



# Traveling With Hearing Loss

Presenter:

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If you're a hard of hearing traveler...



you are not alone.

# HEARING LOSS STATISTICS

- There are 48 million Americans with measurable hearing loss.
- Only 1 out of 5 people who could benefit from wearing hearing aids actually wears them.

## **Hearing loss affects all age groups**

- 65% of people with hearing loss are under age 65.
- 15% of school age children have a measurable hearing loss.

SOURCE: Better Hearing Institute

In the field of transportation,  
communication access is beginning to  
become available at  
airports, train stations  
subways, buses, ferries and taxies  
through hearing loops and sigange.

# Examples of hearing loops in transportation



**Seattle city bus terminal information counter.**

**Entire fleet of Indian Trails buses looped.**

# Examples of hearing loops in transportation



New York City Taxi Cabs



# San Francisco BART



50 looped stations



1,081 looped train cars

# New York City subway



Over 600 NYC subway fair/information booths  
plus emergency call buttons on platforms





# New York City MTA

1000 looped  
subway cars



Loops being  
tested on buses



Information counters at  
all bus, train, and ferry  
terminals to  
be looped



# NEW Accessibility Requirements

**All new or significantly renovated airport terminals must have hearing loops at departure gates and at information counters.**



18 US airports  
now using loops



# Neckloops and airplanes



Virgin Atlantic now offers their international travel passengers a choice of ear buds or a NECKLOOP.



# Amtrak



83 “trainsets” (500 cars) on order with option  
for 800 more cars - all with loops

But....

basically, the burden is on us,  
our hearing aids and our  
determination to have good  
communication access when  
traveling.

# Hearing aids are most effective in 1 on 1 settings



Good directional mics have an effective hearing range of six feet or less

(Etymotic Research, 2000a)

# Hearing aid performance

- Limited effective range: 6-10 feet
- Only give back about 50% of decibels lost
- Make speech & background noise louder
- Speech to noise ratio not improved
- Temporal processing slower for seniors
- Ability to focus on one voice impaired

# Airport/Train/Bus Terminals

High ceilings,  
hard surfaces,  
open space,

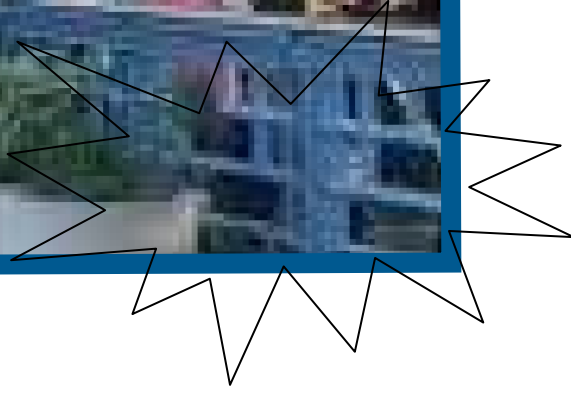


along with no  
sound barriers  
add up to...





**Adds up to NOISE that  
makes it extremely  
challenging to hear and  
understand.**



For help with  
communication  
problems,  
GET SMART!





Get yourself a

**SMART PHONE,**

then download  
some of the great

apps that are available to help you  
hear and stay connected...

# What's an APP ?

App is an abbreviated form of the word "application." An application is a software program that's designed to perform a specific function directly for the user or, in some cases, for another application program.



# Most Used App - Speech to Text



With Live Transcribe, you can see words appear on your Android phone as they're spoken.

**Live Transcribe** - transcribes spoken audio into text and also reports many of the background sounds you hear and how loud they are in relation to the speech it is transcribing.

**Speechy** - that converts speech to text and also translates that text into a different language.

**Rev** - this voice recorder transcribes your voice mails so you can save and read them and organize the recordings .

**YouMail** - best known as an option for blocking robocalls, it also offers a voicemail to text feature that is cloud-based.



# Other Smart Phone Apps For Travelers



Personal sound amplifier

Background noise reducer

TV watching

Alerting

Streaming

Foreign language translator

Quiet venues/restaurants

# Personal Sound Amplification Apps

A new take on an old favorite,  
the Williams Sound  
Pocket Talker



## Williams Sound PocketTalker



This device can fit in your pocket, palm (or hang from the included neck lanyard) and, using ear buds or a neckloop, it amplifies sounds in one-on-one settings, at a dinner table or other small group setting. \$185 plus cost of neckloop or as little as \$50 on Ebay.

## Williams Sound or other personal FM

A personal FM Listening System wirelessly connects you to a speaker wearing the transmitter or, using a conference mic, to others at a conference table. Range up to 150 feet.



Use with earphones, ear buds or neckloop. \$700 & up but watch for them on Ebay - can get for \$100 or less for the pair.

# Wireless Hearing Aid Accessories

All of the hearing aid brands have introduced wireless hearing aid accessories for different situations, such as TV streamers or remote microphones to give people a better ability to hear in noise. Generally, they work very well for the purpose they have been designed . Some work directly with hearing aids via Bluetooth® while others work with a neckloop and receiver. Cost can vary from a few hundred so several thousand dollars



# Where do you get these devices

[www.diglo.com](http://www.diglo.com) (formerly Harris Communications)

[www.amazon.com](http://www.amazon.com), [www.ebay.com](http://www.ebay.com)

or do a Google search by name

Your hearing care provider for their brand

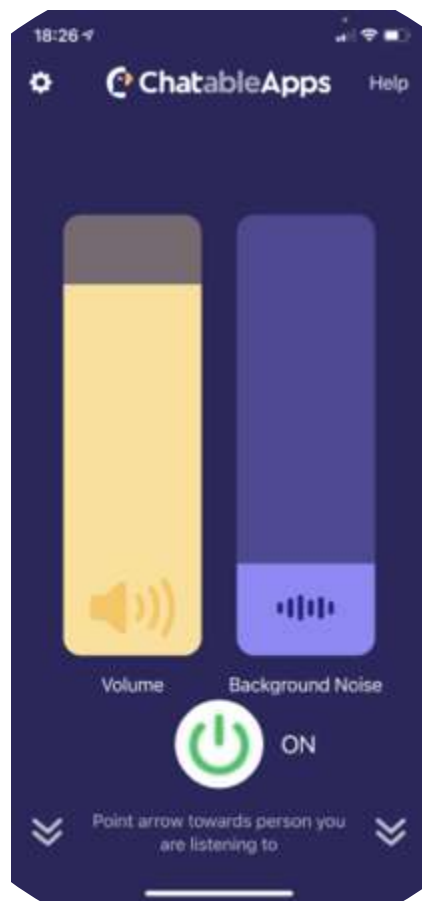


# PERSONAL SOUND AMPLIFICATION APP

Use Bluetooth<sup>®</sup>, a neckloop or earbuds and turn your smartphone into a “pocket talker” to amplify sounds you want to hear around you using Apple’s **EarMachine** or Google’s **Sound Amplifier**. In addition to volume control, both have a fine-tuning feature that lets the user control which frequencies get boosted, a little or a lot.



If using a neckloop, if it has an “L” shaped jack it may not make a connection if the phone is in a case.



# BACKGROUND NOISE ERASER

Using earbuds or a neckloop and the telecoil (T-coil) setting on hearing aids, **Chatable** can erase most of the background sound. It identifies the voice of the person speaking and creates a new audio signal that sounds almost identical to the original while it removes the background sounds.

# App for TV viewing



**Tunity** allows users to hear live audio from muted TVs. It identifies a live video stream and its exact timing, syncing the audio with the user's smart phone. Use it at bars, gyms, restaurants, waiting rooms, airports, and even at home.

Hear with your smartphone connected to hearing aids via Bluetooth or a neckloop/t-coil option. Point your smartphone's camera at the TV screen and Tunity will do the rest.

# Apps for safety alerts

**Sound Alert** hears the smoke alarm going off in another room when you don't. It will alert you via notifications, vibrations, and flashing lights on your smartphone or tablet when any pre-programmed sound goes off in the house such as a smoke alarm, the doorbell, etc.

**My SoS Family** connects to a "first responder" family and friends list that keeps them informed in an emergency. Contacts are alerted instantly via the app, not your phone. It calls and texts your emergency contacts using Apple's Find My Device feature.





# WiFi based streaming audio

Here's another free app that may interest the hearing as well as the hard of hearing. Streaming audio via WiFi is the latest entrant in the battle for assistive listening systems in public places.

**MYE Fitness Entertainment** is integrated into leading health club mobile apps. It may also be the app used in sports bars to hear the TV. To hear the audio, you can use Bluetooth or a neckloop connected to your smartphone.





# Foreign language translation apps

**iTranslate** enables travelers, students, business professionals, employers and medical staff to read, write and speak in over 100 languages, anywhere in the world.

Just start speaking and iTranslate recognizes your voice and translates to your desired language.

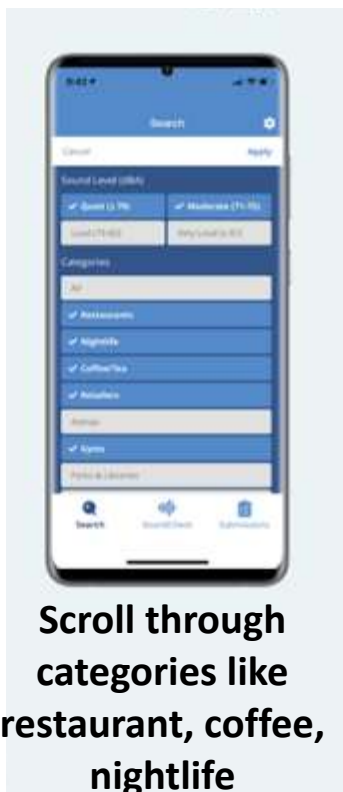


# Quiet Venues APP

**SoundPrint** is a free app available at Google Play and the App Store. It gives users access to the largest and only public database of sound levels taken at 100K+ venues worldwide. Easy to use, the app is a valuable tool to find quiet a restaurant, bar or cafe wherever you are area based on sound level. It also allows you to rate and review places based on their service and the sound levels you experienced.



## CHOOSE VENUE PARAMETERS



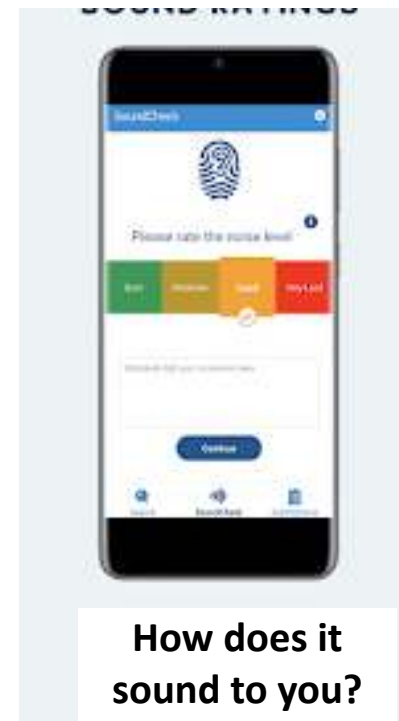
Scroll through categories like restaurant, coffee, nightlife

## MEASURE SOUND LEVEL



Measure sound level if your smartphone is compatible with reader

## SUBMIT SUBJECTIVE SOUND



How does it sound to you?



# Sound Level Meters

Big variety of sound level apps available for android and Apple phones. I use **Sound Meter**.

Disco, 1 m from speaker	100
Diesel truck, 10 m away	90
Kerbside of busy road, 5 m	80
Vacuum cleaner, distance 1 m	70
Conversational speech, 1 m	60
Average home	50
Quiet library	40
Quiet bedroom at night	30
Background in TV studio	20
Rustling leaves in the distance	10
<b>Hearing threshold</b>	<b>0</b>

To the human ear, a 10 dB increase in sound is twice as loud

# Where do you get these apps?

Android Phone: [www.play.google.com](http://www.play.google.com)

iPhone: [www.apple.com/app-store/](http://www.apple.com/app-store/)

# Tips and secrets for successful travel with hearing loss



# Preparing for travel

- Book hotel and other travel reservations and tickets online. You won't have to struggle to hear and understand a fast talking, accented agent and you'll receive email confirmations that give you a written record or just what arrangements you've made.
- If you have a smart phone, download a speech to text app to help communicating with ticket agents and others during travel when hearing them is difficult.
- If you have telecoil equipped hearing aids, take a neckloop along (buy one if you don't already have one) and download the Sound Amplifier app at Google Play or a similar Apple app. It will turn your smart phone into a pocket talker for added flexibility in talking with others.



- Sign up to have flight delays or gate changes sent to you as text messages instead of phone calls or emails.
- Download a captioned phone app such as the one from [www.HamiltonCapTel.com](http://www.HamiltonCapTel.com) so you will have captioned phone access during your trip for both placing and receiving calls.
- Batteries may be hard to find after you arrive at your destination and your many devices need power to work so be sure to take along fresh batteries for each of them. Check also that all your chargers are working well and bring an extra if available.
- Should you have one, pack an extra set of hearing aids for the trip.

- If your hearing aids are rechargeable, be sure to take the charger and put it in your carry-on in case your checked luggage doesn't arrive with you. If the batteries are not "built in", take a pair of extra batteries in case a battery fails during your trip. There are small, almost credit card sized portable chargers available for most rechargeable hearing aid batteries from: [www.Powerone-batteries.com](http://www.Powerone-batteries.com)
- Take a pen and notepad with you to communicate with ticket/gate agents if needed.
- Download the SoundPrint app( [www.soundprint.co/](http://www.soundprint.co/) ) for its Quiet List that identifies restaurants and bars in U.S. and foreign cities that are less noisy and more conducive to conversation.





- Print your ticket and boarding pass at home. Also send it to your smart phone in case your paper copies get lost.
- Apply for a Transportation Security Administration (TSA) Notification Card about your hearing condition - get one at:

[www.tsa.gov/travel/special-procedures](http://www.tsa.gov/travel/special-procedures)

- Also consider signing up for TSA PreCheck®. It allows you to go to a special PreCheck line for a quick and easy security screening. Apply at:

[www.tsa.gov/precheck](http://www.tsa.gov/precheck)

# At the airport

- Show your TSA Notification Card to the agent at the security check-in to facilitate communication. It might even get you moved over to an express type line.
- Take a seat near the agent's counter at the gate and alert the attendant to your hearing loss. Request that you be personally notified of any emergency or other announcements. Often the agent will add you to the group allowed to preboard.
- Have your smart phone handy to use as a pocket-talker via a neckloop or Bluetooth®.
- As you board the aircraft, alert the flight attendant(s) to your hearing loss so they will know to pay attention to your communication needs.

# On the aircraft

- Read the safety instructions in the pocket in front of you—you will probably have difficulty hearing the verbal instructions from the flight crew.
- In the event you're on a long flight where music or other entertainment is offered, keep your neckloop accessible – it will plug into the sound on most aircraft and provide you with better quality sound than the ear buds handed out by the airline.
- You do not need to turn off your hearing aids or CI on the aircraft (but you can - to reduce the roar if you find it



# Train or bus travel

If traveling by train or bus, most transportation companies offer smartphone apps to give you access to timetables, provide alerts for gate changes or delays. Familiarize yourself with these and any other apps in advance so you don't have to learn their operation under pressure.



# At your hotel

- Once you reach your destination, if staying in a hotel, alert the desk clerk to your hearing difficulty.
- Have the documents and identification you will need ready to show at the desk either in printed form or on your smartphone to help speed up check in.
- Keep voice communication limited to avoid some things being repeated or any misunderstanding.
- Use the speech to text or personal amplifier app in your smart phone to communicate with the desk clerk.

# At your hotel

When checking in, if needed, request an **ADA Hard of Hearing Kit**. It will include such items as:

- An alarm clock with extra loud signaler,
- A bed shaker and built-in flashing strobe light to alert you if the alarm clock goes off, the phone rings, someone knocks on the hotel door, or if a smoke/carbon monoxide alarm goes off in the room.



- It could also have a Telephone In-Line Handset Amplifier that plugs into the hotel room's existing room telephone line amplify all callers,

# Out and about

- Advocate for yourself. Let your tour guides and fellow travelers know about your hearing loss and provide specific suggestions on how they can help you hear your best.
- If requested, many tours offer assistive listening devices so you can hear the docent or tour guide even when you're not right close by, so make such a request. If the device offered comes with earbuds or earphones, check to see if you can connect your own personal neckloop into it instead.

That way you'll hear ambient sound that would otherwise be masked by the earphones and you'll escape the danger or damage or loss with your hearing aids.

- Many theaters, concert halls and places of worship also have such systems so, if not offered, ask about their assistive listening provisions before your visit or when you arrive at the venue.

## Best loop finding sites:

<https://time2loopamerica.com/loop-locator/>

<https://www.loopfinder.com/>



# Best loop finding sites:

<https://time2loopamerica.com/loop-locator/>

<https://www.loopfinder.com/>

<https://www.hearingloss.org/chapters-state-orgs/find-a-chapter/>

# MORE RESOURCES FOR INFORMATION

Especially for hearing loop info:

[www.hearingloss.org](http://www.hearingloss.org)

[www.hearingloop.org](http://www.hearingloop.org)

[www.sofnabq.com](http://www.sofnabq.com)

[www.loopnm.com](http://www.loopnm.com)

[www.ampetronic.com](http://www.ampetronic.com)

[www.contactainc.com](http://www.contactainc.com)



# Look for this symbol

In major US cities (and especially in Europe and Australasia) look for the international ear symbol for telecoil accessible transportation and tourist and other sites and services.



In case you thought I was never going to stop...





Thank you for attending my

# Traveling With Hearing Loss

Workshop.

Stephen O. Frazier, Hearing Loss Support Specialist

[www.sofnabq.com](http://www.sofnabq.com)

