

EDUCATING YOUR SMARTPHONE

Presenter
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Today's hearing aids are truly remarkable.

Mine will let me:

Focus the mics

Set mic volume differently

Tone control

Reduce background sounds

Phone hands free

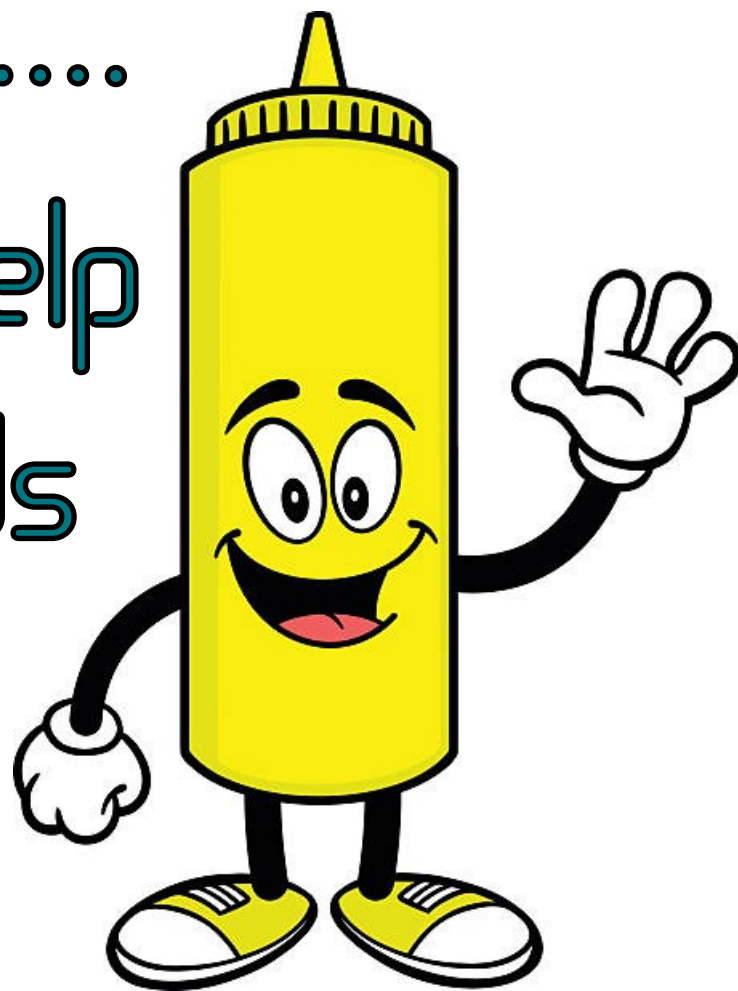
Alert with a fall

Face to face with Audie.

Run self check of aids

But....

we need other help
when hearing aids
alone just can't
cut the mustard.



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
- Make speech & background noise louder
- Speech to noise ratio not improved
- Temporal processing slower for seniors
- Ability to focus on one voice impaired

GET SMART !

Maxwell Smart and his
shoe phone circa 1970





Get yourself a

SMARTPHONE,

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.



With a neckloop and Bluetooth®,
and several apps, my phone
is much smarter than me!

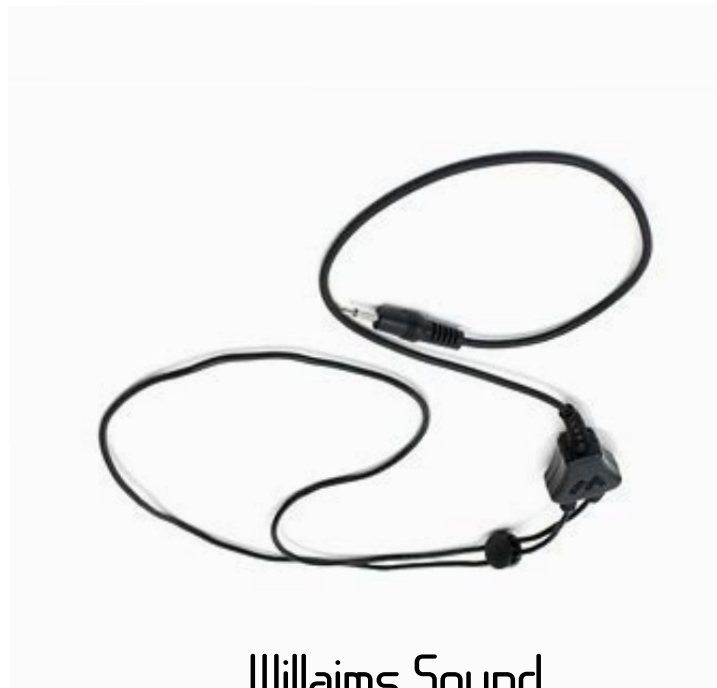


A FEW WORDS ABOUT NECKLOOPS

They're not all the same



Geemark



Willaims Sound



Amplicom



Where do you get these devices

www.diglo.com (formerly Harris Communications)

www.teltex.com, www.amazon.com,

www.ebay.com,

or do a Google search by name

My Super Educated Phone can

Lock/Unlock the door

Water the plants

Check my heart rate

Adjust my hearing aids

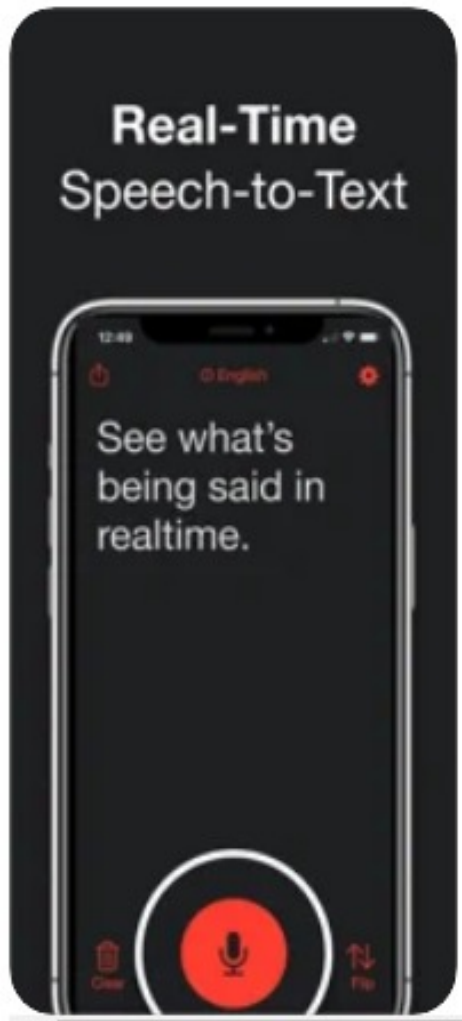
Take sound readings

Report noisy restaurants

Read what Dr. Bond says



Most Used App - Speech to Text



Live Transcribe - Android - 3.7 - FREE : 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.

Live Transcribe - iPhone - 4.6 - Free but fee for monthly use: Transcribes spoken audio into text. Save transcripts to any note taking app on your phone and also send transcripts through any message app on your phone

YouMail - Android or iPhone - 4.4 - FREE/Adds: best known as an option for blocking robocalls, it can also block any phone number with your own personal blacklist. Save calls and voicemail forever in custom folders to stay organize and it also offers a voicemail to text feature that is cloud-based.

Most Used App – Live Transcribe



- Transcribes in real time. Text appears on your phone as words are spoken.
- Accurately captures the nuances of how words are used in context.
- Choose from over 80 languages and dialects, and quickly switch between two languages.
- Add custom words that you use frequently names or places
- Set your phone to vibrate when someone says your name.
- See the volume of the speaker's voice compared to the loudness in your environment.
- Use external microphones for better audio reception.
- Choose to save transcriptions for three days so that you can copy and paste them elsewhere. (By default, transcriptions are not saved.)
- Search within saved transcriptions.
- Touch and hold text in transcription to copy and paste.

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 APP

Use Bluetooth®, a neckloop or earbuds and turn your smartphone into a “pocket talker” to amplify sounds you want to hear around you. Try 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.
- Best to get an amplified neckloop.

EAR SCOUT

Super Hearing



Android - 4.4 - Free

Pair your phone with Bluetooth HAs or plug in a neckloop or ear buds.

- Click on the center button and you can hear what your phone's microphone is picking up.
- It's also possible to set up a noise-trigger for audio recordings and have them sent to your email.
- Whether you want to monitor your environment, hear the TV and conversations better or just listen to birds singing, this app works.

EQUALIZER and VOLUME CONTROL



To avoid feedback, connect earphones, neckloop or Bluetooth hearing aids first:

SAFETY FEATURE. After starting the app the volume increases gently to the set level. This way you have time to adjust to high gain settings from the previous sessions.

Ear Scout amplifies sound coming through your phone's microphone straight to your earphones or neckloop (direct mic-to-headphones audio routing). To fine-tune the incoming signal, use the audio equalizer.

Nearby sound VERY loud when focusing on distant sounds.

CONSIDERABLE LATENCY USING BLUETOOTH

AmiHear - Android - 3.8 - Free



“A perfect app for hearing impaired people who do not want to use prescription hearing aids!”

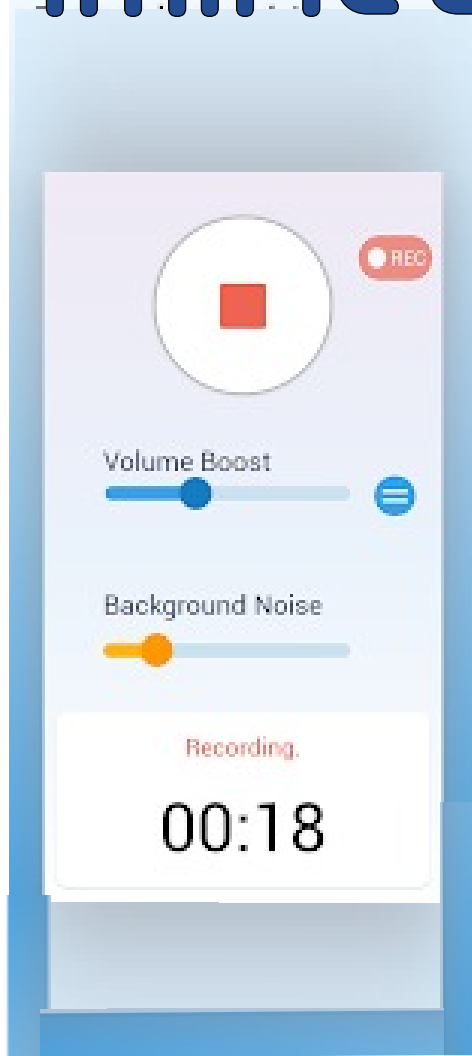
AmiHear turns your headphones into hearing aids and provides unlimited recording that hearing aids can not provide. Using your phone's microphone to pick up sound, AmiHear can denoise, amplify and record sound around you simultaneously.

“Worry about social distance? No Problem. By using Bluetooth headphones with AmiHear, you can hear clearly even 30ft (10M) away from speaker.”

Patented Noise Suppression Algorithm- eliminates background noise, increases speech intelligibility.

HAS CONSIDERABLE LATENCY WITH BLUETOOTH®

AmiHear



- Volume control
- Unlimited smart recorder
- Hearing assistant in three modes: Indoor, Outdoor, HearThru
- Automatic Gain Control (AGC) without over-amplifying loud sounds for ear protection
- Wind noise removal
- Hearing Equalizer: Adjust treble, middle and bass tones to your preference

EarMachine - iPhone - 3.3 - Free

Useful in situations ranging from talking in noisy restaurants to watching television at home.

Contains a recommendation engine called EarShare that will listen to the sounds around you and use that information to recommend wheel positions.

The signal processing is similar to that used in hearing aids. A wide-dynamic range multiband compressor ensures that quiet sounds are amplified, while protecting you from loud sounds. Other technology provides further loud sounds protection and ensures that steady sounds like a refrigerator hum is removed.





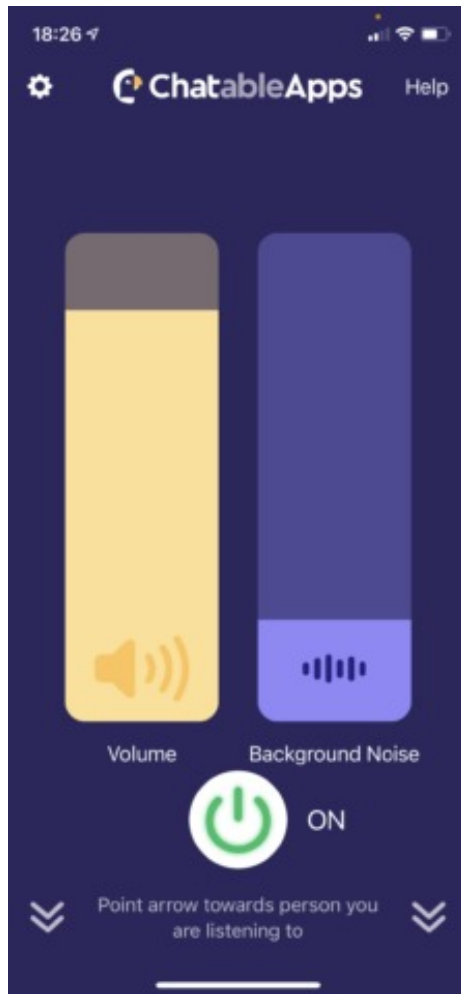
MOST EFFECTIVE USE AS A PERSONAL SOUND AMPLIFIER

IF USING BLUETOOTH

Give to person talking to you
Place near TV or other sound source

IF USING WITH NECKLOOP

Have long cord for neckloop
or
Have long cord mic/phone



BACKGROUND NOISE ERASER

Chatable - iPhone, 4.7 - Android, 3.1
Free trial

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.

CHARGE AFTER TRIAL PERIOD

App for TV viewing

Tunity - 1.3 - Free one week trial then

\$2.99 monthly charge



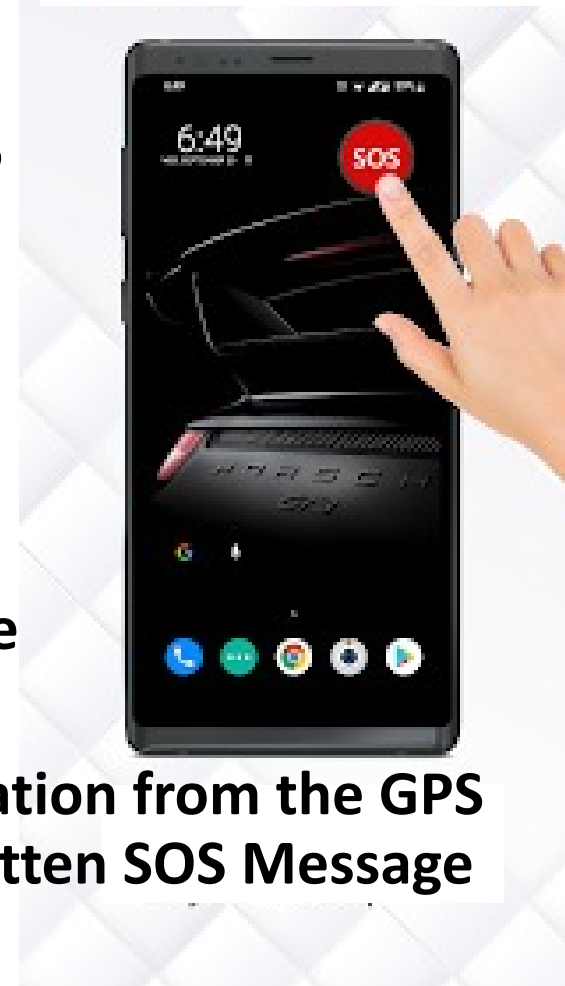
Tunity allows users to hear live audio from muted TVs. It identifies a live video stream and its exact timing, syncing the audio with the user's smart phone. Use it at bars, gyms, restaurants, waiting rooms, airports, and even at home.

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.

SOS Alert - Android - 4.6 Free NO ADS

In an emergency, you press the SOS Widget

- A link of your current location on Google Maps is sent to your emergency contacts .
- 2. As soon as you press the button/widget, a countdown starts giving you 3 seconds to cancel the SOS Alert before it is sent.
- When the countdown ends, the app finds your location from the GPS on your phone and sends your location and pre-written SOS Message to the emergency contacts listed in the app.
- The emergency contacts receive your SOS Message and Google map location as a text message.
- You can edit the SOS Message and add other useful information.

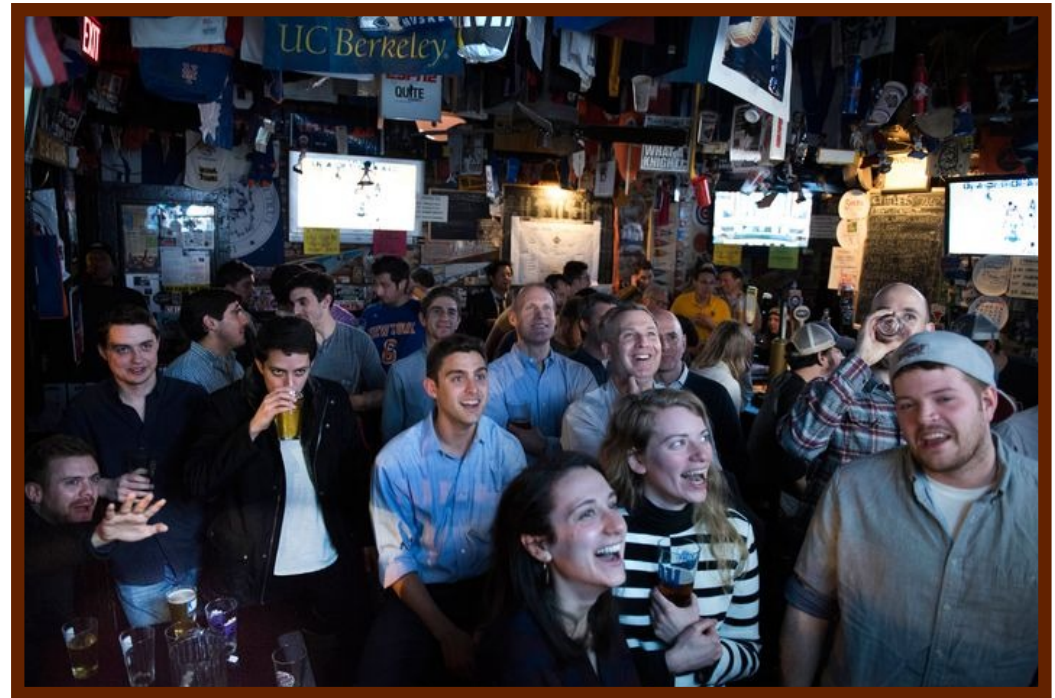


WiFi based streaming audio

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 AppAudio- iPhone & Android
Rated 2.8 Free**

This app is often integrated into leading health club mobile apps. It is also used in sports bars and other venues to hear the TV. To hear the audio, you can use Bluetooth or a neckloop connected to your smartphone.





Foreign language translation apps

iTranslate - iPhone, Android 3.9
Basic free

iTranslate is the leading free translator and dictionary app. Easily translate text or start voice-to-voice conversations in over 100 languages. New Offline Mode allows you to translate abroad without having to pay roaming charges.



Google Translate

Android, iPhone - 4.5 - Free

Translate between 108 languages

- **Transcribe:** Continuously translate someone speaking a different language in near real-time (8 languages).
- **Conversations:** Translate bilingual conversations on the fly (70 languages).
- **Instant camera translation:** Translate text in images instantly by just pointing your camera (94 languages).
- **Tap to Translate:** Copy text in any app and tap the Google Translate icon to translate (all languages).



- **Text translation: Translate between 108 languages by typing.**
- **Photos: Take or import photos for higher quality translations (90 languages).**
- **Handwriting: Draw text characters instead of typing (96 languages).**
- **Phrasebook: Star and save translated words and phrases for future reference (all languages).**
- **Cross-device syncing: Login to sync phrasebook between app and desktop.**
- **Transcribe: Continuously translate someone speaking a different language in near real-time (8 languages).**

iPhone - 4.5

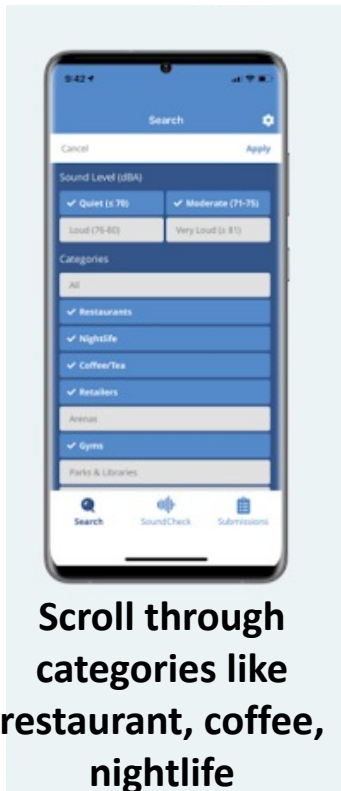
Android - 2.4



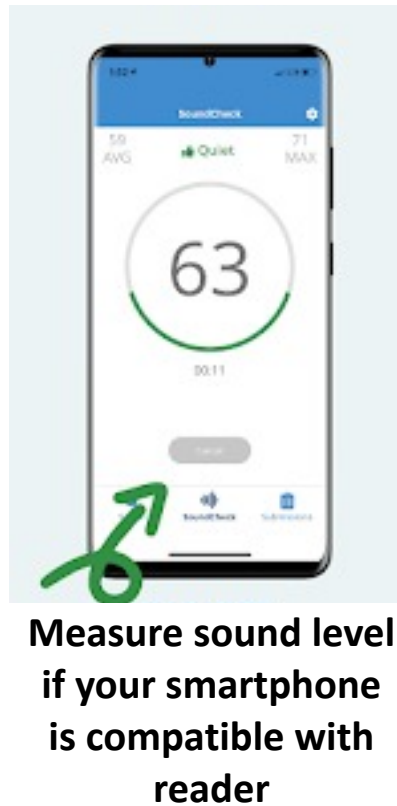
Sound Print, a quiet venues app

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 a quiet 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.

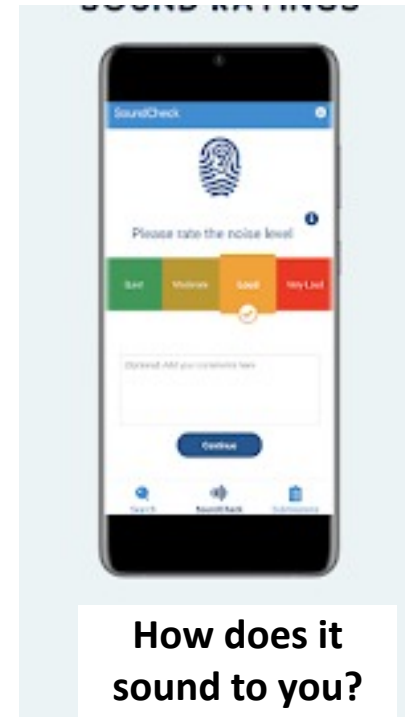
CHOOSE VENUE PARAMETERS



MEASURE SOUND LEVEL



SUBMIT SUBJECTIVE SOUND





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
Hearing threshold	0

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



WHAT WILL THE NOISE METER TELL YOU?

- Loudest sounds being heard.
- Average sound level over a given period of time.*
- Whether sound level endangers your hearing.

The National Institute for Occupational Safety and Health (NIOSH)

2 hours 91 dBA

1 hour 94 dBA

30 minutes 97

15 minutes 100 dB

*Sound level should be at least no more than 50 dBA for a hard of hearing

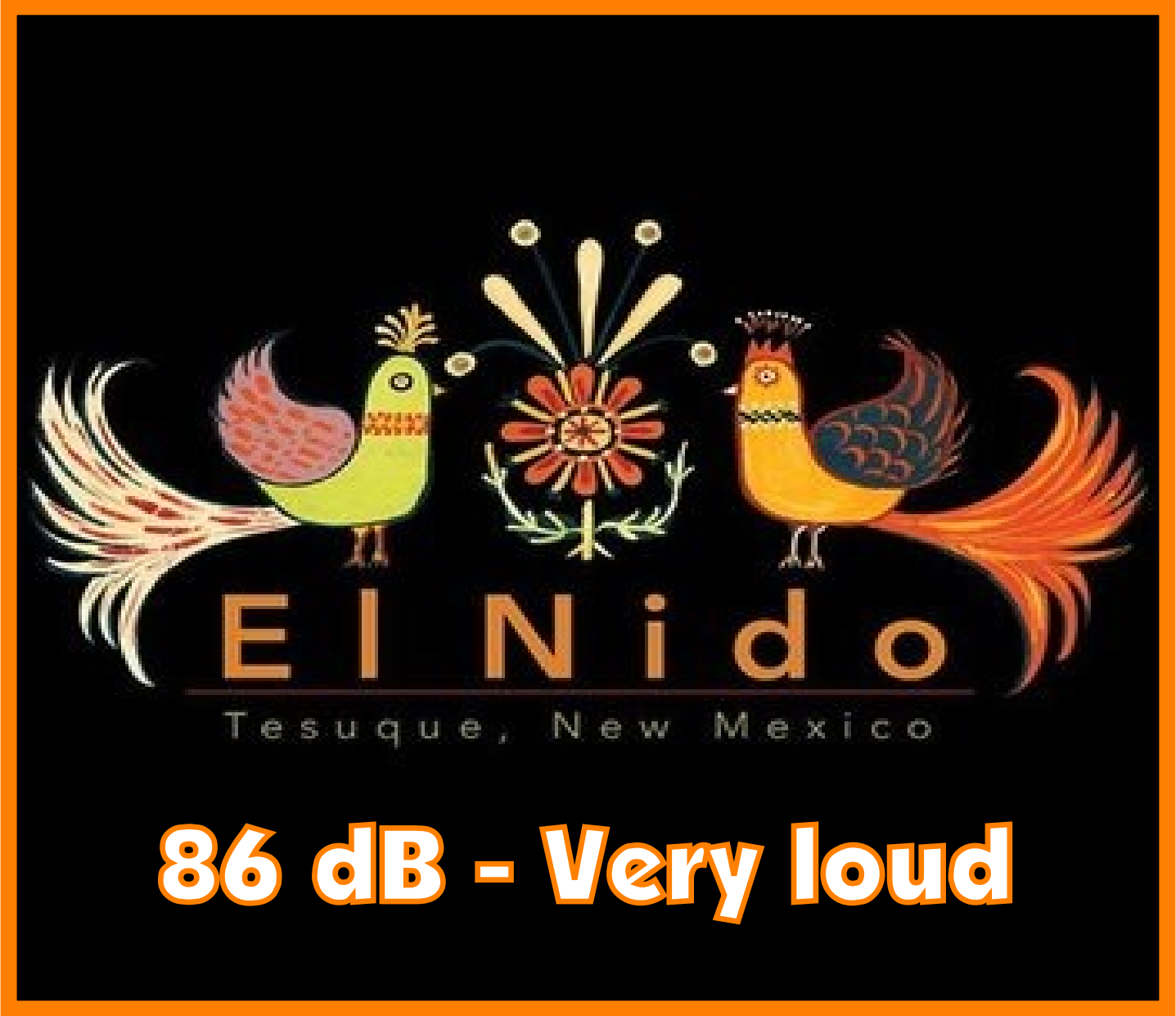


CAVEATS FOR SOUND PRESSURE LEVEL METER

- **Typical phone mic limited to 30-96 dB range so very loud sounds (over ~96 dB) may not be recognized (human voice range when speaking normally is in 40-60 dB range).**
- **Automatic gain control used in some phones may interfere with the operation of noise meter.**
- **Meter should be calibrated before use for somewhat accurate readings. Use an actual sound pressure level meter (SPL meter) to adjust decibels error as close as possible before use.**
- **If no access to actual Sound Pressure Level Meter (SPL meter), go to a very quiet place where sound cannot be heard and adjust the reading value to 20~30dB.**



Del Charro
Inn of the Governors
72 dB - Moderate



86 dB - Very loud



Some Santa Fe Restaurants

LOUDEST

Tiny's Restaurant - 86dB

LaChoza - 85 dB

Dr. Field Good - 82 dB

Paloma - 82 dB

Thunderbird Grill - 81

Radish & Rye - 81 dB

QUIETEST

La Fogata Grill - 56 dB

India House - 60 dB

Maize - 61

Restaurant Martin - 63

Santacafe - 65

Terracotta Bistro -67

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 contacta using Apple's Find My Device feature.

Where do you get these apps?

Android Phone: www.play.google.com

iPhone: www.apple.com/app-store/

or

Type in the name of the app in a search engine



Other “smart” technology
you can pair with smart
hearing aids.

Remote mics with telecoil



Starkey Remote Mic+



Widex Sound Assist



Oticon Edumic

Use **GOOGLE** MAPS and smartphone to find looped venues.



← THE OLD CHURCH CORRALES 🔍 ✕

Overview

Reviews

About

Accessibility

✓ Assistive hearing loop

✓ Wheelchair accessible
entrance

✓ Wheelchair accessible
parking lot

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. **TELECOIL COMING**

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.

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



Thank you for attending this

Educating your smartphone

Workshop.

Stephen O. Frazier, Hearing Loss Support Specialist

www.sofnabq.com