



# Hearing Loops In Public Facilities



Soriya M. Estes, AuD  
[www.HearLifeAgain.com](http://www.HearLifeAgain.com)

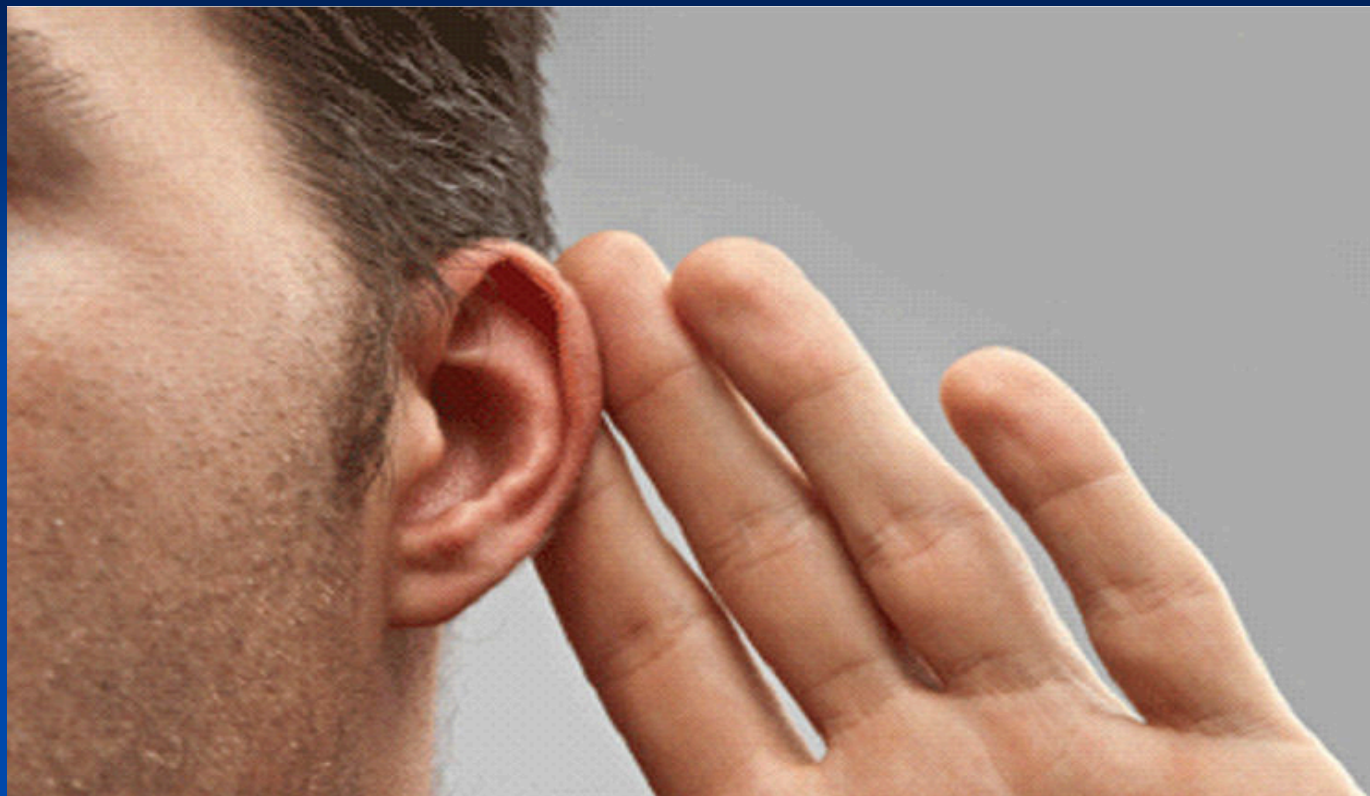
# **HEARING LOOPS**

## **the Assistive Listening System for those with hearing loss**

If you have hearing aids and want to know if the T-Coil works or have questions whether it is working in your hearing aid. Please raise your hand and we will assist you.

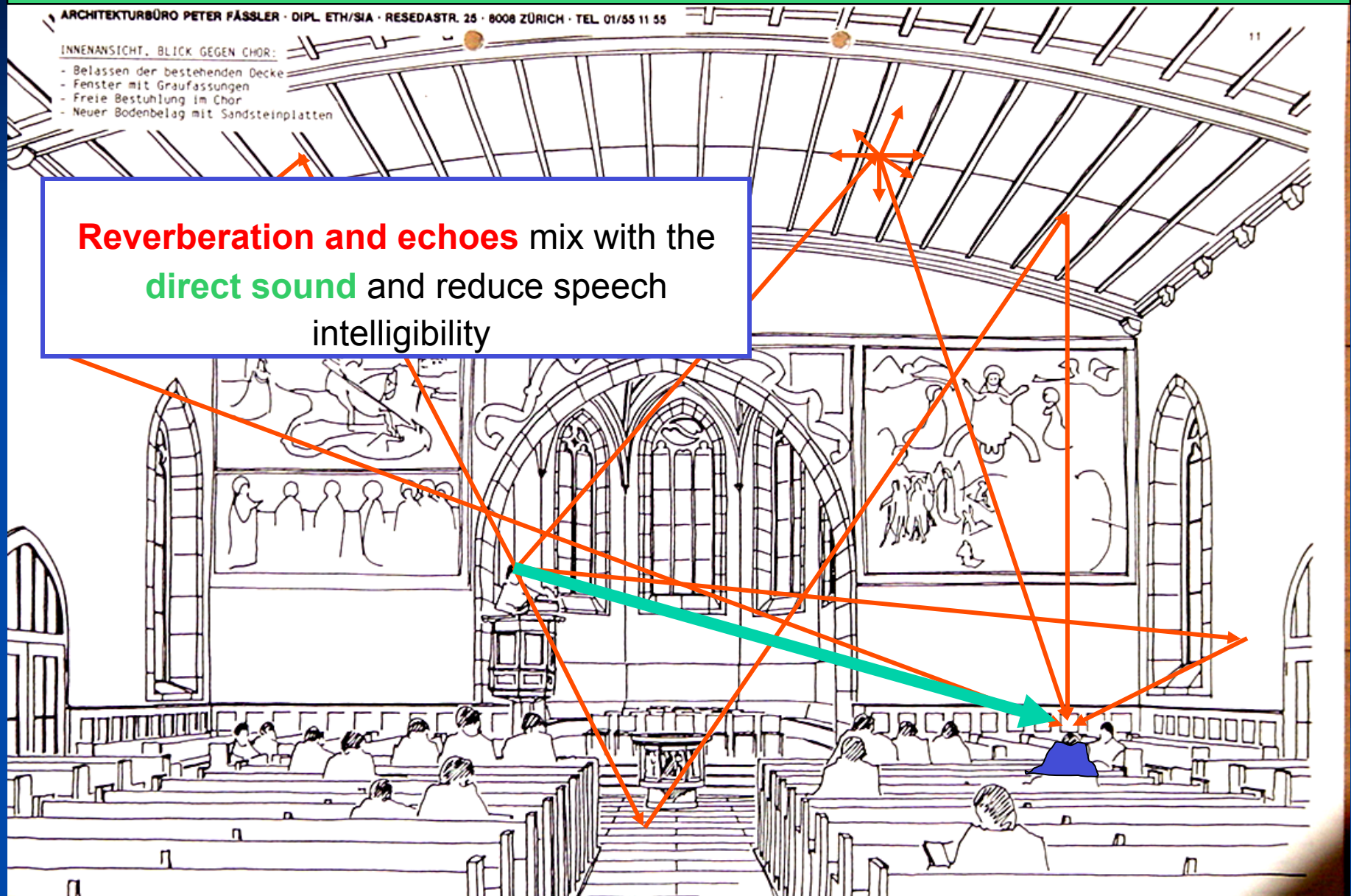
If you are using one of the portable loop receivers – you will need to hold the box vertical.

# Can You Hear?

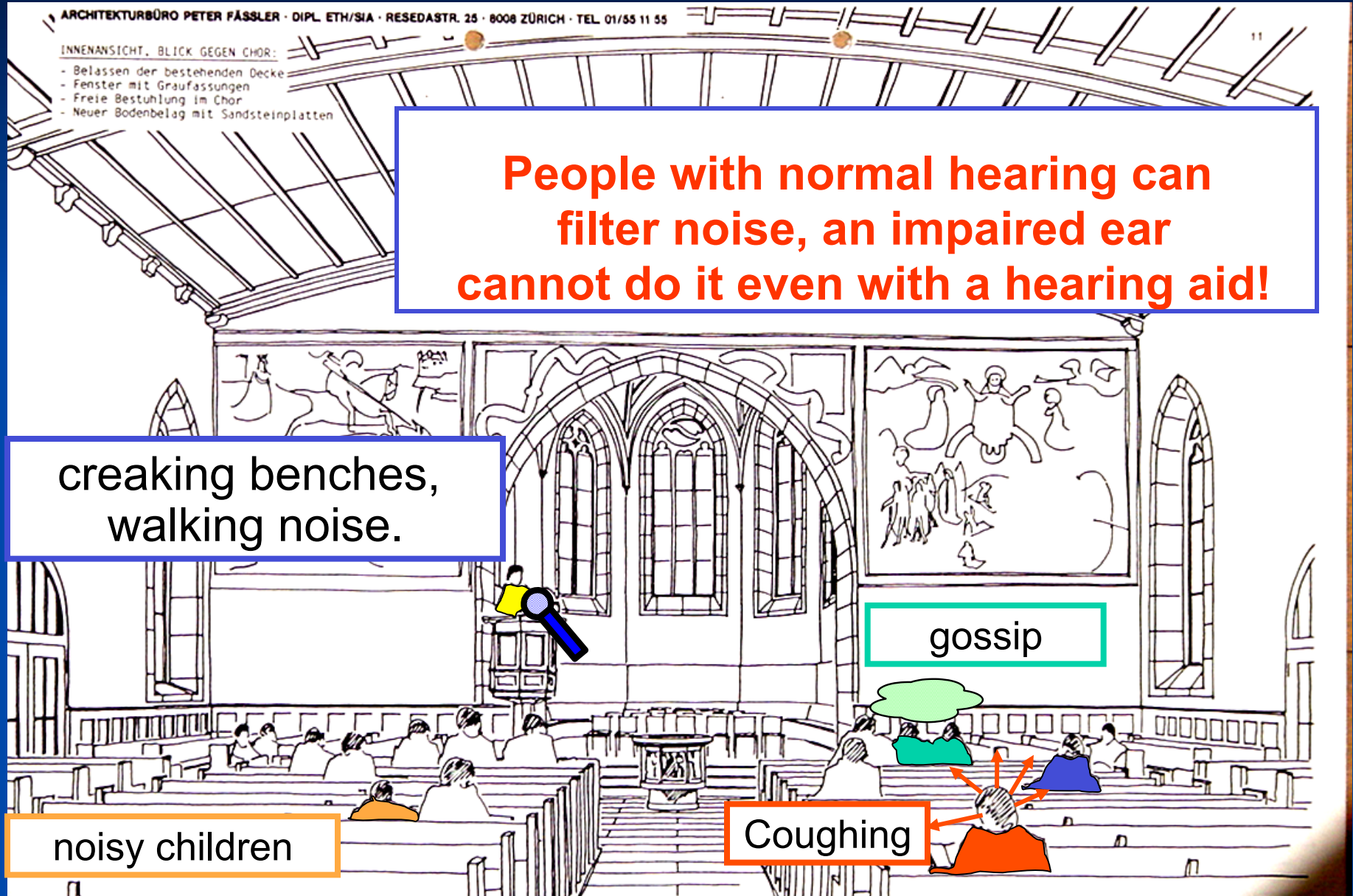


Just because you can hear that somebody is speaking  
does not mean they can understand the words.  
Even with hearing aids.

# Reverberation/Echo



# Ambient Noise



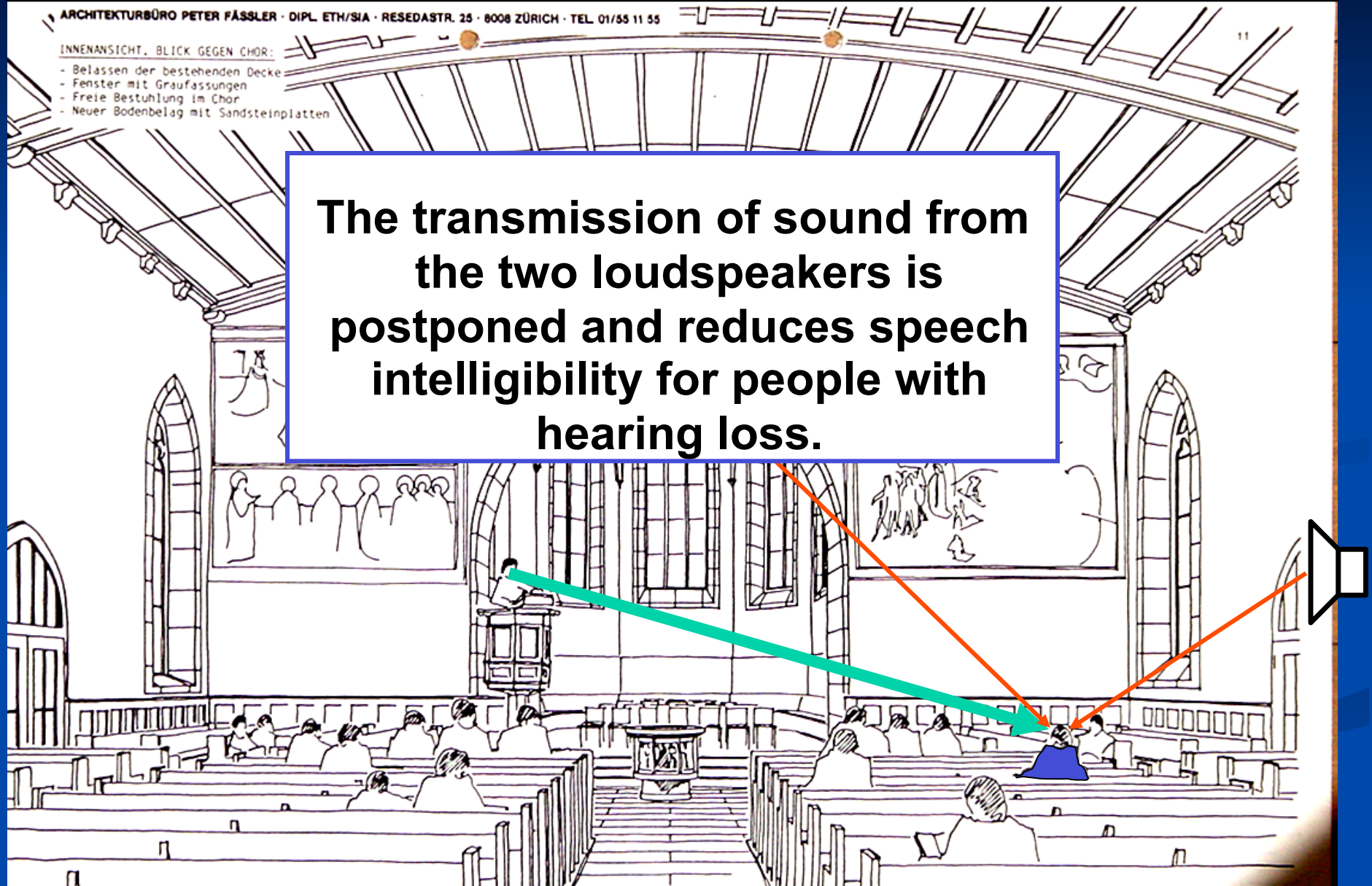
# Sound System

ARCHITEXTURBÜRO PETER FÄSSLER · DIPL. ETH/SIA · RESEDASTR. 25 · 8008 ZÜRICH · TEL. 01/55 11 55

INNENANSICHT, BLICK GEGEN CHOR:

- Belassen der bestehenden Decke
- Fenster mit Graufassungen
- Freie Bestuhlung im Chor
- Neuer Bodenbelag mit Sandsteinplatten

**The transmission of sound from the two loudspeakers is postponed and reduces speech intelligibility for people with hearing loss.**



# Some Basic Thoughts

Those new to your house of worship or other facility may not know the words to a song, however making sure the words can be heard in the middle of music can really help.

Not everyone has perfect hearing, as people get older their hearing naturally get worse. Some people, even the young, have experienced hearing damage. Often because of exposure to excessive sound levels or a result from a medical conditions.

Such systems let those with hearing loss hear the words and music without the effects of the room acoustics. This can greatly increase their ability to understand, enjoy and participate.

# Hearing Data

- 1 out 10 Americans (36,000,000) have some hearing loss.
- 1/3 of those over age 65 have hearing loss.
- 65% of those with hearing loss are below retirement age.
- 3 in 1000 children are born with some form of hearing loss.
- 95% of hearing aid owners say their #1 need is to improve intelligibility in high noise areas.
- One out of six, or 29 Million adults, have some trouble discerning speech.
- Johns Hopkins University in Baltimore estimated that 55 million Americans have hearing loss in one or both ears.

- According to Reuters: “ The prevalence of hearing loss in the U.S. is predicted to rise significantly based on an aging population, the growing use of in-ear devices (personal stereo) and increased work place noise.”
- Reuters also reports, “according to researchers, there is concern that we may be facing an epidemic of hearing impairment.”
- Men are twice as likely as women to have hearing loss ? YES the women are right on this – sorry guys.
- For every individual requiring handicap/wheelchair access there are 10 who need access to hearing assistance and rarely find it available.

# WHY HEARING LOOPS

Our mission is NOT to promote loop systems per se,  
but rather to promote hearing aid compatible  
assistive listening that is -

- Affordable
- Available with most hearing aids  
(including in-the-ear aids)
- Demands little/no battery power
- Inconspicuous and user-friendly
- Can be used everywhere you go

# User Comments

## First time in the Loop

Chuck Wise – Adult Discipleship Director –

“WOW, HUGE DIFFERENCE, LIKE THE SPEAKERS ARE RIGHT IN MY HEAD”

Clients of Juliette Sterkens, Au.D.

- “Love it, Love it, LOVE IT”

-“This is probably the first time in 20 years that I have been able to hear the sermon clearly”

-“The best thing about my hearing aids?

-Going to church”-

Tom Schroeder from Holland, Michigan

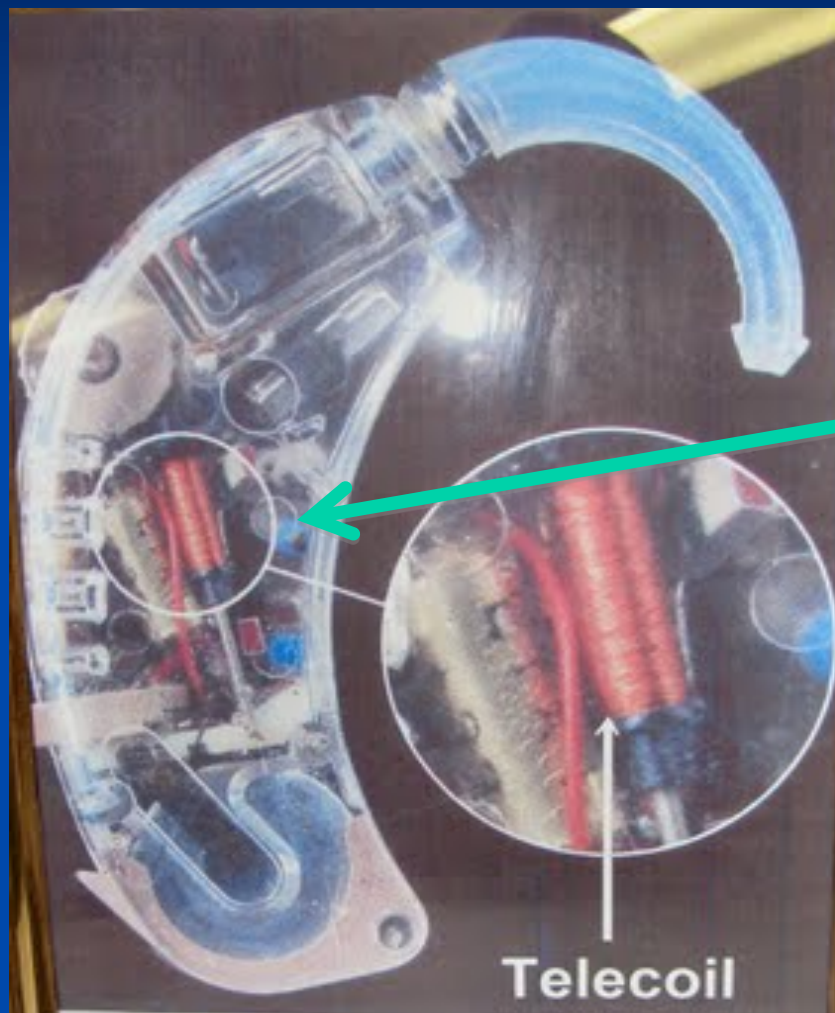
-“With the MY-T, home loop thing I now watch TV with my wife, we haven’t for over 10 years”

## *Hearing loops and the T-Coil*



- T-coil is located in the hearing aid
- The T-coil is activated by a switch or button or remote control
- No external box required

How does a Hearing Aid  
work with  
a Hearing Loop System?

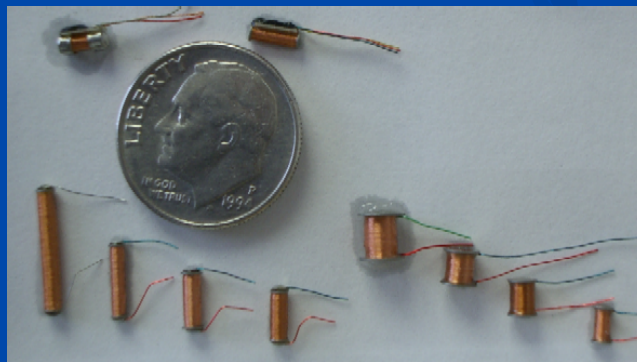


**The TeleCoil  
Telephone Coil**

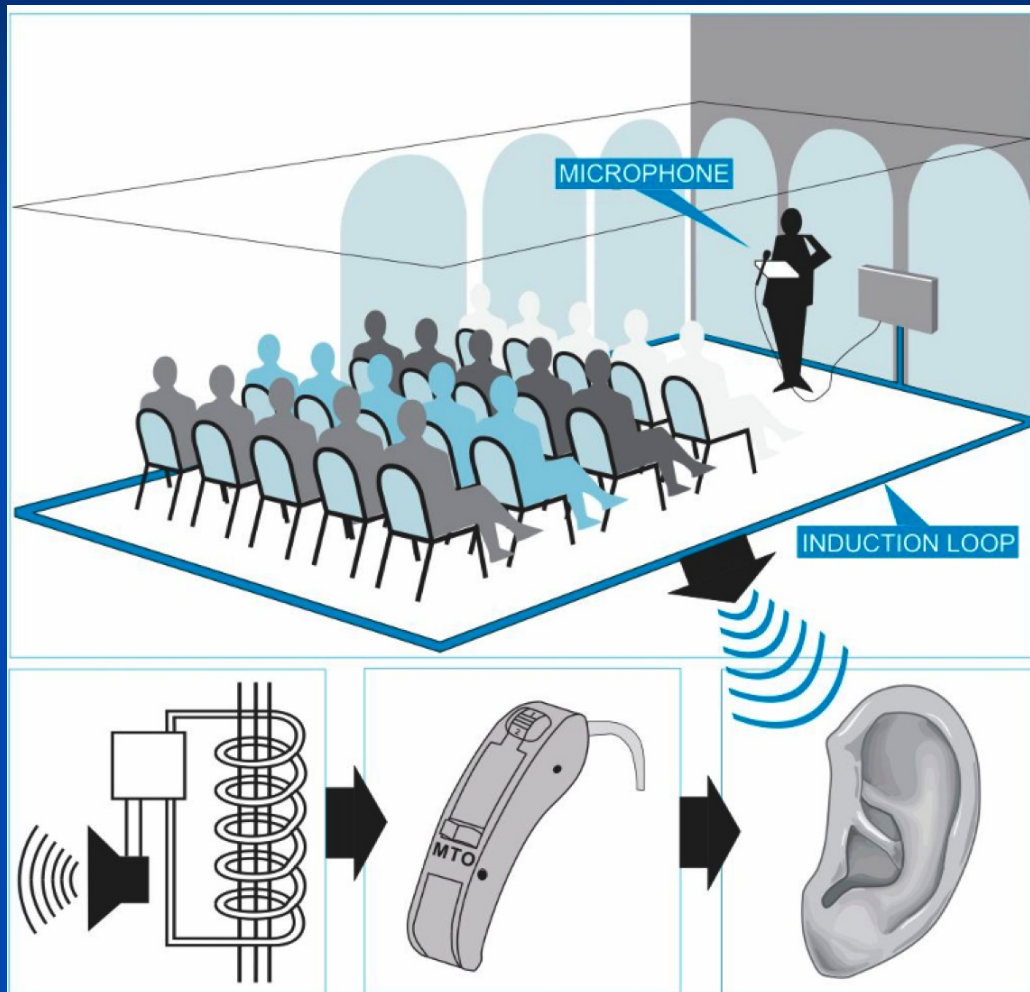
**Telecoil**

## *Hearing loops and the T-coil*

- A hearing loop is a system that utilizes a device (T-coil) - in most of the hearing aids.
- Hearing loop systems create a magnetic field that transmits an audio signal directly to the aid.



# The Hearing Loop System



“turns your own hearing instrument into a wireless loudspeaker that broadcasts sound customized for your own ears”

Dr. David Myers – Hearing  
Review Feb, 2010

# *Types of hearing aids*

In the ear or ITE  
Either full or half shell



In the ear canal or ITE or  
CIC completely in the canal



Behind the ear or BTE



# *Types of hearing aids*

## **Cochlear implants are ready for induction loops**

Cochlear ESPrit 3G with  
integrated T-coil



# Types of Assistive Listening Systems

**Infrared:** Need direct line of sight to work and extra device for reception required. Batteries need to be charged. Confined to specific listening area. Not applicable at customer service counters like ticket windows, bank or pharmacist.



# Types of Assistive Listening Systems

## FM (Frequency Modulation) / RF Systems:

Ear-buds, headphones and “belt-packs” required. Difficult to locate, uncharged batteries and lack of user-training, lost portable units. JUST NOT USED



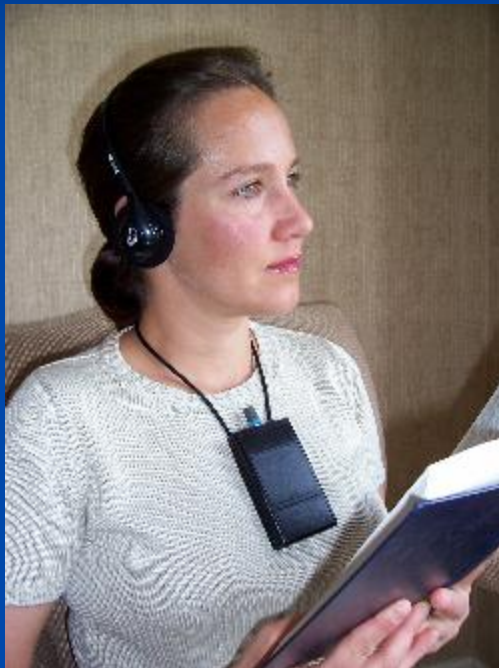
# Types of Assistive Listening Systems

## Induction Loop Systems –

Hearing aids with fitted T-Coils. No additional equipment required. Portable receivers still available for those who do not have hearing aids yet.



# The portable loop receivers available for those without T-coil



- Comes with headphones
- Needs to be held vertically
- Has volume control
- Uses standard headphones
- Includes neck strap



# Unlike FM and infrared listening systems, loop systems that broadcast to hearing aids:

- 1) Require no pick up/return of portable receiving units and headsets
- 2) Require fewer portable receiving units (and batteries)
- 3) Operate on a universal frequency (FM systems operate on differing frequencies, requiring receivers for each venue)
- 4) Are inconspicuous: No need to visually announce “I am HOH!”—an invisible solution to an invisible problem
- 5) Entail no hygienic concerns regarding ear buds
- 7) Are hearing aid compatible: Do not require putting ALD on/off (e.g., church sermon/singing)
- 8) Flexible use: Can allow either direct listening (M=mic) or loop broadcast (T=telecoil) modes, or both
- 9) Deliver personalized in-the-ear sound . . . customized by one’s own hearing aids to address one’s own hearing loss
- 10) Are therefore more likely to be used . . . and to be increasingly used, once installed.

# Hearing Data for T-coils

- Cochlear implants today are all equipped w/T-coils.
- T-Coil users require no assistance to use a Hearing Loop System.
- 66% of all hearing aids are equipped w/T-coils, however many may not be activated. 10 years ago this number was less than half.
- Many hearing aid users report the T-coil is their favourite feature.

*A recent HLAA study revealed that over 84% of the members surveyed had T-coil.*

| 22. Do you have a T-switch (telecoil) on your hearing aid/cochlear implant? |  | Number of Responses | Response Ratio |
|---|--|---------------------|----------------|
| Yes   |  | 259                 | 84%            |
| No  |   | 41                  | 13%            |
| Not informed/not recommended  |  | 5                   | 2%             |
| Don't know  |  | 5                   | 2%             |
| Total   |  | 310                 | 100%           |

Just like a “WiFi” network delivers wireless Internet access to a computer user, a loop system delivers the sound from a sound system, via hearing aids, right into the listeners ears.

*The magnetic field from the induction loop causes a small current to flow in the T-coil which is amplified and sent to the hearing aid's internal speaker. By making this magnetic field follow the program audio – the information is sent directly into the hearing aid, No echo, No extraneous noises and a substantial increase in comprehension. Especially when the microphones are off.*

## *Hearing loops and why loops*

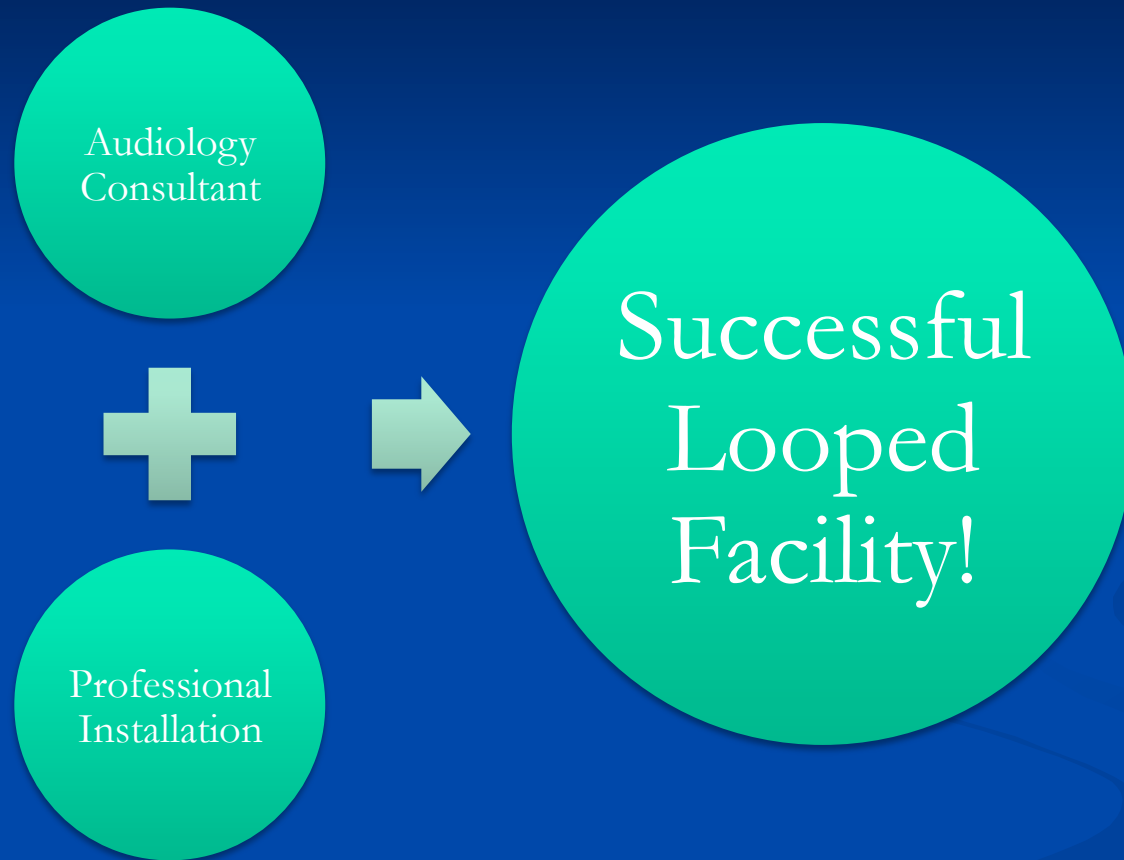


- Microphones are turned off – therefore - **Customer's comprehension goes from 0-20% all the way up to 85-95%.**
- No external equipment is needed – just a sign that informs them of the loop.
- No special training required.
- No maintenance costs for belt packs, batteries and headphones.
- Hearing Loops offer a cost-effective per user.

# Loop SIGN



## The Perfect Equation for Looping



# Digital display loop

## Is your Doctor's office or pharmacy looped?



## Bank/Ticket counter and Drive-thru hearing loop systems



Is your church looped?



# Hearing Loss

Helen Keller said

*"I am just as deaf as I am blind. It is the sound of the voice that brings language, sets thoughts astir, and keeps us in the intellectual company of man. "*

*"Blindness separates us from things but deafness separates us from people."*

# How do I obtain a system?

Presently discuss with either Soriya Estes, AuD of Estes Audiology or Richard McKinley with Contacta, Inc.

Estes Audiology is currently in the process of coordinating trained dealers/installers in central Texas as have been modeled throughout other states in the US.

We can help to get systems in place and will be glad to coordinate these installers for your facility for an estimate

# Questions

Thank you for your time  
and interest!

