



# LEARNING MODULES GUIDE

## Introduction

Hello! I'm so happy you are here to learn more about how to hear your best! As you know, this is a process that is much more complicated than simply putting an amplifier on your ear.

This website has different levels to help you learn about your hearing, the products that you are using, how to take care of your hearing instruments, and some rehabilitation listening tasks to help your brain re-learn how to hear people speaking.

There are 5 Modules:

- Introduction to the Ear and Why Hearing is Important
  - This level should be reviewed by all
- Beginner
  - This level is for a first time user or when you are changing to new hearing technology
- Intermediate
  - This level is for when you're feeling more confident in regularly wearing your hearing instruments, but would like more strategies on how to optimize use.
- Advanced
  - This level is for when you've been wearing hearing instruments for an extended period of time and would like to challenge yourself even further.
- Expert
  - This level is for the long-time hearing instrument user who would like to start helping others and becoming an advocate for others with hearing loss.

Each Module takes you deeper into levels of the complex world of wearing hearing instruments and utilizing them to your best abilities.

Please note that this website is for educational purposes only and does not replace seeing a professional near you. We encourage you to establish a relationship, if you have not already, with an audiologist in your region. It is important that someone is there to look in your ears, examine you, ensure that you have proper fitting devices, and to answer any specific questions you may have.

## 1. Introduction Module

### **Introduction to the Ear and Why Hearing is Important”**

Characteristics of someone in this module:

- This level should be reviewed by all
- Anyone who wants to learn about hearing loss (person with hearing loss, parents, spouses, siblings, teachers, friends, and caregivers)
- This can be a review of information, or learned for the first time

Milestones:

- Once you’ve finished the videos in this module, you are ready to move on to the next module. If, however, you are more advanced than a beginner hearing aid user, feel free to jump ahead to the level that meets your needs best.

## **Hearing Loss & Happiness**

Hearing is very important. It’s important for communicating with speech. Babies learn spoken languages by listening for about a year before they try to speak the language. They listen and practice speaking the language for a few more years to begin to master communication skills. Learning for children is heavily based on listening. Connecting with others is important. Most people connect and “catch up” with friends and family by speaking and listening.

Studies show that the greater the hearing loss, the greater the negative effects on their social and cognitive health. The greater the hearing loss, the higher the chances of depression. Isolation from other can occur with hearing loss because it causes an auditory barrier. Hearing loss can decrease the ability to learn new things. Hearing loss decrease independence and increase safety risks. Hearing loss can put someone at a higher risk for failure to follow new medication instructions. Hearing loss can increase arguments and cause frustrations between people. Hearing loss can increase levels of paranoia. But what if someone improved their hearing? How could their level of happiness improve?

Functional MRIs have shown that music stimulates and lights up our entire brain. It can instantly change our mood, transport us in time, and make us happier. There have been cases reported of people with severe dementia, who haven’t spoken for months, but music “awakened” them and they suddenly know all of the words in a song and have an increased appetite that day and a lot to say. Having a heart-felt conversation with someone can also improve your outlook on life. Better communication is the key.

**Remember, your hearing can change.**

**If you are having difficulties, find an audiologist. They can help.**

## 1. Introduction Module

### How the Ear Works

The ear has three parts:

- the outer ear
- the middle ear
- the inner ear

When sound enters the outer ear, it goes into the ear canal. It then vibrates the eardrum, which moves the three little bones in the middle ear. The three bones are called the malleus, the Incus, and the stapes. The stapes vibrates the round window of the inner ear. The inner ear is called the Cochlea. The Cochlea looks like a shell and is filled with fluid. The fluid filled cochlea also has hair cells that move with the movement of the fluid. The fluid moves depending on the sounds that were vibrating in. The movement of the hair cells begins the electrical signal that is sent down the auditory nerve to the brainstem and then onto the brain.

If you ever need your type and degree of hearing loss explained to you, find an audiologist. They can help.

### Hearing in Noisy Situations

How do you hear in noisy situations? When your hearing instruments are adjusted properly and you have been practicing wearing them for a proper amount of time, you will find that you can hear much better with the hearing instruments on than you do without them on. You can find that you can talk to most people, but when you are in noise, you may find out that all of the people you want to listen to are loud and so is the noise.

Many people complain that they thought the hearing instruments would block all noise. They can become frustrated and angry, even, with their hearing instruments because they are not blocking noise.

So why does this happen? Why can't the hearing aids block the noise?

Noise, by definition, is any you don't want to hear. If two people go to a gathering that has people and a band playing. One person could have gone there to hear their favorite son play in the band and become annoyed because they can hear others talking. They could blame the hearing aids for not blocking the "noise". In this example the band is the signal and the people talking are the noise.

A different person could have gone there to meet up with friends and are annoyed because they can hear the band playing and wish it would stop so they could hear the discussion their friends are having. In this example, the “noise” is the band and the desired signal is the people talking. Your brain needs to choose what it wants to listen to. This is called Executive Functioning. Sometimes, your brain is simply not able to strain enough to block a noise source that is close to you. You may need to physically move to a different side of the table or to a different section of the room. When you do move, try to look at the person who is talking. Try to face them directly so you hear them evenly in both ears. (in stereo) Face them and watch their lips.

Try to not allow your brain to drift and be bothered by what you DON'T want to hear. Use that energy to focus better on what you DO want to hear.

Hearing in difficult listening situations takes practice. Daily you need to practice with the hearing aids on. Practice focusing. Practice localizing. Practice listening in background noise.

If you are having difficulties, find an audiologist. They can help.

## **Ear Wax: How would someone know they have ear wax?**

You may not know unless someone tells you. The best way to find out is to see a professional who uses an otoscope and checks for you. You could see a general physician, an Otolaryngologist, or an Audiologist.

If there is ear wax in the ear canal, how would someone remove it?

- Suction, Irrigation, or Curette
- Do not use paper clips, car keys, toothpicks, q-tips, or ear candling.
  - Any of these have the potential to damage your ear.

If you wear hearing instruments that send the sound into your ear canal, you might think the hearing instruments are not working properly because the sound is being blocked by the ear wax. The ear wax can also break your instruments.

## How are hearing aids adjusted for different people?

A comprehensive hearing evaluation is a gold standard, which includes proper visualization of the ear with an otoscope and specialized testing. Hearing testing is the first step and quite necessary for ensuring that a hearing instrument helps someone hear their best. Based on the test results, the audiologist helps select hearing instruments that would work best for the individual person.

Some questions asked:

What style? How powerful does it need to be? Will it be rechargeable?

Once the hearing instrument has arrived (it's usually custom ordered), the audiologist then enters the hearing test results into computer software to link the hearing instruments and adjust the sounds to help improve each, individual's hearing abilities. Lastly, in best case scenario, Real Ear Measurement is conducted to verify that the instruments are giving the amounts of amplification that is most appropriate.

Why? Because everyone has a unique ear canal size and shape and the sound can be different for each person. The computer software is assuming that each individual is just like the average human being. For example, really small ears makes the hearing aids louder than normal and really large ears makes the sounds softer than normal. REM will help the audiologist to make adjustments to the programming software, based on the individual in front of them. If you ever need your type and degree of hearing loss explained to you, find an audiologist. They can help.

## 2. Beginner Module

### **Characteristics of someone in this module:**

- This level is for a first time user or when you are changing to new hearing technology
- Anyone who wants to learn about hearing loss (person with hearing loss, parents, spouses, siblings, teachers, friends, and caregivers)
- This can be a review of information, or learned for the first time
- Aural Rehab Exercises
- Lip Reading
- Communication Reminders

### **Milestones:**

- Are you able to put your hearing instruments on without assistance?
- Do you know how to clean your instruments?

### **Action Items:**

- Watch the videos
- Begin wearing your hearing instrument(s) 6-8 hours per day
- Listen to familiar music when the room is quiet
- Turn on Closed Captioning
- Join the Facebook Community

## How Do You Know the Hearing Aids are Working?

Tap on the microphones.

- Can you hear a beep or a scratching?

Cup your hand over your ears

- Can you hear feedback?
- If you answer “no”:
  - Do you have rechargeable hearing aids?
    - Yes - Does your charger light turn green when you plug the hearing aids in?
    - No- Have you tried to change your batteries once?
- Now that you know your battery is working, let's check the microphone(s).
  - Is it blocked by anything? It can easily become blocked by skin cells, dandruff, lotion, oils, hair spray, and makeup.
  - Use a brush to gently brush away anything blocking your microphones.
- Next, let's check the part that goes into your ear.
  - It's called the Receiver. It is placed into your ear canal where wax also lives daily. It could be blocked by wax.
  - Check the end of the hearing aid to see if you can visualize wax.
  - First try and wipe it away with a tissue. If that doesn't help, use a wire loop to gently pull the wax away.
  - If that doesn't work, you may need to remove the dome (if there is one) and use the wire loop to clean out wax from inside it.
  - Now that the dome is removed, look at the end of the receiver.
    - Do you see wax? Can you remove it with the wire loop?
    - Is there a wax filter in place? Can you change that?
- If the hearing aid still is not working and you do not know how to change the wax trap, Watch the next video about how to clear the wax.

If you are having difficulties, find an audiologist. They can help.



## **Hearing Instrument Orientation**

There are various styles and sizes of hearing instruments. The most common are: “Behind the Ear” and “In the Ear”

The “Behind the Ear” also known as “BTE” hearing instrument places the electronics and the microphones and battery source up on top of and hanging behind the pinna of the ear. The sound from the behind the ear section is then sent to the ear canal with either a tube or a wire. A section of the hearing aid is then placed into the ear canal, so the new, amplified sounds can be heard by the ear.

The “In the Ear”, also known as “ITE” hearing instruments are usually custom made. All of the components, including the battery are placed in the ear. Some go deeper into the ear canal, while others are larger and fill the outer bowl (concha) of the ear. With the ITE’s the microphone faces out and the hole that is connected to the speaker/receiver are pushed into the ear canal.

How do you put the hearing aids on?

Remember: Blue for left and Red for right! The microphone face out (to pick up the world of sounds) and the receiver (speaker) goes into the ear.

**Blue = Left**

**Red = Right**

## **Daily Hearing Aid Reminders** *(FOR THOSE WITH DISPOSABLE BATTERIES)*

### **In the Morning**

1. Remove the hearing aid from the case
2. Close the battery door
3. Put it OVER the top of your ear
4. Push the Dome into your Ear
5. Check your ears in a Mirror

### **At Night**

1. Remove the aid from your Ear
2. Open the battery door
3. Put the hearing aid into the case

\*\* Change the batteries approximately once per week (varies, depending on your hearing aid and the size of your battery).

\*\* Do not get the hearing aids or batteries wet.

\*\* Keep the hearing aids and batteries away from small pets and small children.

## **Daily Hearing Aid Reminders** *(FOR THOSE WITH RECHARGEABLE BATTERY SYSTEMS)*

### **In the Morning**

1. Remove the hearing aid from the case
2. Put it OVER the top of your ear
3. Push the Dome into your Ear
4. Check your ears in a Mirror

### **At Night**

1. Remove the aid from your Ear
2. Put the hearing aid into the case
3. Look for a flashing green light

\*\* Do not get the hearing aids or charger wet. Keep them in a dry place, not the bathroom.

\*\* Plug in the charging unit to an outlet that is not able to be turned off with a light switch.

\*\* Keep the hearing aids away from small pets and small children.

## Batteries and Hearing Power Sources

For hearing instruments, most need batteries for power. There are few devices in this world that run on solar power. For the 99% of the rest of the hearing instruments need a battery power source.

There are normal batteries that would be replaced after a certain amount of days, and there are rechargeable battery options for hearing aids.

The standard batteries are **Zinc-Air batteries**.

- If you've ever seen them, they have a sticker on the top of the battery that needs to be removed before putting the battery in the hearing aids. Underneath that sticker are holes on the top of the battery that can now take in air. There is a chemical reaction within the battery once air is able to get in. The battery is now turned on.
- Wait 2 minutes before putting the battery into the hearing aid.
- The battery door is usually acting as your "on" / "off" switch. So, when you are not wearing the hearing aid, Open the battery door. This will save some of your battery life.
- The batteries will need to be changed every 4-10 days, depending your hearing device.

*Note: if you take the sticker off of the battery and do not put the battery into a hearing aid, it will still die in about 2 weeks.*

### **Rechargeable hearing aids:**

- Rechargeable hearing aids are helpful environmentally, but they also help ease the amount of care needed to keep the hearing aids working on a daily/weekly basis.
- For some people, it is difficult to see their battery and/or simply open their battery doors each night.
- Changing the batteries can also become difficult, if not impossible. If someone is frustrated and overwhelmed, they will not want to continue to want to try to work with their hearing aids. Also, if they cannot change their batteries, they could be faithfully wearing "dead" hearing aids that are now working like an earplug. We want compliance in daily wearing hearing aids to be good.
- There multiple types of rechargeable systems:
  - Nichel Metal Hydride (Power One Accu Plus 31mAh)
  - Silver-zinc (ZPower rechargeable system)
  - Lithion Ion (embedded into some hearing systems)

## Cleaning the Receiver / Changing Wax Guards

Start with good lighting.

Ask yourself:

- Does the opening that goes into the ear look clear?
  - If it looks blocked with yellow, brown, or orange something (not good)
    - You will need to try and remove it (see below)
  - If it looks like a black hole or you see a white grid (that's good)
- You need the right tools:
  - Cleaning loop and/or brush
  - Proper wax guards

If there is a dome covering the end of the receiver, carefully pull it off first.

Take your correct wax guard replacement kit:

- Put the instrument into the clogged wax guard
- Replace the receiver hole with a clean, new wax guard
- (watch the video and/or reach out to your audiologist for your specific wax guard type.)

If there is a dome

- Replace the dome correctly
- Be sure to try and gently pull it off, to check if it is on all the way.
- If it falls back off easily, push it on with more force
- If it does not come off, then you're finished!

REMEMBER:

If you are struggling with this, or the hearing aid still doesn't work, please call your audiologist.

Hearing can change at any time and you may need to have your hearing check and a new prescription put in your hearing aids if you are still struggling to hear after cleaning the devices.

### 3. Intermediate Module

#### Characteristics of someone in this module:

- The person is confident in wearing their hearing instrument(s), but would like more strategies on how to optimize use

#### Milestones:

- Are you hearing better with the hearing instrument(s) in quiet?
- Are you feeling more comfortable hearing in background noise?
- Start Aural Rehab Exercises

#### Action Items:

- Wear the hearing instrument(s) 10-12 hours per day.
- Listen to an audiobook (or ask someone to read aloud to you) for 30-60 minutes per day.
- In the beginning, try to use a written copy of the book to visual read while you listen
- Later, take away the visual reading along
- Listen to unfamiliar music
- Try watching tv without closed captioning for 10-15 minutes
- Participate in the FB Community and post a positive comment to help someone else along their journey

### Communication Tips

Here are some tips for how to best communicate with some:

1. Try to be within a good distance from the person you are speaking to.
  - a. An arms length away allows you to tap them on the shoulder. Then you are more likely to have their attention and you are close enough that they can see your face.
2. Make sure the lighting is good.
3. Turn down any background noise, like a radio or tv playing in the room.
4. Ask them, "Excuse me, do you have a moment?"
5. Give some cues on what the topic is that you want to talk about.
6. Ask yourself, "How can I improve this?" if you are struggling to hear someone, or be heard.
7. Make sure that you and the person you are talking to are present and ready to listen.

## Watching TV and Movies

Different types of shows are easier or harder to hear.

- The nightly news is easier to hear and understand
  - because the broadcasters are training to enunciate and look at the camera.
  - They also have supporting words and pictures on the screen.

REMEMBER: You can turn on Closed Captioning with the menu in your tv or some cable remotes have a CC button.

- Sitcoms can be difficult because you are an observer of someone else's life. The actors are not necessarily looking at the camera, there can be laughing in the background, and the dialogue can be fast.
  - You can turn on Closed Captioning with the menu in your tv or some cable remotes have a CC button.
- Movies can be difficult because of the background music and because the actors are not always looking at the camera, but the subtitles are well edited.
  - Prior to starting the movie on a DVD, choose English subtitles (or whatever language you choose) under the Setup menu
  - When watching a movie on Amazon Prime, Netflix, or Hulu, click on the Options menu, choose Audio & Subtitles, and click on the English [CC].

## Telephone Use

### Types of Phones:

- *Landline*
  - How to hold it
    - With custom, in the ear, hearing aids, a person holds the phone the regular way
    - With behind the ear hearing aids, a person needs to hold the phone a little bit further up, so that the speaker is sending the voice into the microphone of the hearing aid. The microphone in this style is up on top of the ear.
    - Louder, amplified options are available on the market
  - Captioned Phones
    - Live closed captioning while you listen
    - Hold the phone as stated above
    - Some have speaker phone capabilities
    - In the US: CapTel and Caption Call
- *Cellular Phone*
  - Hold it just like you would with a landline
  - Remember, if it seems quiet, check the volume of the call
    - The only way to turn up the volume of a call is to use the cell phone volume buttons WHILE IN AN ACTIVE CALL. (If you adjust the volume without being on a call, you are changing the volume of the phone's ringer.)
- *Streaming via Bluetooth*
  - Some hearing aids are able to send a phone call directly to a person's hearing aids without the need to hold the phone.
    - Ask your audiologist.
- *Speaker Phone capabilities are available on all types of devices:*
  - Landlines
  - In the car via car speaker bluetooth
  - On the cell phone
- Captioning apps on cell phones
- Video Calling
  - Facetime on Apple phones, computers, and iPads
    - Zoom- app on smart phones and computers
    - Skype- app on smart phones and computers
    - Google Hangouts - app on smart phones and computers

## Telecoils

Telecoils can help give a person direct audio input into their hearing aids. Some hearing aids have telecoils and some do not. You will need to ask your audiologist if yours does have the capabilities. If yours do, then they need to program your telecoil into your settings and instruct you on how and when to properly turn it on.

A telecoil is an induction system that connects the hearing aids to something. A telecoil can help someone with hearing aids hear better while talking on the telephone. Conventional phones with magnetic receiver. Cellular phones with a telecoil rating.

Public and private venues that are “Looped for the Hearing Impaired

### ***”Where can you use this hearing aid feature?”***

A telecoil can help someone who is attending a religious ceremony or performance that takes place in a large auditorium-like setting. In this case, there is usually a person or a select group of people who are using microphones at the front of an audience. In this case, a telecoil system can be connected the PA system.

If there is a section of the auditorium that is “looped” with a copper wire, then the person with a hearing aid that has a telecoil in it can sit within that loop, turn their hearing aid to their public telecoil program, and hear directly from the microphones of the person/people using the PA system microphones.

**What if the signal is too soft?** Make sure you have properly changed your hearing device to Telecoil mode then, use your volume control and turn it up. Lastly, speak to whomever is in charge of turning the PA system on

**What if the signal is too loud?** First use your volume control and turn it down. Lastly, speak to whomever is in charge of turning the PA system on.

If you are having difficulties, find an audiologist. They can help.

## **Remote Microphones**

There is something to discuss with your audiologist. There are so many makes and models of hearing aids and not all have this option. If yours does have this option, they can help you to choose the most appropriate one and set it up for you.



## 4. Advanced Module

### **Characteristics of someone in this module:**

- The person is confident in wearing their hearing instrument(s), but would like more strategies and tasks to help them optimize use even further.

### **Milestones:**

- Are you able to hear better than before while in background noise and groups?
- Do you have strategies for when you cannot clearly understand what someone is saying?
- Are you regularly following up with your hearing care provider?

### **Action Items:**

- Wear the hearing instruments during all waking hours
- Listen to Talk Radio, Audiobooks without paper and/or New Music at least 60 minutes per day.
- Try turning off the closed captioning for 30 minutes
- Go through the listening exercises.
- Participate in the Facebook Community and ask a burning question.

***If you haven't already, be sure to download the Hearing Wellness Journey Listening Exercises Workbook***

***In there, you will be able to follow along with your listening exercises.***

## 5. Expert Module

### **Characteristics of someone in this module:**

- This level is for the long-time hearing instrument user who is mastering their instrument use and who would like to start helping others and becoming an advocate for others with hearing loss.

### **Milestones:**

- Are you able to use strategies and/or assistive devices, such as a remote microphone or telecoils to improve listening in background noise?
- Do you know when it's time to update your prescription in your hearing devices?

### **Action Items:**

- Listen to stories or Talk Radio where the Narrator or Announcer speaks your language, but with a foreign accent
- Go through the listening exercises and challenge yourself.
- Volunteer to be a patient advocate in your community
- In the FB community, tell your story in writing or on video, so others can feel connected to another person who has a hearing loss

***If you haven't already, be sure to download the Hearing Wellness Journey Listening Exercises Workbook***

***In there, you will be able to follow along with your listening exercises.***