent through the same cable, to the headpiece and transmitted across the skin via radio waves to the implanted device. This signal then travels down to the electrode array that has been positioned within the inner ear and stimulates the auditory nerve. This eventually is interpreted as meaningful sound.

Those individuals who no longer have useful speech recognition even with high-powered hearing aids can benefit from a cochlear implant. Hearing aids simply amplify sound. The implant bypasses the damaged parts of the inner ear and electrically stimulates the auditory nerve fibers in the cochlea. While it may take some time, even months, most individuals in case studies develop successful auditory stimulation.

Originally, these implants were limited to individuals who were post-lingually deafened adults and did not have bony sclerosis of the cochlea. Recently, these devices have been approved for use with pre-lingually deafened children. There have also been favorable results in adults with partial to near obliteration of their cochleas.

The risks of cochlear implant surgery are no greater than those associated with any major ear surgery requiring general anesthesia.

The advanced technology has replaced the original single channel device with multichannel implant devices. The user can switch among speech strategies to the one that provides the optimal sound quality. Future strategies may be added with new

computer software programs. This would not require replacing either the implanted or the external components.

## **General Conclusions**

1. Etiology does not appear to affect auditory performance.
2. Individuals with shorter durations of auditory deprivation achieve better auditory performance from any type of sensory aid, including a cochlear implant, than do individuals with longer duration deafness.
3. Cochlear implantation has a profound impact on post-lingual deafened adults with success rates of 80-90% speech recognition. Results, however, still show wide ranges of outcomes.
4. The vast majority of deaf adults with cochlear implants derive substantial benefit when the implant is used with speech reading. Potential candidates must be required to develop lip reading skills and attend training sessions for this purpose, if necessary.
5. Because of the wide variability in speech perception and recognition in persons with similar hearing loss, all candidates require counseling about the surgery to address its risks, benefits, and alternatives to surgery.
6. Individuals should understand that the large variability in individual performance precludes pre-operative predictions of success.

## **PROCESS OF COCHLEAR IMPLANTATION**

### **1. Pre-Operative Preparation**

- a. Evaluation of hearing, speech, language, voice, communication, and/or auditory processing
- b. Otolaryngologist visit
- c. Radiographic studies (CAT scan or x-rays) of the inner ear
- d. Other tests and/or services as required (example: balance testing)

## 2. Implant Procedure

- a. **Hospital-** (surgery) cost is based on the agreed Florida Medicaid payment, which includes the implant and any other services (e.g. CAT scan) that the individual needs while the individual is in the hospital. (This is usually an outpatient surgery.)
- b. **Anesthesiology**
- c. **Doctor Fee for Surgery** (usually fee code 699300)
- d. **Cochlear Implant Devices/System-** The wearable speech processor and headset may not be purchased while the individual is in the hospital. Either the hospital or otolaryngologist will provide the speech processor and headset (at actual cost). The physician may not earn any profit above and beyond the actual cost (fee code CL8614). Some hospitals may request payment for the device prior to surgery. And on a separate authorization, pay the agreed Medicaid rate. Prior to the surgery, check with the hospital regarding its procedures relating to cochlear implants and devices.
- e. Electromyography during Surgery (fee code 958670)

## 3. Post-Operative Activities

- a. **Audiological (Aural) Rehabilitation-Post-Surgery-** stimulation, programming, training, and counseling. This is also known as mapping sessions.
- b. **Speech Processor Programming and Therapy-** Up to three hours once a week for ten weeks, for a total of 30 hours; additional sessions beyond 30 hours require prior approval.
- c. **Final Testing** - Follow-up visits at 6, 9, and 12 months. (Mapping)
- d. Other tests and/or services as required.

## COCHLEAR IMPLANT CODES

### PRE-OPERATIVE CODES- AUDIOLOGY

(RIMS Service Type: Physical Restoration)

**925500 Tympanometry & Acoustic Reflex Threshold Measurements (Combined 925670 & 925680)**

- 925560 Speech Discrimination Testing-** The individual will undergo a series of speech perception tests. Each test will be billed separately under this code. Approximately eight to ten tests are required. These tests include selected tests from the NIAC battery of speech discrimination tests; Question/Statement Test, Vowel Discrimination Test, Noise/Voice Test, Accent Test, CID Everyday Sentence Discrimination Test, and Initial Consonant Discrimination Test. Speech Tracking Tests and Telephone Speech Discrimination Tests are also administered. Speech perception testing is completed pre-op and at regular intervals post-op.
- 925570 Comprehensive Audiometry Threshold Evaluation and Speech Recognition (Both 925530 & 925560) -** The patient is evaluated with and without hearing aids. In addition to a hearing evaluation under headphones, each ear will need to be tested alone with a hearing aid, and then both ears will need to be tested together with hearing aids. At least four tests will be completed. If an individual's hearing aids are determined to be inappropriate, testing with hearing aids will be repeated with more appropriate hearing aid devices.
- 925670 Tympanometry-** This test checks the integrity of the middle ear system and assists in identifying middle ear disease such as ear infections, otosclerosis, ossicular chain discontinuity, and other middle ear abnormalities.
- 925680 Acoustic Reflex Testing-** This test assists in determining the cause or site of the hearing loss. Acoustic Reflex Thresholds are measured at various frequencies in an effort to determine whether hearing loss is conductive, sensory, neural, or sensorineural.
- 925850 Auditory Brainstem Response Testing (ABR)-** This test is used to determine the integrity of the auditory neural pathways. Additionally, this test is often used to estimate hearing thresholds in both children and adults.
- 925870 Evoked Otoacoustic Emissions- Single**
- 925880 Evoked Otoacoustic Emissions- Comprehensive**
- 925940 Electroacoustic Evaluation for One Hearing Aid**
- 925950 Electroacoustic Evaluation for Two Hearing Aids**
- 926260 Evaluation of Auditory Rehabilitation Status; First Hour**

- 927000 Cochlear Implant (CI) Counseling**
- 977610 Prosthetic Training; Upper and Lower**
- 992040 MD Visit; New Patient 45 Minutes** (codes may vary with different doctors, depending on time)
- 704800 CT Scan** (without contrast)

**OPERATIVE CODES**

(RIMS Service Type: Physical Restoration)

- 697140 Implantation, Osseointegrated Implant, Temporal Bone without Mastoidectomy** (Surgery)
- 697150 Implantation, Osseointegrated Implant, Temporal Bone, with Mastoidectomy** (Surgery)
- 697170 Replacement (including removal of existing device), without Mastoidectomy** (Surgery)
- 697180 Replacement (including removal of existing device), with Mastoidectomy** (Surgery)
- 699300 Cochlear Implant** (Doctor Fee)
- 770020 Fluoroscopic Guidance for Needle Placement** (Replaced 959200)
- 958670 Needle Electromyography**
- CL8614 Cochlear Device/System (Install Device)** - RIMS Services Type: Prosthesis/Orthotics Plus Cost of Hospitalization (RIMS Service Type: Hospitalization for per diem rates at a particular hospital) **Plus: Anesthesia**

**POST-OPERATIVE CODES - SURGERY**

(RIMS Service Type: Physical Restoration)

- 925070 Treatment of Speech, Language, Voice, Communication, and/or Auditory Processing Disorder-** Includes aural rehabilitation, individual.
- 925670 Tympanometry-** Used in combination with 92568 and 97750 to set comfort limits in the speech processor.

- 925680 Acoustic Reflex Testing-** Used in combination with 92567 and 97750 to set upper comfort limits in the speech processor. This is to help insure that stimulation through the processor is not too loud for the patient.
- 926030 Diagnostic Analysis of Cochlear Implant-** Patient seven years or older with programming (effective on 03/01/03.)
- 926040 Diagnostic Analysis of Cochlear Implant-** Patient seven years or older with subsequent re-programming.
- 977500 Set Upper Comfort Limits in the Speech Processor-** Used in combination with 925670 and 925680 .
- 977610 Prosthetic Training-** (Replaced 975200) For upper and/or lower extremity(ies), 15 minutes each. This includes showing the patient how the equipment functions and instructions on how to use the device.
- 977620 Prosthetic Checkout-** (Replaced 977030) Check out for orthotic/prosthetic use; established patient, 15 minutes each. This code will be used each time the patient is seen to check all the parts of the device for problems. If one or any of the external components of the cochlear implant system is not functioning, the patient will not hear from the device correctly. The audiologist should check all of the external equipment including Microphone, speech processor, coil/magnet device, and cords.

**PARTS-REPAIR-REPLACEMENTS\*\***

**(RIMS Service Type: Prosthesis/Orthotics)**

- C99701** Cochlear Implant (CI) Repair
- C99702** CI Supplies and Materials
- CL8615** Replace CI Headset
- CL8616** Replace CI Microphone
- CL8617** Replace CI Trans. Coil
- CL8618** Replace CI Trans. Cable
- CL8619** Replace Cochlear Processor
- CL8620** Replace Lithium Ion Battery

- CL8621** Replace Zinc Air Battery
- CL8622** Replace Alkaline Battery
- CL8623** Lithium Ion Battery CID, non ear level
- CL8624** Lithium Ion Battery CID, ear level
- CL8627** Cochlear Implant, External Speech Processor, Component, Replacement
- CL8628** Cochlear Implant, External Controller Component, Replacement
- CL8629** Transmitting Coil and Cable, Integrated, For use with CI Device, Replacement

#### **OTHER OPTIONAL SERVICE CODES**

- 697140** ImpltJ 01 Implt B1 B/O Mstdc
- 697150** ImpltJ 01 Implt B1 Mstdc
- 697170** Replacement 01 Implt B1 W/O Mstdc
- 697180** Replacement 01 Implt B1 Mstdc
- 925560** Speech Audiometry

\*\*When purchasing CI Cords and related items from a physician use code C99999 (Other orthotic/prosthetic items not elsewhere listed). When purchasing CI Cords and related items from an audiologist, use Code 990700.

(Note: Original Pre/Post-Operative Audiology codes and descriptions were provided to Disability Examiners of America by Dr. Bartel of Tampa.)

#### **QUALIFICATIONS FOR COCHLEAR IMPLANTATION**

**The following qualifications are provided for Counselors when considering candidates for cochlear implants:**

1. The individual must have severe or profound sensorineural hearing loss and unable to benefit from any type of hearing aid.
2. The individual must have post-lingual deafness, be of working age, and have the potential to become employable. Those with pre-lingual deafness must demonstrate ability to use speech for everyday communication.

3. The individual must not have any mental or medical condition that would preclude optimal use of the cochlear implant, such as active middle ear infections, cochlear ossification that prevents electrode insertion, absence of cochlear development, or tympanic membrane deformation.
4. The individual must receive prior consultation concerning benefits and risks of the cochlear implant and acknowledge the changes that may occur in one's life as a result of this procedure.
5. The individual will agree to first explore outside resources including private insurance to cover any, if not all, the costs of a cochlear implant before seeking Vocational Rehabilitation (VR) sponsorship.
6. If qualified for cochlear implant, the individual must agree to attend all scheduled rehabilitation sessions, in addition to the initial programming of the speech processor following the recuperation period after surgery.

## **PERSONNEL QUALIFICATIONS**

**Physician-** Those involved in cochlear implant surgery must be a board certified otolaryngologist and on the VR vendor list; must have at least 30 hours post-graduate training in cochlear implants.

**Audiologist-** Those involved in cochlear implant cases must be certified audiologists with the American Speech Language and Hearing Association and have at least 30 hours post-graduate training in cochlear implants. These professionals carry credentials such as Au.D. and CCC-A.

## **PAYMENT FOR COCHLEAR IMPLANT(S)**

**The Division of Vocational Rehabilitation (VR) will pay based on the following types of cases:**

1. VR sponsored-
  - a. VR will pay the hospital Medicaid per diem rate or the Diagnosis Related Group (DRG) rate.
  - b. If the hospital requested payment for the actual cochlear implant (CI) device, VR will pay for one CI device, using code CL8614. If the hospital will not accept the amount in RIMS, a policy exception must be submitted. This is a separate request to a prior approval. [Reference: Counselor Policy, Chapter 15(3)]

- c. VR will pay for doctor fees and pre and post-operative services at the Medicare rate.
  - d. If a second device and speech processor are recommended, VR will require an additional justification from the physician who specializes in cochlear implantation.
2. Medicaid recipient-
- a. Medicaid will pay for one implant.
  - b. If two implants are required, VR will pay for the second device, doctor fees and pre and post-operative services at the Medicare rate.
  - c. If a second device and speech processor are recommended, VR will require an additional justification from the physician who specializes in cochlear implantation.
  - d. VR will pay the deductibles and/or coinsurance that Medicare does not cover.
3. Private insurance recipient-
- a. VR will pay the co-payment.
  - b. If the third party only pays for one implant, VR would pay for the second implant, doctor fees and pre and post-operative services at the Medicare rate.
  - c. If a second device and speech processor are recommended, VR will require an additional justification from the physician who specializes in cochlear implantation.

**Note:** If a second device is justified, VR will pay 50% using the modifier 50 (bilateral).

To replace or repair external CI components (i.e. processor), state prior approval is not required. **However**, if the cost to replace an external component (i.e. processor) exceeds the Medicare rate, the counselor must submit request for a **State Prior Approval Policy Exception** to allow VR to pay the difference in cost.

## **AN OVERVIEW OF BONE-ANCHORED HEARING AIDS (BAHA)**

This section provides codes and prior approval procedures for **BAHA** that are similar for cochlear implants.

A Bone Anchored Hearing Aid (BAHA) is a special hearing aid attached by a titanium screw inserted in the skull. The hearing aid transmits sounds through the bone to the inner ear bypassing the auditory canal and middle ear. This device does not use an earmold. Because BAHA involves surgery, a state prior approval is required.

BAHA is ideal for individuals who have a good use of residual hearing for everyday communication purposes, but cannot wear regular hearing aids with earmolds. BAHA accommodates problems with the external ear canal (e.g., chronic ear wax or drainage, skin irritation, inflammation, eczema, allergy, or deformities such as being born without an external ear canal).

Refer to State VR Prior Approval Checklist for CI or BAHA Surgery/Implantation to guide you in securing state prior approval for individuals needing BAHA.

### **BAHA CODES**

Consult with the vendor on appropriate codes for surgery and devices as some codes may be similar to CI as listed under OPERATIVE CODES (physical restoration). There is no professional fee. For example, consider implantation fee code **958670 or 697140** plus hospitalization rate and other fees as required.

**BAHA specific codes listed in RIMS under Prosthetics and Orthotics include the following:**

- CL8690** (internal and external components)
- CL8691** (external component or sound processor: replacement only)
- CL8689** (external recharging system- internal)
- CL8695** (external recharging system- external)
- CL9900** (miscellaneous orthotic or prosthetic component or device accessory) - Can only be used for purchasing the external component or speech processor.
- 92700** (unlisted otorhinolaryngological service or device) Covers professional services including assessment, adjustment fitting, and dispensing sound processor (Physical Restoration Code).
- CL8699** (prosthetic implant, not otherwise specified)
- C97705** BAHA repair (new)

## PART 3: STATE VR PRIOR APPROVAL CHECKLIST FOR COCHLEAR IMPLANTS (CI) OR BONE-ANCHORED HEARING AIDS (BAHA) SURGERY/IMPLANTATION

VR Customer: \_\_\_\_\_ VR# \_\_\_\_\_

**All Cochlear Implantation (CI) and Bone-Anchored Hearing Aids (BAHA)** require state prior approval. Each individual case must first be reviewed with the area medical consultant. Requests for approval must be sent to the Bureau of Field Services at the State Vocational Rehabilitation (VR) office. The requests will be reviewed prior to authorization of CI or BAHA.

**CI** and **BAHA** speech/sound processor (external device) replacements or repairs do not require state prior approval.

**To obtain Prior Approval from the State Office, forward the following documents as a package to the Bureau Chief of Field Services, along with the State Level Prior Approval Template:**

- a) \_\_\_\_\_ **Narrative summary** prepared by the counselor stating how the individual will benefit, in terms of employment, by receiving a cochlear implant or BAHA. Include the following: the number of implants being recommended; the availability of similar benefits; documentation of informed choice through counseling and guidance with the individual including, but not limited to, the benefits of a cochlear implant/bone anchored hearing aid and risks of surgery
- b) \_\_\_\_\_ **Copy of the evaluation reports** from the audiologist (audiological, hearing aid, and speech evaluation with indication of individual's lip-reading ability) and qualified otolaryngologist (ENT report), along with radiographic studies of the cochlea stating that the individual is a good candidate for the cochlear implant (or BAHA) and surgery
- c) \_\_\_\_\_ **Copy of consultation report** from the area medical consultant regarding the appropriateness of the procedure and implications for the individual's vocational rehabilitation
- d) \_\_\_\_\_ **Copies of additional reports as required**, such as GME, psychological, ophthalmological, and any supporting documentation that is not in the data system that the counselor feels is pertinent.