

HEARING SOLUTIONS SIG

Sun City Texas Computer Club

February 13, 2020

**Computer Club Membership entitles you to attend any
Club Special Interest Group.**

IMPORTANT ANNOUNCEMENT

**In order to sign in for any Computer Club event,
You **MUST**
use your Sun City resident ID number
Beginning March 1, 2020.**

Sun City Texas Computer Club



When Hearing Aids Aren't Enough

Understanding hearing loss, induction loops, and hearing aid accessories.

Hunter Gerhart, Au.D

Shawn Clark, BC-HIS

Jackie Cooper, H.I.S



WELCOME!

Our Team

Our mission is to serve our patients' needs better than anyone else in the hearing healthcare industry. Meet our team of dedicated hearing specialists available to serve you!



SHAWN CLARK

BC-HIS
Board Certified in Hearing Instrument Sciences



HUNTER GERHART

Au.D, CCC-A, ABA, FAAA, BC-HIS
Doctor of Audiology



JACKIE COOPER

HIS
Hearing Instrument Specialist

You and Hearing Loss Tell me...



- 1 A personal experience with hearing loss
- 2 Something you already know about hearing loss
- 3 Something you **absolutely** want to learn today

Today's Program



1

How We Hear

2

Effects of Untreated Hearing Loss

3

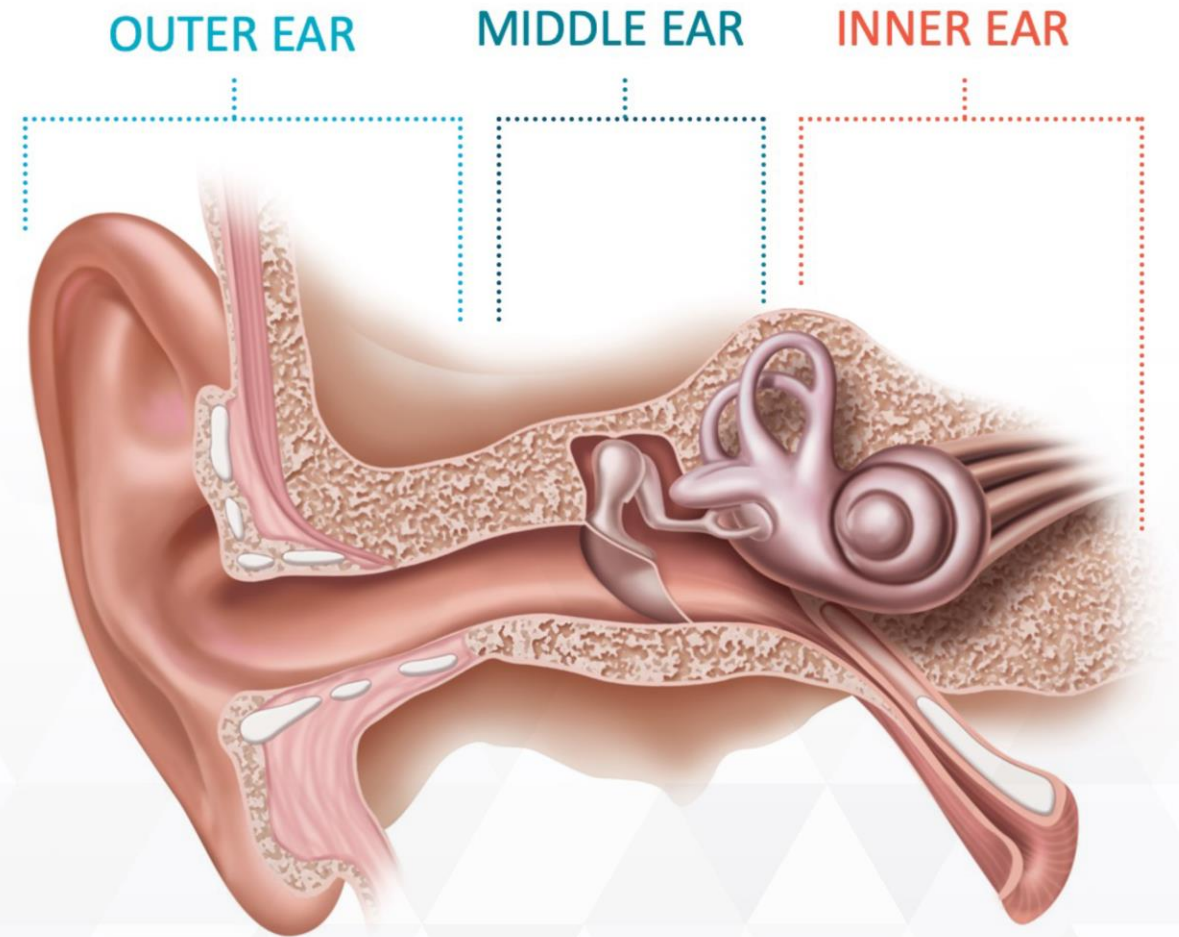
Amplification

4

Hearing Assistive Technology (HAT)

HOW WE HEAR

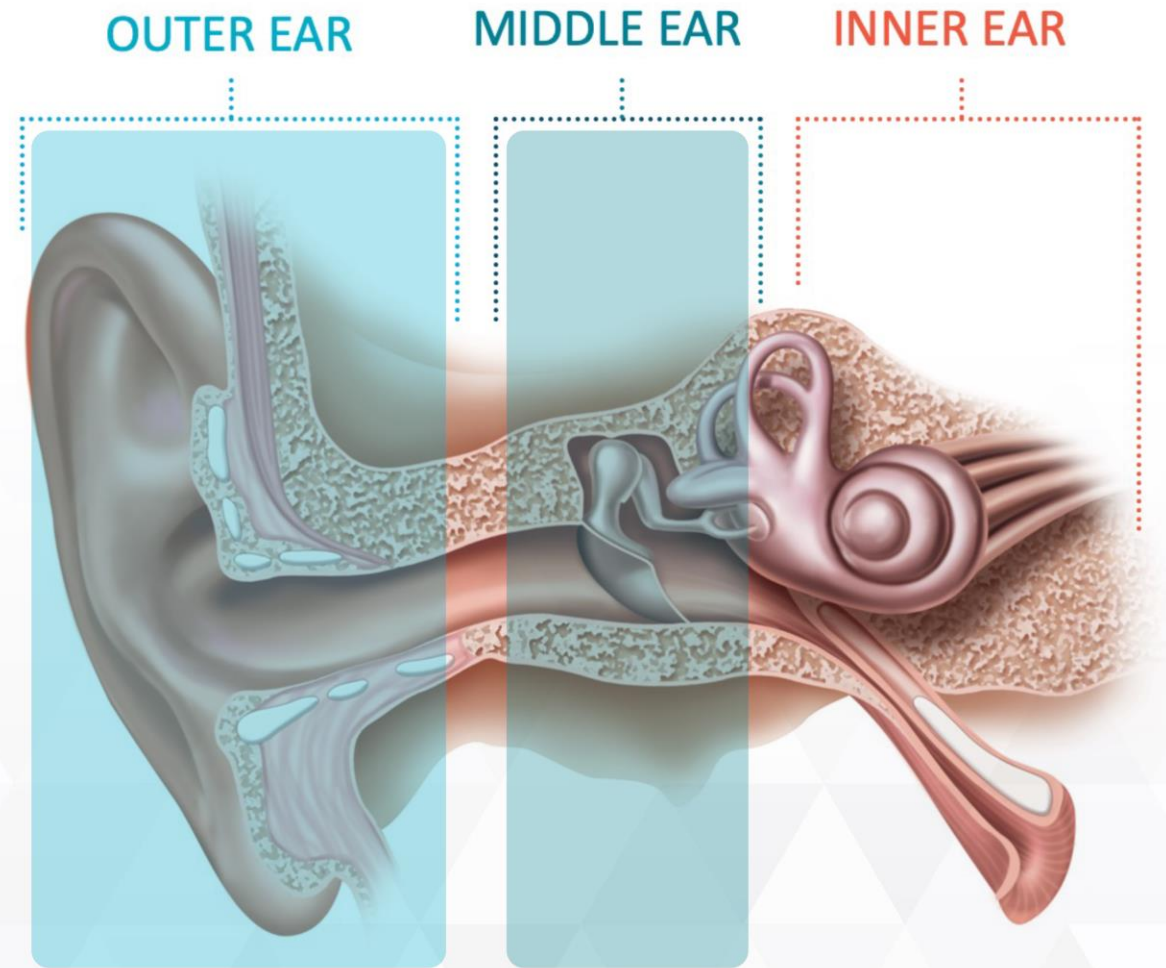
Types of Hearing Loss



Conductive Hearing Loss

Caused by damage to the outer or middle ear.

Can often be reversed or improved through medical treatment.

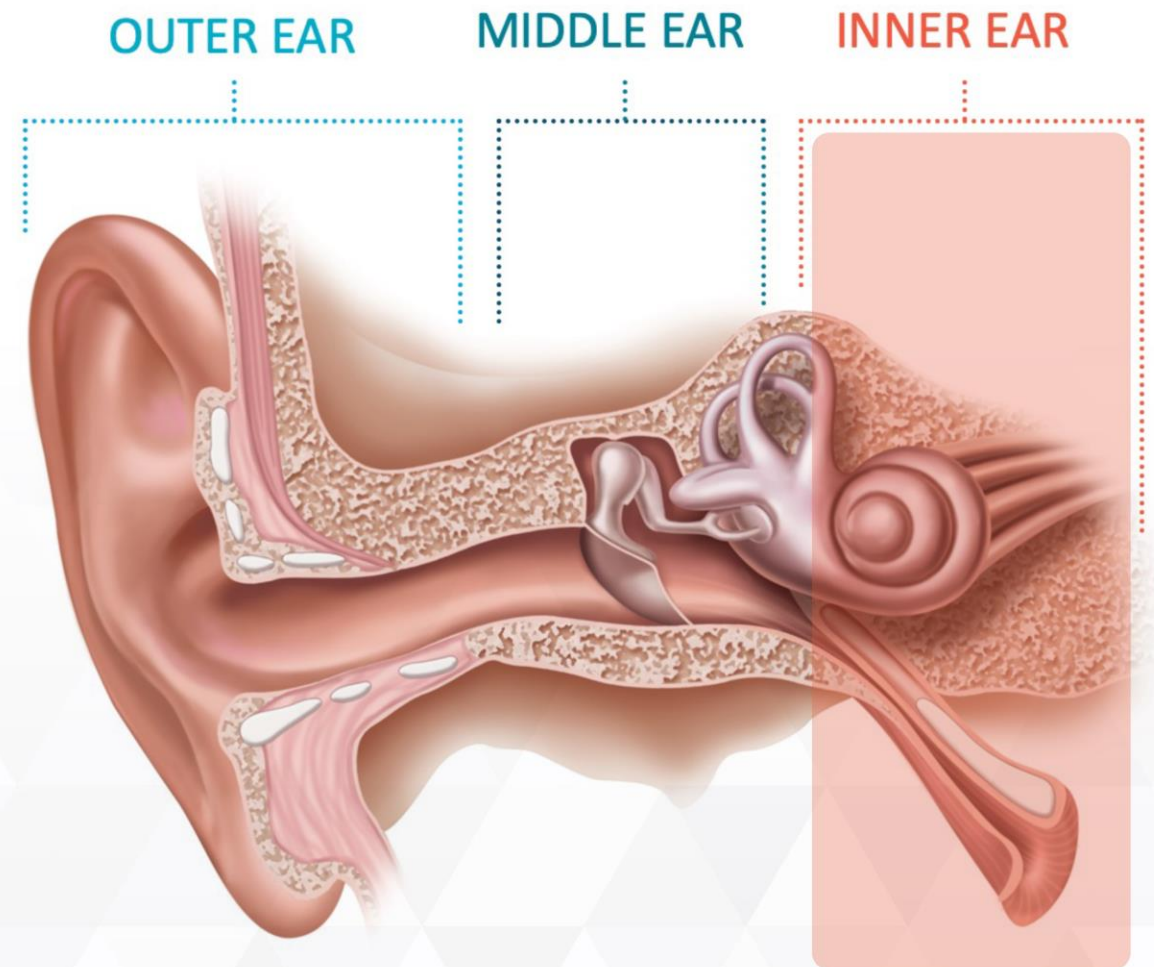


Sensorineural Hearing Loss

Caused by damage or disease to the inner ear or hearing nerve.

Typically permanent hearing loss.

Can be treated with amplification.



EFFECTS OF UNTREATED HEARING LOSS

**Men are
2X more likely**

to have hearing loss

1-in-6 Children

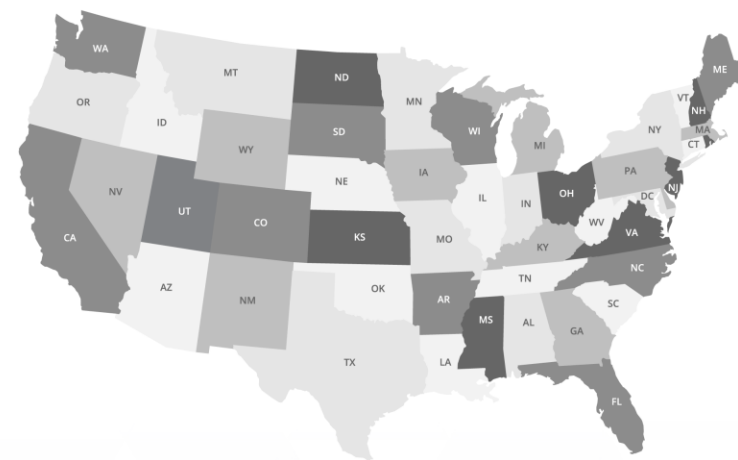
in the US has Hearing Loss

Due to Noise Exposure

**Age is Strong Predictor
of Hearing Loss**



The greatest percentage
of hearing loss is adults
60-69 years old



**45 Million Americans
struggle with Tinnitus**

30 Million US Adults could benefit from hearing aids
Nearly 15 % of the population

Common Causes of Hearing Loss



Noise Exposure



Trauma



Aging



Infection / Illness



Genetics



Medications



Effects of Untreated Hearing Loss

Fatigue

Tension

Negativism & Stress

Anger & Irritability

Avoidance or Withdrawal
from Social Situations

Social Rejection and
Embarrassment

Loneliness





Did you know that
your **hearing health**
has a direct effect on
your **overall health**?



Dementia

Seniors with hearing loss are significantly more likely to develop dementia than those who retain their hearing.



Tinnitus

Up to 90% of people with tinnitus have some level of noise-induced hearing loss.



Hypertension

High blood pressure can be an accelerating factor of hearing loss in adults.



Obesity

Higher body mass index (BMI) and larger waist circumference are associated with increased risk of hearing loss in women.



Smoking

Current smokers have a 70% higher risk of having hearing loss than nonsmokers.



Ototoxicity

200+ medications may be harmful to ears.



Safety/Balance

People with mild hearing loss are 3x more likely to have a history with falling.



Cardiovascular Disease

People with low-frequency hearing loss are considered at risk for cardiovascular events.



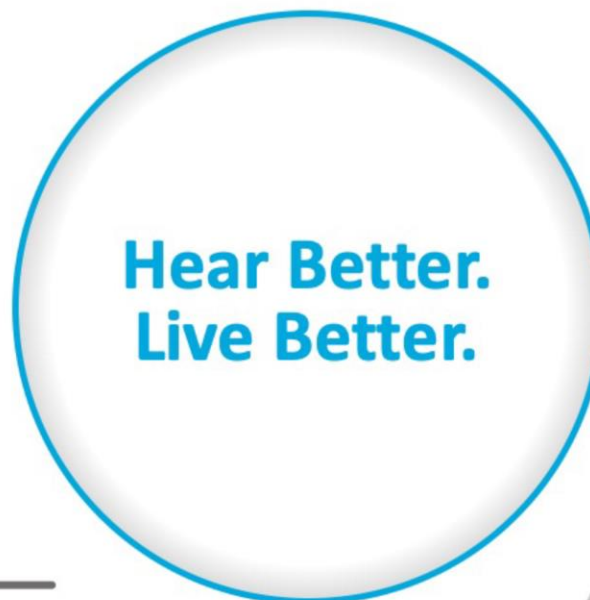
Diabetes

Hearing loss is twice as common in people with diabetes as their peers without.



Isolation

Untreated hearing loss can contribute to social isolation, anxiety, depression and cognitive decline.



The background is a dark blue field composed of numerous overlapping, semi-transparent geometric shapes, primarily triangles and polygons, creating a complex, low-poly pattern. The word "AMPLIFICATION" is centered horizontally and vertically in a bold, white, sans-serif typeface.

AMPLIFICATION

Hearing Aid Styles



Over the Ear



Custom



Invisible-in-the-Canal

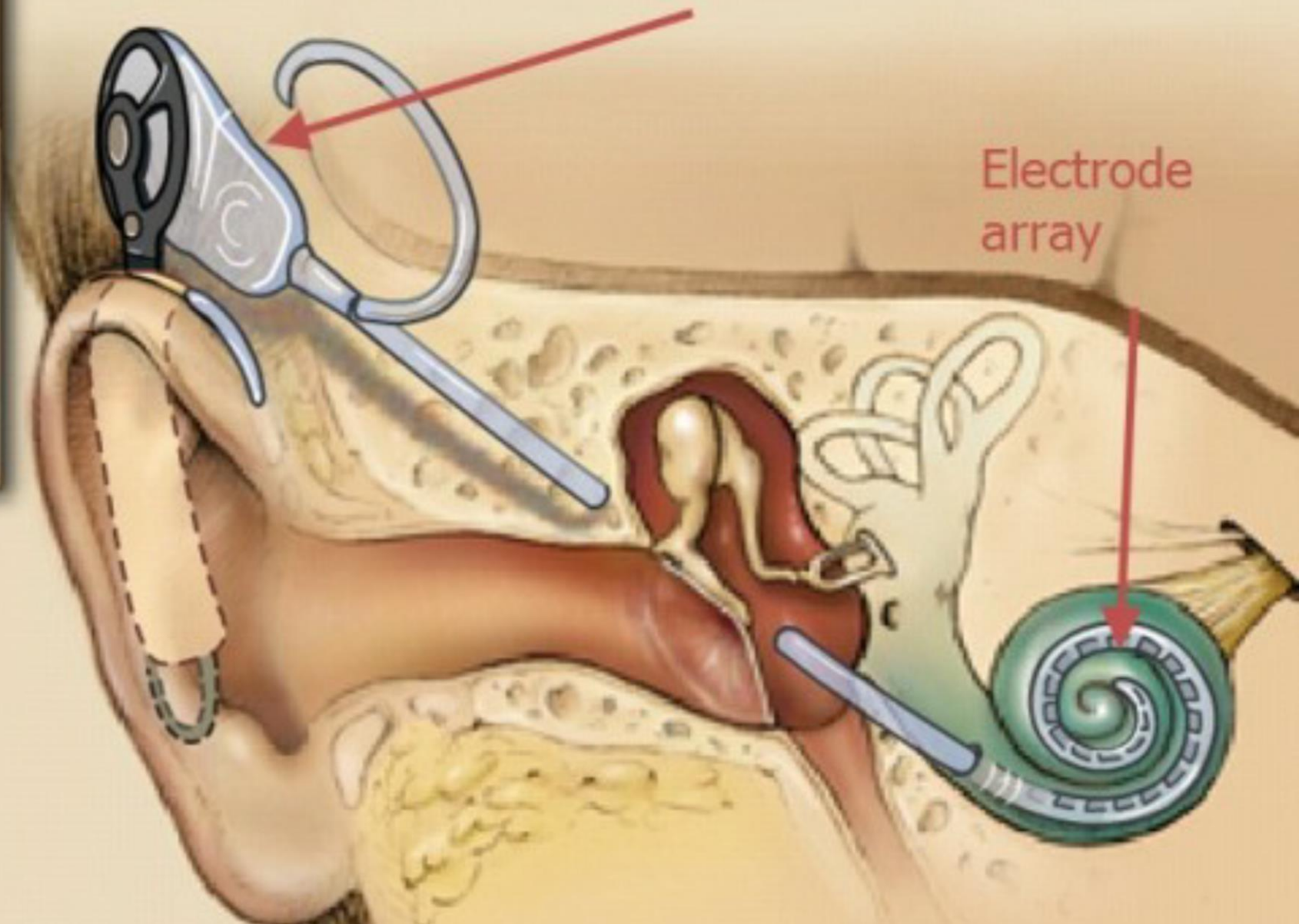


Cochlear Implant

Transmitter



Receiver/Stimulator



Electrode
array

Speech processor
& microphone

Gain Feedback Cancellation Tinnitus Sound Masking Input

Compression Frequency Lowering e-STAT fitting formula

Auto Acclimatization Directional Microphones Unique Memory Settings

What goes on inside a hearing aid?

Artificial Intelligence Telecoil Dedicated Music Memory

Sensors Customize Memories Auto Music Enhancement

Dedicated Streaming Memory Output Wireless Connectivity

Noise Management Data Log of Information Ear to Ear Communication

Hearing Reality

Manages the layers of sound in the environment

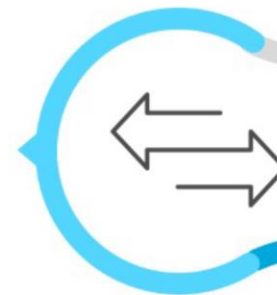


Categorize
the world



Eliminate
annoyance.
Enhance speech.
Enjoy epic
sound quality.

Immediate
and
seamless
transitions



Personalized
for every
preference



Smartphone Connectivity

Apple

iOS 11 or higher



Android

Operating system 6.0 or higher



- Stream Phone Calls and Audio*
- Remote Control
- Find My Hearing Aids
- Noise Control
- And much more

*Select Android phones



Tracking Body Health



Steps

Steps per day



Activity

Minutes of exercise — brisk, walking pace, or faster



Move

Continuous movement for at least one minute in a one hour period



Tracking Brain Health



Use Time

12 hour wear time per day



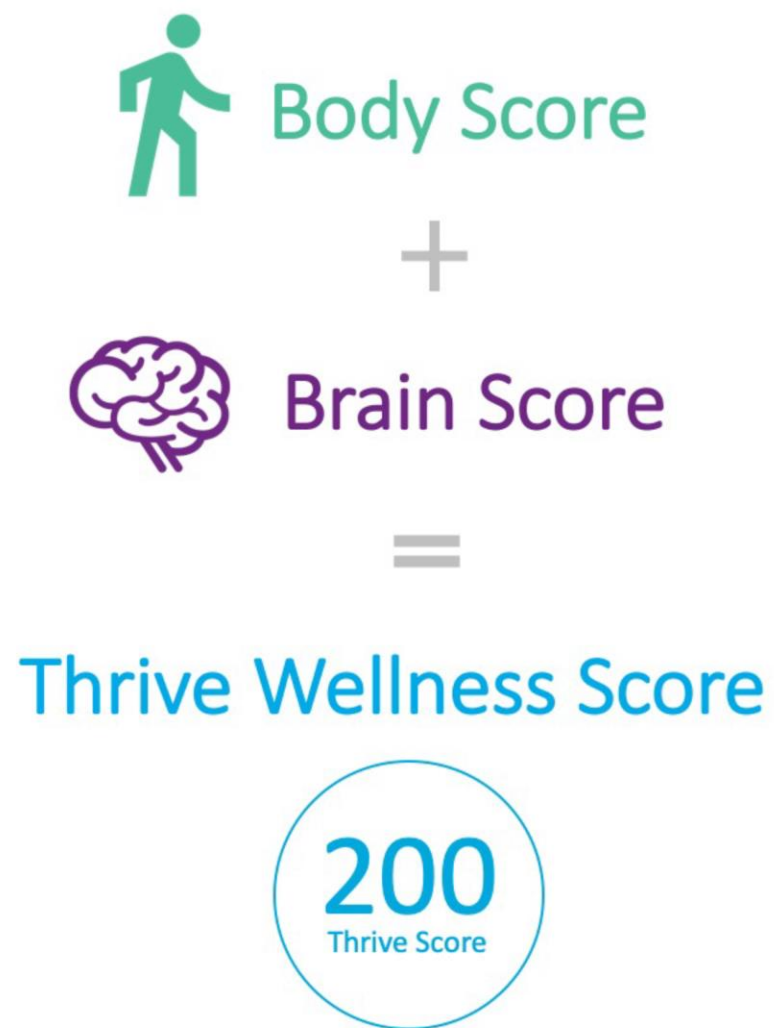
Engagement

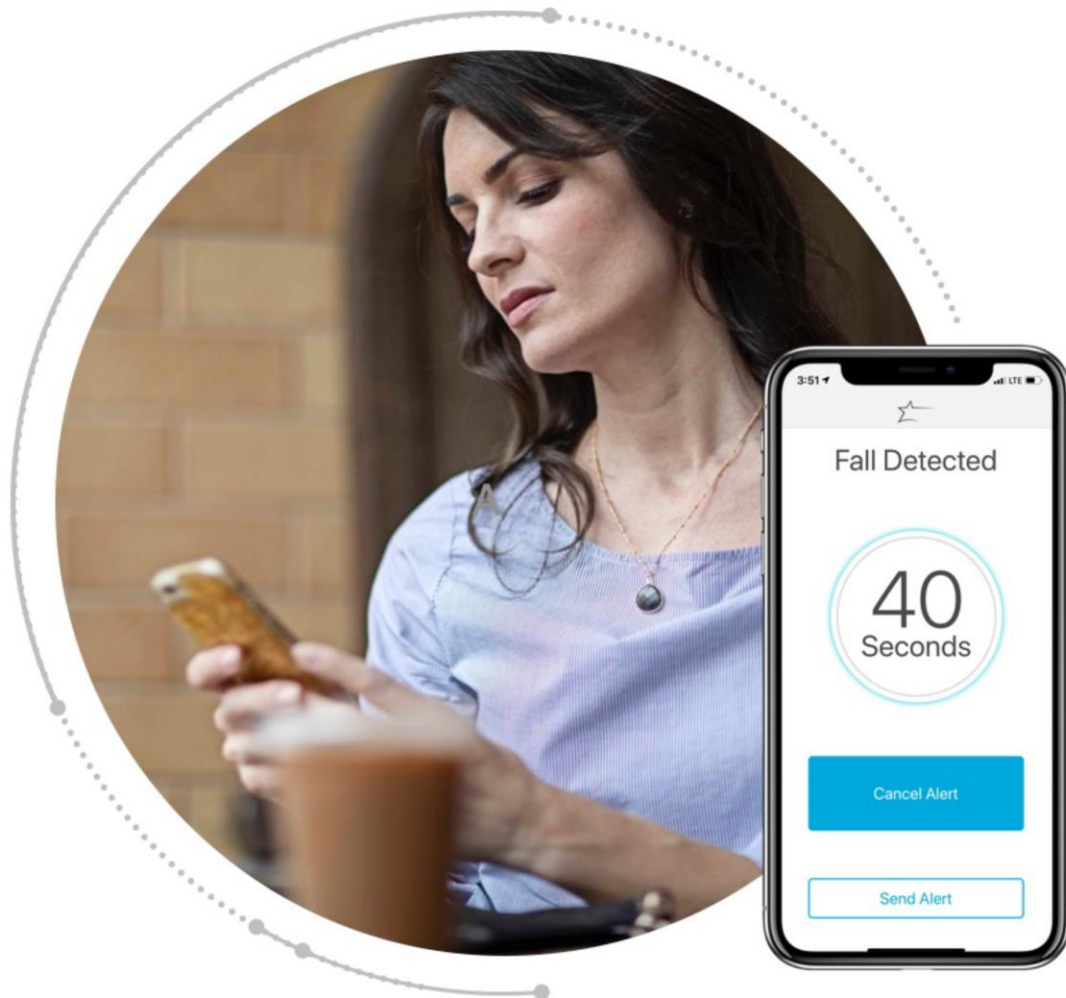
Percentage of time in complex social listening situations, including streaming



Active Listening

How varied are the listening environments





World's First and Only Hearing Aid with Fall Detection and Alerts

**Detects falls and sends alert
to selected contacts**



Reminders

Set audible reminders
for appointments and
important tasks



Rechargeable

Small and Easy to Use

Delivers up to 24 hours
of hearing on a single
charge

All-in-one charger

holds enough charge to provide
portable charging without
plugging into the wall



All-in-One
Charger*



Mini Turbo Charger

*Included with Livio AI rechargeable

Hearing Aid Care



Remove at Night



Clean Periodically



**Avoid Water,
Hair Products, etc.**



**Change or Recharge
Batteries**

Hearing Aid Fitting Best Practices



Video Otoscopy



Thorough Examination

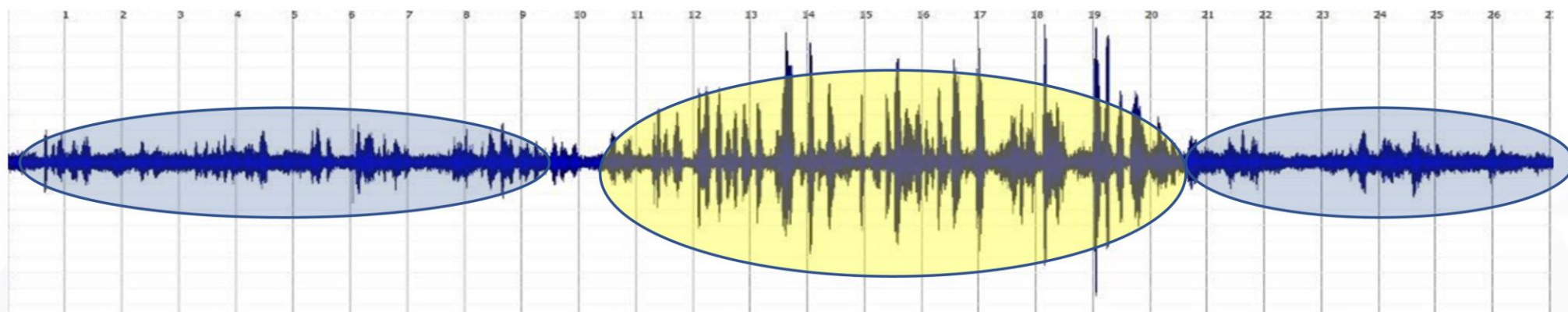


Verification with Real
Ear Measurements

HEARING ASSISTIVE TECHNOLOGY (HAT)



Why Clients Need Assistive Technology



iPhone recording @ 2 feet away
from speaker's mouth.

Recording @ at speaker's mouth.

iPhone recording @ 2 feet away
from speaker's mouth.



Hearing Assistive Technology

Dramatically improve the lives of people with hearing loss.

Bypass challenging acoustics—sending sound directly to users' ears.

Bridge the gap between you and the sound source by eliminating the effects of:

- Distance
- Background Noise
- Reverberation

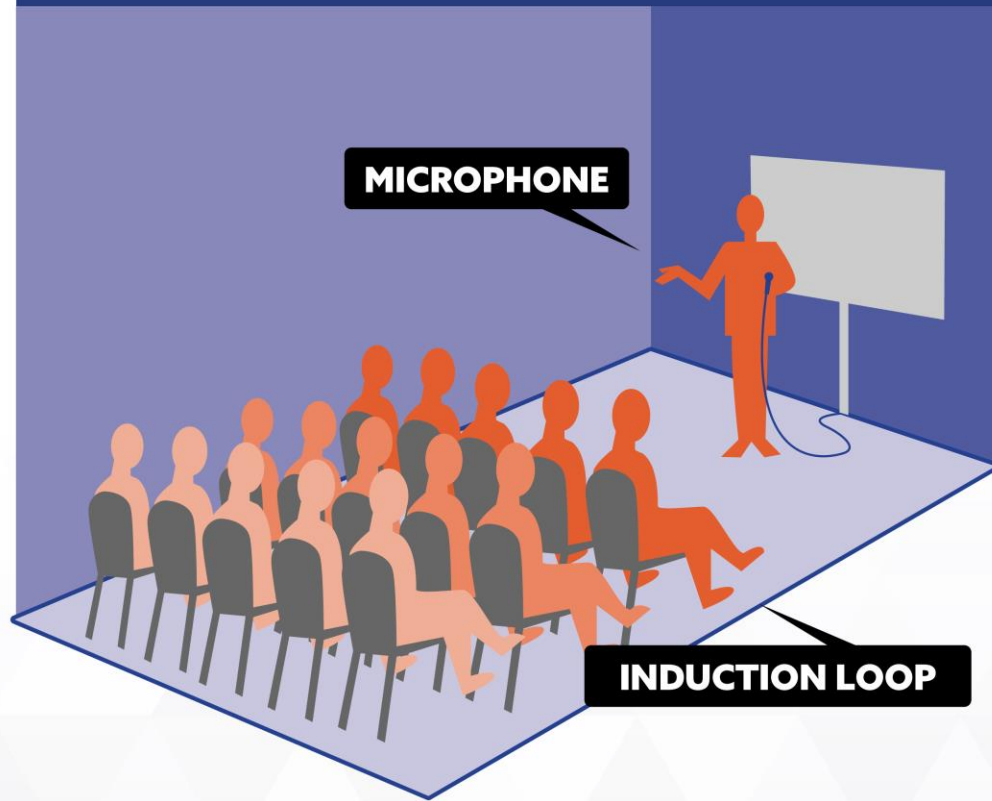
Three Types of Assistive Listening Devices

Provide ADA-Mandated Communication Access in Public Areas

The 2010 ADA requires an assistive listening system in each assembly area where audible communication is integral to the use of the space (the law does not dictate type of system – FM/ RF, IR or hearing loop) and requires that 25% of the listening devices offered must be hearing aid compatible (this means telecoil compatible headphones, neck loops or hearing loops).

- 1 Hearing Loops
- 2 Infrared
- 3 FM Systems

Induction Hearing Loops



Hearing Loops

Hearing Loops, also known as Induction Loops or Audio Frequency Induction Loop Systems (AFILS), consist of a copper wire placed within a room, theater, or counter which is connected via a special loop "driver" to a public address or sound system. An electromagnetic field is created that connects to a telecoil in hearing aids, cochlear implants, or telecoil receivers.

Hearing Loops

User-friendly, simple, discreet, and effective.



Useful on the telephone



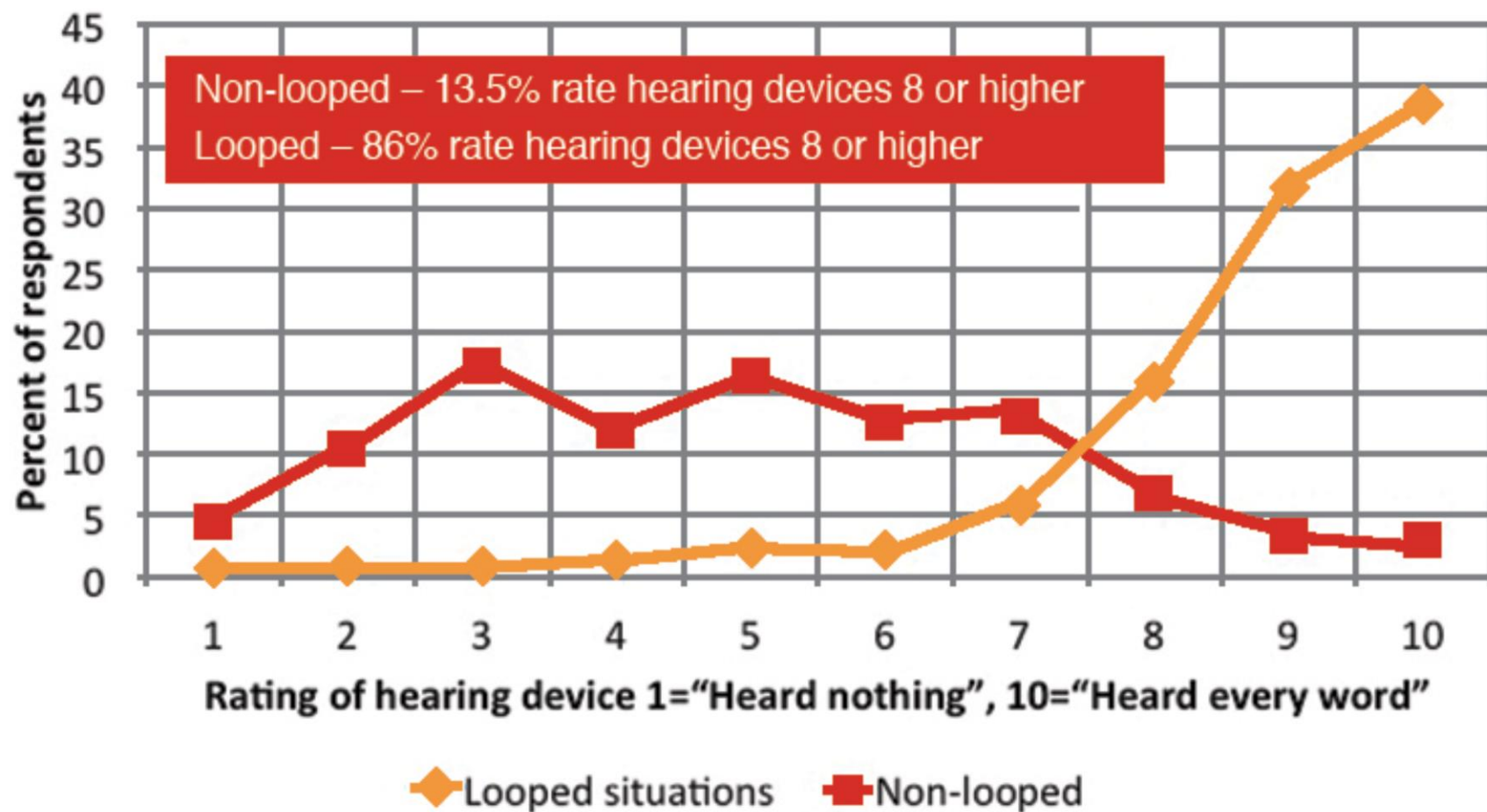
Switch to the telecoil program and automatically receive clear, customized sound directly to ears.

Not all hearing aids come with a Telecoil- ask your Hearing Healthcare Professional for Telecoil.



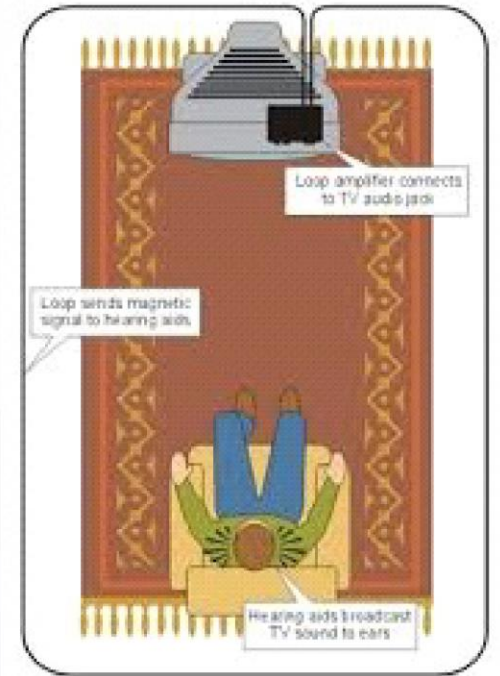
[Link to assistive technology](#) – in public venues where the ADA requires the installation of Assistive Listening Systems.

[No telecoil? No hearing aid? Use a hearing loop receiver and headphone to connect to the system.](#)



What else is a Hearing Loop?

Amplifier plugged into TV just like a room loop with a wire discreetly strung to TV viewing chair and hooked to loop pad that goes under the chair's cushion (can also be used under the mattress in a bed).



What else is a Hearing Loop?

A few of the uses of the neckloop...

Stereo and Surround Sound Systems

Computers or Tablets

Phones (Cell and home)

MP3 Players

On a TV equipped treadmill at the gym

On your TV at home or while traveling



Neck Loop

Think of it as a headset.
Required by the ADA for all
assistive listening systems.



Amplified
with Microphone



Unamplified

Hearing Is Believing!

- https://www.youtube.com/watch?time_continue=105&v=Ahbz0VvIZF0&feature=emb_title

Where will you find loops?



Places of Worship
Movie Theaters
Performance Spaces
Office and Waiting Rooms
Banks and Retail Stores
Transportation Hubs
Airports
Unexpected Places

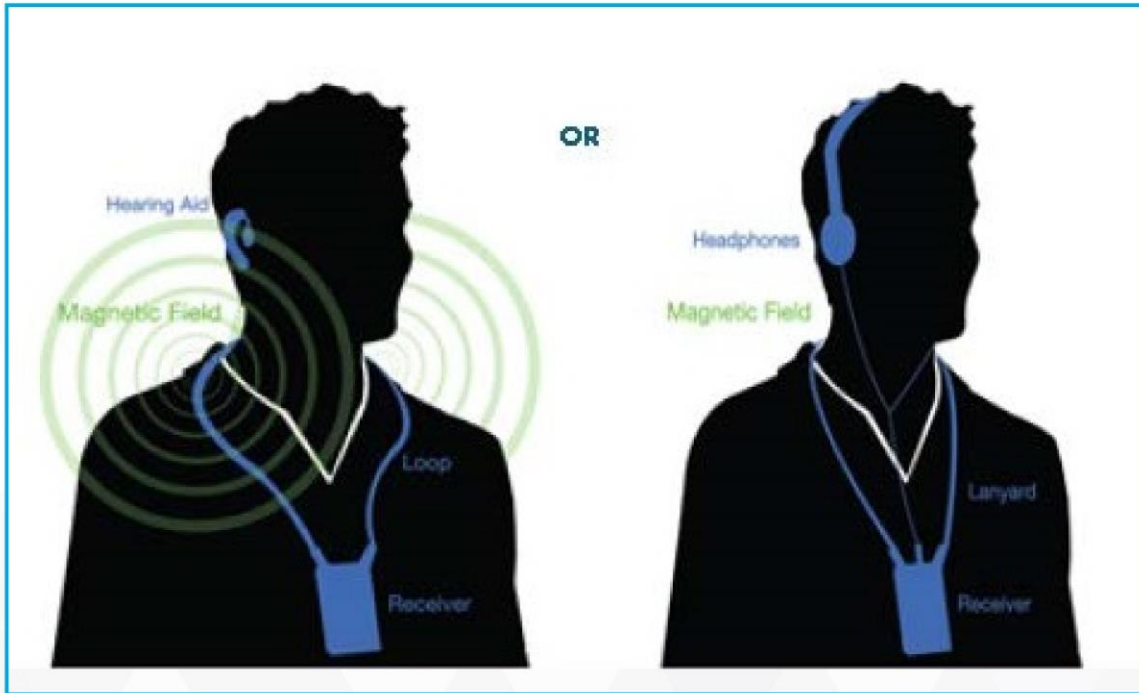
Unexpected Places

Where will you find loops?



New York City Taxi Cabs Have Loops! All new NYC taxis must be this hearing loop equipped "Taxi of Tomorrow".

Infrared Systems



Infrared Systems (IR) work like TV remote controls.

- Line-of-sight technology
- IR signals are sent and received in a straight line.

Everyone using the IR system needs a receiver and either a headphone or a neck loop-usually available at a customer service desk or by asking a member of staff.

Personal FM Systems



FM Systems

FM Systems, or Radio Frequency Assistive Listening Systems, transmit wireless, low power FM frequency radio transmission from a sound system to FM receivers.

Everyone using the system needs a receiver and either a headphone or a neck loop.

For those who have telecoil-equipped hearing aids and cochlear implants, neck loops eliminate the need for headphones.

Hearing Aid Accessories

Remote Microphone



Table Microphone



TV Streamer



Remote



Assistive Listening Devices (ALD)

These devices can increase the functionality and enhance the performance of hearing aids when paired with a neckloop or they can be used in place of hearing aids, paired with ear buds or a headset. These devices can be used with a neckloop or an earhook, headset or ear buds.



*No Obligation
- Free Phone!*

TEXAS PHONE VOUCHER PROGRAM



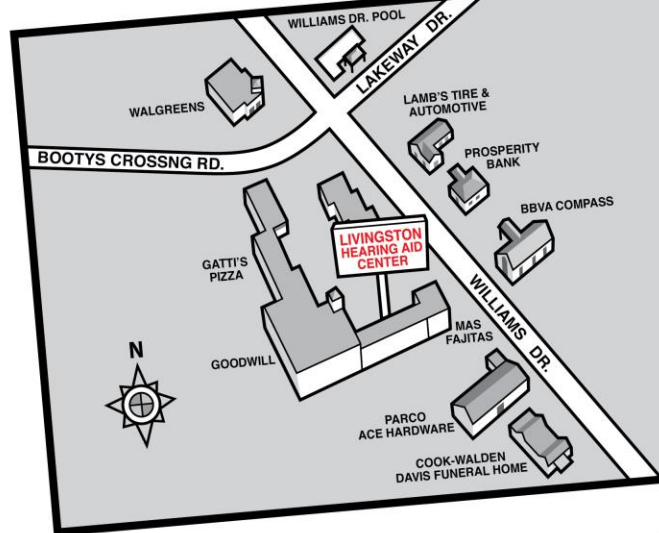
Ask our Team Members how you can receive a **FREE Amplified Phone!**

The Texas Voucher Program also offers **FREE Ring Signalers and Neck Loops.**

*The only qualifications are hearing loss and Texas Residency.

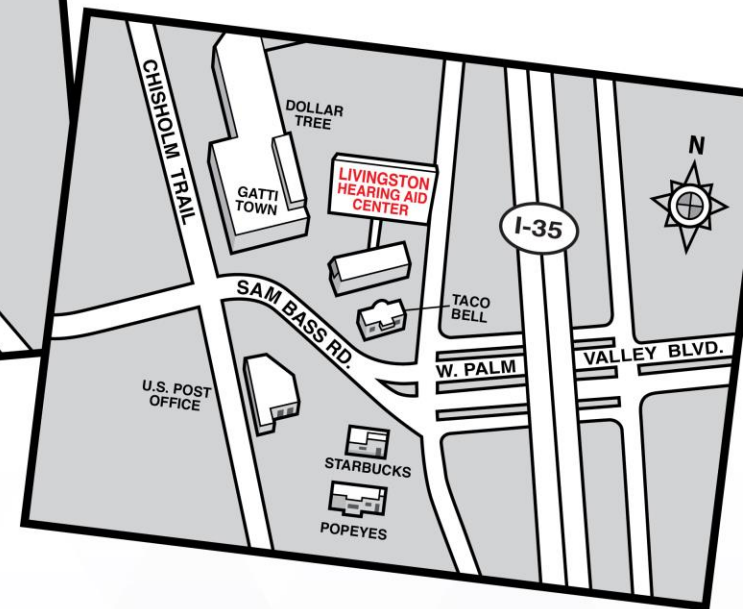
Livingston HEARING AIDS

We are here
to help you!



Georgetown

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Georgetown, TX 78628



Round Rock

1110 N I-35 Suite 200
Round Rock, TX 78681



Shawn Clark

Board Certified in Hearing
Instrument Sciences

Like and follow us
on social media!

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Founded in Lubbock, TX, we're
family owned since 1953.



We now have over 90 locations in Texas, New Mexico, Colorado, and Arizona. Each facility has the latest state-of-the-art technology and a team of specialists ready to serve you!

NEXT MEETING

March 12, 2020 – 9.30: a.m. – Atrium

Info - Contact Nelda McQuary - mcquary@suddenlink.net