

ACCESS:

How Best to *Serve*
Postsecondary
Students

Who Are *Hard of Hearing*

PRESENTER'S NOTES

TRAINING OBJECTIVES

- Hearing loss and education
- ADA requirements
- Accommodations information
- Assistive technology accommodations
- Communication strategies

Increase understanding about hearing loss and its effects on a student's education

Review Americans with Disabilities Act (ADA) requirements for postsecondary settings

Provide information about accommodations that are available to increase communication access in postsecondary settings

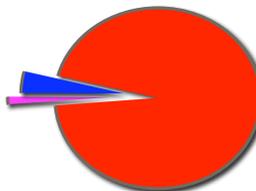
Demonstrate different assistive technology accommodations and provide participants with hands-on training

Share communication strategies that can be used to increase the effectiveness of assistive technology and other accommodations

OVERVIEW OF HEARING LOSS

Populations:

- Hard of Hearing (95%)
- Late Deafened (4%)
- Culturally Deaf (1%)



Populations of people with hearing loss explained – Deaf/Hard of Hearing/Late Deafened:

Hard of Hearing 94.8% Prelingually/Culturally Deaf 1.4% Late Deafened 3.8%

Demographics of hard of hearing people

Hearing loss is the largest disability and growing – 28 million nationally
4% between ages 18 and 25 have some level of hearing loss
79% start to lose hearing at 19 years or older
6 million use hearing aids

Population with Hearing Loss

Statistics compiled by the Rehabilitation Research and Training Center for Persons who are Hard of Hearing and Late Deafened, the California School of Professional Psychology, San Diego, 1993.

Numbers and proportions of persons are approximate based on several nationally conducted demographic surveys, including the National Center for Health Statistics (NCHS), Data from the National Health Survey, Series 10, No. 188, 1994; and Schein, J.D. & Delk, M.T. (1974). The Deaf Population of the United States, Silver Spring, MD; National Association of the Deaf.

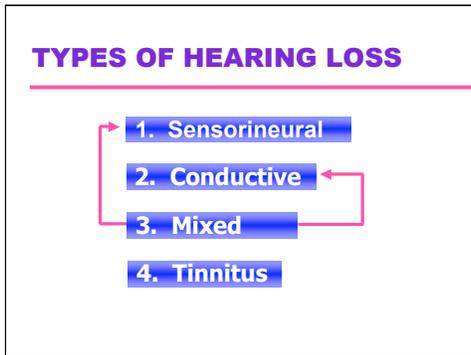
Ranges for the different groups vary according to the type of study conducted and the sample surveyed. Based on several studies, the number of people who are hard of hearing ranges from 20 million – 28 million; the number of people who are late deafened ranges from 800 thousand – 1 million, 500 thousand; and the number of people who are culturally deaf ranges from 300,000-500,000.

Demographics Data from:

National Institute on Deafness and Other Communication Disorders, 1992

National Center for Health Statistics, National Health Survey, 1990

Hearing Industries Association, 1996



Sensorineural Hearing Loss

- Most common type of hearing loss
- Damage to the sensory cells and/or nerve fibers of the inner ear
- Often called nerve loss though hair cells are damaged not the nerve
- Difficulty differentiating sounds
- Hard to hear speech in background noise
- Increasing the volume does not clarify the speech sounds

Common Causes of Sensorineural Hearing Loss

Genetic defect Noise exposure Virus or fever from other diseases Ototoxic drugs Presbycusis
 Metabolic Diseases (Diabetes, Elevated Cholesterol, Nicotine/Caffeine Effect) Unknown causes

Noise and presbycusis (hearing loss in aging) account for most hearing loss. Incidence of hearing loss goes up with age. One in three people over the age of 65 and one in two over the age of 80 have some degree of hearing loss versus one in nine of the general population.

Sensorineural hearing loss is the type of hearing loss that is not amenable to surgical or medical treatment. It is the kind most doctors tell their patients that they just “have to live with” and that nothing can be done. This is inaccurate as much can be done to “manage” sensorineural hearing loss through hearing aids/cochlear implants/technology and rehabilitation.

Many people with sensorineural hearing loss lose hearing in the upper ranges first, therefore they have more difficulty with the higher voices of women and children than men. They will have difficulty differentiating sounds such as “f” and “s” and cannot understand anyone in a noisy

Conductive Hearing Loss

Problem in the outer or middle ear
 Sound is not effectively conducted to the inner ear
 Individuals with conductive loss may feel as if they are wearing ear muffs
 Increasing the volume of sound usually improves the clarity of hearing

Common Causes of Conductive Hearing Loss

Wax in the ear canal Punctured eardrum
 Otitis media – middle ear infection. Common in children Otosclerosis – growth of tissue that hampers movement of the middle ear bones

Common Causes of Conductive Hearing Loss

- Otitis media (or middle ear infection) is very common in children and can have a negative impact on their performance in class.
- Both otosclerosis and perforated eardrum can be treated surgically with good results

Mixed Hearing Loss

Has components of both sensorineural and conductive
 Conductive component may be treatable medically surgically

Tinnitus

Internal ringing or buzzing sound in the ears or head
 May be a minor annoyance or overwhelming problem

Affects 35 million Americans

Common Causes of Tinnitus

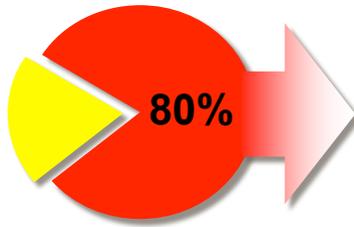
Often accompanies hearing loss
 Loud noise
 Other possible causes allergy medications stress too much alcohol or caffeine inadequate circulation

If no medical cause is found then a program of management can bring successful relief with use of hearing aids, tinnitus maskers, cutting down on caffeine, and making lifestyle changes. The impact of tinnitus is often underestimated.

**NUMBER OF
HARD OF HEARING PEOPLE**

26 Million People
are Hard of Hearing

HEARING LOSS OF HARD OF HEARING PERSONS



1. Involves both ears
2. Is permanent
3. Allows benefit from hearing aids

CHARACTERISTICS OF HARD OF HEARING PEOPLE

- No separate culture
- Want to use residual hearing
- Hearing loss: mild to profound
- English is first language
- Fewer than 5% use sign language
- Six million use hearing aids
- Use technology

No Separate Culture

- From all walks of life
- May not know anyone else with hearing loss
- Dispersed among general population
- Friends and family are most likely hearing

Want To Use Residual Hearing

- Most have grown up hearing
- Grieve the loss of their hearing
- Want to maximize use of residual hearing

English is First Language

assume the

- Able to speak and want to use speech
- Grew up using the voice phone network
- Because Hard of Hearing individuals speak well, many people individual doesn't need help communicating

Less Than 5% Use Sign Language

- May learn some sign language as another skill
- Do not consider it a primary means to communicate
- Social contacts and family probably do not use sign language

Use Technology With or Without Hearing Aid

theaters

cry)

- Personal listening devices for one-on-one and small groups
- Devices for TV and telephone
- Portable/installed devices in public places such as churches, theaters
- TTYs
- Alerting devices for safety (fire alarm, door knock, phone ring, baby cry)

Characteristics of Hard of Hearing People – No Separate Culture

Though the numbers of culturally deaf people are relatively small, they are a very visible group that garners media attention because of their language and cultural identity. The larger group of hard of hearing people, on the other hand, have no separate culture, are harder to identify, and perhaps are less interesting to the media. As a result, people are often surprised how big a group they are. Students can be "invisible" in their classes and socially while in college, and may never get the accommodations

POSTSECONDARY STUDENTS WHO ARE HARD OF HEARING

- Probably come from mainstream setting
- View hearing loss as stigma
- May hide hearing loss
- Appear to be doing “just fine”
- May not know about VR resources

Educational Experience

↳ May have been the only hard of hearing child in class or even the entire school

- May have had audiological and other support services
- Probably was not provided the appropriate accommodations in classroom
- Probably missed a lot educationally and socially
- May not have received VR services in school
- May be unaware of financial help available for technology, including hearing aids

Societal Experience

↳ Still a stigma in society about hearing loss

- Associated with aging and reduced mental functioning
- Teachers’ and parents’ expectations may have been low
- Student’s expectations for self may also have been and still be low
- Embarrassment causes student to deny hearing loss
- May use bluffing
- May not wear hearing aids nor use Assistive Listening Devices (ALDs)
- May be conflicted about disclosing hearing loss

Tips to Educators

↳ Giving inappropriate responses

- Speaking in an unusually loud/soft voice
- Not hearing when someone speaks from behind
- Appearing to pay attention but not actively participating in class discussions
- Asking for repeats often
- Responding with smiles and nods but no further comments

Characteristics of Students Who Are Hard of Hearing

Because hard of hearing students often have good speech, and like to use their own voices, they are seen as being able to hear. There is a lot of misunderstanding about the impact of being hard of hearing. Personnel do not understand what accommodations hard of hearing students need in the classroom and the appropriate technology is often not available. It is common to assume that both hard of hearing and deaf students need sign language interpreters as an accommodation of choice.

DIFFERENCES BETWEEN DEAF AND HARD OF HEARING STUDENTS:



**DIFFERENCE BETWEEN DEAF and HARD OF HEARING STUDENTS
AND THEIR DIFFERING NEEDS**

Language	(ASL/English)
Accommodations	(Interpreters/Technology)
Support	(Culture/Mainstream)
Identity	(Pride/Denial)

MYTHS ABOUT HEARING LOSS

- X Everyone can speechread**
- X Hearing aids are the solution**
- X Speechreading gives 100% understanding**
- X Everyone knows sign language**
- X "You can hear when you want to"**

Hearing Aids Are the Solution

- Do not *correct* hearing to normal
- Perform well one-on-one in quiet
- Perform less well at a distance from the speaker, in noise, or in poor acoustic environment
- Need to be "stretched" with other technology and strategies
- Cost is not covered by most medical insurances
- Need aural rehabilitation for maximum benefit

Speechreading Gives 100% Understanding

- Only 30% of the English language visible on the lips
- Speechreading alone is very tiring and ineffective
- Is effective when used in combination with other strategies and technology

Everyone With Hearing Loss Uses Sign Language

- Fewer than 2 million people use sign language as their primary mode of communication
- Fewer than 5% of the 26 million Hard of Hearing people use sign language
- Most Hard of Hearing people in the U.S. grow up using English as their primary language

"You Can Hear When You Want To"

- Can hear in some situations (quiet) and not in others (noise)
- Can hear some voices (men's) and not others (women's)
- Can hear face-to-face but not from behind
- Can speechread clean-shaven speaker but not someone with beard

SENSITIVITY TRAINING ACTIVITY

SHOW:

- What it is like to hear partially
- Different degrees of hearing
- Hearing but not understanding
- Hearing loss and intelligibility
- Effect of poor acoustics

The purpose of the Sensitivity Training is for workshop participants to:

- Experience what it is like to hear partially
- Understand there are many different degrees of hearing from not hearing at all to hearing a bit to hearing almost everything
- Realize it is possible to hear but not understand
- Learn how intelligibility is affected by hearing loss
- Show the effects of poor acoustics on being able to hear

Exercise:

- Participants will be given ear plugs to wear to simulate a mild hearing loss
- Background noise will be introduced
- Participants will take a spelling test

ADA REQUIREMENTS

*Title 2:
Public Schools*

*Title 3:
Private Schools*

- All activities and programs must be accessible
- Must provide auxiliary aids and services to ensure effective communication
- Must provide unless undue burden

- Public schools are covered by Title 2, private schools by Title 3 of the ADA
- All activities and programs must be accessible to students with hearing loss
- Must provide auxiliary aids and services to ensure effective communication
 - Examples: CART, telephone amplifiers, assistive listening systems, captioned videos, qualified interpreters, notetakers, TTYs
- Must provide unless an undue burden or a fundamental alteration in the nature of the services
- Assistive listening devices and other auxiliary aids must be provided free of charge

Americans with Disabilities Act Requirements

Public schools are covered by Title 2 of the ADA that covers state and local governments. Private schools are covered by Title 3, public accommodations.

Auxiliary aids and services have to be provided unless it would result in an undue burden or fundamental alteration of the goods or services provided by the school. However, the school is not relieved from the duty to furnish an alternative auxiliary aid, if available, that would not result in a fundamental alteration or undue burden.

Undue burden means significant difficulty or expense. Fundamental alteration means, for example, that it would not be discriminatory for a physician specialist who treats only burn patients to refer a deaf individual to another physician for treatment of a broken limb or respiratory ailment. To require a physician to accept patients outside of his or her specialty would fundamentally alter the nature of the medical practice. Both the undue burden and fundamental alteration standards are evaluated on a case-by-case basis.

The types of auxiliary aids and services in a postsecondary setting might include assistive listening devices in classrooms and auditoriums; notetaking; CART; oral interpreters; volume control telephones; TTYs; and alerting devices in dorms for fire alarms.

COMMUNICATION ACCESS

COMMUNICATION ACCESS

Hearing Aids:

- Microphone, amplifier, receiver
- Fitted earmold
- Battery
- Styles:
 - ✓ in the ear
 - ✓ behind the ear
 - ✓ in the canal
 - ✓ completely in the canal
- Circuitry: linear, programmable, digital

Hearing Aids

Each individual needs to get a thorough hearing evaluation by a qualified professional to determine the most appropriate hearing aid to match the particular hearing loss configuration.

Hearing aids today still have the same basic elements but are becoming increasingly sophisticated. With the increasing use of directional microphones, the problem of hearing in noisy situations is being eased.

Linear - Conventional hearing aids use “linear” sound processing. This technology amplifies soft and loud sounds to the same degree and clips the sound waves that are too loud. The user can control the volume.

Compression – More aids are using compression circuitry. These aids automatically adjust the volume to accommodate loud and soft sounds.

Programmable – These aids are more expensive but have features that can be beneficial for people with difficult patterns of hearing loss. They can be fine-tuned by computer in a dispenser’s office and this can result in more comfortable sound and better discrimination than conventional models. Several programmable aids have multiple memories offering various settings. For example, one for conversation in a quiet place, another for use in noisy places such as restaurants. Adjustments may be made directly on the aid or via remote control.

Digital – Digital aids are the newest and most expensive of all aids. These two factors tend to make people believe they are going to provide more benefit than linear or programmable aids. If considering a digital aid, an individual should use the trial period to see if the digital aid does perform better and is worth the extra cost.

COMMUNICATION ACCESS

Cochlear Implants:

- Option when hearing aids no longer help
- Surgically implanted electronic device
- Sends sound messages directly to auditory nerve
- Uses external microphone, speech processor, transmitting coil, internal receiver

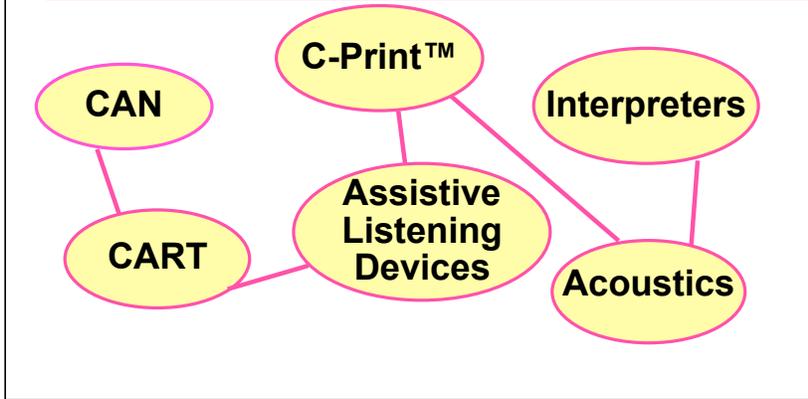
Cochlear Implants

- An option when hearing aids no longer help
 - Surgically implanted electronic device
 - Sends sound messages directly to the auditory nerve
 - External microphone, speech processor, transmitting coil, internal receiver
-
-

Cochlear Implants

Cochlear implants are controversial among deaf people, especially for use in children. SHHH believes individuals have the right to make decisions for themselves and for their children about their hearing care. Cochlear implant technology is improving all the time. Cochlear implants have been shown to help both adults and children with appropriate rehabilitation. Some people have dramatic results – they can even use the telephone.

COMMUNICATION ACCESS ASSISTANCE & AIDS



ASSISTIVE LISTENING DEVICES

- “Binoculars for the ears”
- Increase loudness of specific sounds
- Minimize background noise
- Reduce the effect of distance
- Override poor acoustics
- Uses: large areas, restaurants, television viewing

- “Binoculars for the ears”
- Increase the loudness of only specific sounds
- Minimize background noise
- Reduce the effect of distance between hard of hearing person and sound source
- Override poor acoustics
- Used in large areas, one-to-one, restaurants, for television viewing

Assistive Listening Devices – What Are They?

They are not public address systems with the sound turned up. They increase the signal-to-noise ratio (SNR). This is important as SNR has to be higher for people with hearing loss than people with normal hearing in order for them to be able to hear speech over background noise.

There are three types of ALDs (audioloop, FM and Infrared) and if they are working properly and well maintained they all provide excellent access. As a result of the ADA many large public performance spaces are now equipped with one of these systems and must provide supporting equipment for consumers who want to use them, with or without a hearing aid.

Systems in college auditoriums and lecture halls not only provide access for students, but also for the public when the school has public functions and for parents, grandparents, friends, and alumni at graduation ceremonies and other special events.

Handouts: “Why Use Assistive Listening Devices?” Cynthia Compton. Hearing Loss: the Journal of Self Help for Hard of Hearing People, Inc. Jan/Feb 1993.

NETAC “Teacher Tipsheet” on Assistive Listening Devices

ASSISTIVE LISTENING DEVICES	
TYPES of ALDs	SOUND TRANSMITTED
FM (Frequency Modulation)	Radio Waves
Infrared	Invisible Light Waves
Audio Induction Loop	Electromagnetic Field

- Audio Induction Loop transmits electromagnetic field
- Infrared broadcasts signal by invisible light waves
- FM (Frequency Modulation) broadcasts signal by radio waves

General Comments About All Systems

- All three work well
- All three are wireless
- Each can be used with or without hearing aids
- Each can be used with an array of receiver attachments for consumers with varying needs and preferences: neckloops, silhouette inductors, headphones, and other linkages.

Microphones

- Effective placement
- Sufficient quantity
- Use properly for maximum benefit of ALDs

Microphones The type of microphone and how it is used makes a big difference in how well an ALD works. School personnel have to be trained to hold the “mike” still and talk right into it without covering their mouth, which prevents speechreading. Lapel mikes should be clipped close enough to the speaker’s mouth for a strong signal pick up. The teacher needs a microphone and there also need to be microphones for use by other students in the class so that the individual with hearing loss can hear questions and comments from the class. For meetings around a table there should be one microphone for every two people. Directional microphones are preferred over omnidirectional as they cut down on the amount of background noise that is picked up and that can interfere with hearing the speaker.

Handout: “Why Use Assistive Listening Devices?” Cynthia Compton.

SPECIFICS OF FM

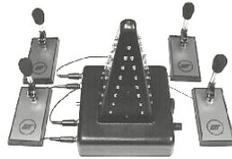


- Indoors /outdoors
- Covers several hundred feet
- Passes through walls
- Often used in classrooms
- Highly portable
- Subject to interference
- Multi-frequencies allow many uses in same area

Specifics of FM

- Can be used indoors and outdoors
- Covers several hundred feet
- Passes through physical obstructions such as walls
- Often used in classrooms
- Highly portable when used with belt-clip style transmitter
- May be subjected to outside interference
- Multi-frequencies allow for use by different groups within same area

SPECIFICS OF INFRARED



- Ensures confidentiality
- May be integrated with PA systems
- Receivers required for everyone
- Receivers compatible with most infrared emitters

Specifics of Infrared

- Ensures confidentiality as does not travel through solid surfaces
- May be integrated with existing PA systems
- Receivers required for everyone
- Receivers compatible with most infrared emitters

SPECIFICS OF AUDIO INDUCTION LOOP



- Loop of wire connected to output of amplifier
- Sometimes needs induction receiver
- Low maintenance
- Spill-over to adjacent rooms
- Susceptible to electrical interference

Specifics of Audio Loop

- Loop of wire encircling an area connected to the output of an audio power amplifier
- Induction receiver needed if no hearing aid or telecoil
- No receiver needed with telecoil equipped hearing aids
- Low maintenance
- Induction receivers compatible with all loop systems
- Spill-over to adjacent rooms
- Susceptible to electrical interference

CART **COMPUTER-ASSISTED REALTIME TRANSCRIPTION**

- Speaker's words displayed on screen or laptop monitor
- Provides **verbatim** readout
- Ideal for classroom, courtroom, meetings
- Edited printout or disk available

Computer-Assisted Realtime Transcription (CART)

- Visual display of the speaker's words
- A trained court reporter types on a stenographic keyboard
- Gives **verbatim** readout as stenographic typist can keep up with pace of speech
- Words are displayed on a monitor or projection screen
- Suitable for individual or group
- Ideal for classroom, courtroom, business and union meeting
- Edited printout or disk of proceedings can be made available
- Several software packages available to maximize readability

Computer-Assisted Realtime Transcription

CART is probably the preferred method of access for hard of hearing students in postsecondary settings. It is done by skilled stenographers. There is a need to find creative ways of financing this type of accommodation that is becoming increasingly popular and in demand as more and more hard of hearing students enroll in mainstream colleges. CART has the advantage of a disk or printout being available, but some schools will not allow dissemination of the transcript due to publishing concerns of faculty. Arrangements may be made to provide the student with a printout after signing a release form.

CAN

COMPUTER-ASSISTED NOTETAKING

- Speaker's words displayed on screen or laptop monitor
- Provides **summary** of what is said
- Suitable for individual or group
- Edited printout or disk available
- Less expensive than CART

Computer-Assisted Notetaking (CAN)

- Visual display of the speaker's words
- Notetaker types on a standard computer keyboard
- Provides a **summary** of what is being said
- Best done by a fast, accurate typist who can also summarize material well
- Notes are displayed on a projection screen or laptop computer monitor
- Suitable for individual or group
- May not be satisfactory in all situations, because only a summary
- Edited printout or disk of proceedings can be made available
- Less expensive than CART

C-PRINT™
COMPUTER-AIDED SPEECH-TO-PRINT

- Speaker's words displayed on screen or laptop monitor
- Provides **near verbatim** readout
- Uses word processing software aided by abbreviation software
- Captionist uses: > reduced keystrokes
> text condensing strategies
- Developed at NTID

C-Print™

- Computer-aided speech-to-print transcription system
- Developed at the National Technical Institute for the Deaf (NTID)
- Uses word processing software aided by abbreviation software
- Captionist uses reduced key strokes and text condensing strategies
- More complete than summary notes
- Captionist salaries range between professional notetaker and interpreter

—
C-Print™

C-Print™ is a new alternative to CART and CAN. It is a summary of what is being said in class and therefore more appropriate for liberal arts subjects than math and science. Few people in the U.S. are trained to do C-Print™ yet. NTID can arrange for training of personnel. Initial training takes one week. Proficiency increases over a period of one year.

Handout: NETAC "Teacher Tipsheet" on C-Print™ : A Notetaking System.

INTERPRETERS

Oral

American Sign Language

Sign Language Transliteration

Cued Speech

Oral:

- Interpreter silently mouths the words of the speaker so they are visible on the lips
- Facilitates speechreading to understand what is being said

American Sign Language

- A visual-gestural language with its own linguistic features

Sign Language Transliteration

- Sign language and mouth movements using elements of ASL and English

Cued Speech:

- A sound-based visual communication system
- Uses eight handshapes in four different locations (“cues”)
- Combines with natural mouth movements of speech
- Makes all the sounds of spoken language look different
- Facilitates speechreading

Interpreters

Most hard of hearing students do not use interpreters but prefer ALDs to allow them to use their residual hearing or CART services. Very few hard of hearing people would choose oral interpreting as a method of choice in a classroom setting as it does not provide enough accurate information.

ACOUSTICS

- Can interfere with speech understanding
- Reverberation and background noise
- Signal to noise ratio
- Currently no Federal standards
- Technical help available to improve
- Consideration as ADA accommodation

Acoustics

- Poor acoustics interfere with speech understanding for people with hearing loss
 - Reverberation and background noise greatly affect acoustics
 - Reverberation is the persistence of reflected sound energy or the echo effect
 - Background noise blocks the speech signal
 - Signal-to-noise ratio is the comparison of speech signal to noise
 - Currently no Federal standards for good acoustics in buildings
 - Technical information on how to achieve good acoustics is known and available
 - Under consideration now as an ADA-required accommodation
-

Acoustics

The impact of poor acoustics on hearing has been documented for a long time. Only recently has the U.S. Architectural and Transportation Barriers Compliance Board agreed to consider developing guidelines for acoustics as a required accommodation under the ADA.

STRATEGIES TO ENHANCE CLASSROOM ACCOMMODATION

- Teaching styles
- Speaking characteristics
- Reducing/eliminating background noise
- Seating and lighting
- Cooperation of faculty/other students
- Importance of visual information
- Using microphones effectively

□ Teaching styles

- Teaching style affects a student's ability to hear even though using technology
- Good communication techniques are essential
- Classroom services reinforce textually/visually what is being said (written announcements, captioned videos, written instead of oral test)
- Awareness of what to do and willingness to help student participate fully
- Communicating with student outside of class using TTY/relay

□ Speaking characteristics

- Strategies can enhance ability to speechread
- Speak naturally at a moderate pace
- Speak facing class - not looking down at notes or while writing on blackboard
- Do not cover mouth with hands, or cups, and do not chew gum

□ Reducing/eliminating background noise

□ Seating and lighting

□ Cooperation of faculty and other students

□ Importance of visual information – outlines, text of lectures

□ Using microphones effectively – single and multiple

Teaching Styles:

It is vital that staff and faculty members understand the differing needs of students with disabilities. Their level of awareness and receptiveness to a particular student's needs will have a major impact on that student's ability to succeed.

Handouts: NETAC "Teacher Tipsheet" on Teaching Students Who Are Hard of Hearing

"College-Bound Students". SHHH Publication.

RESOURCES

Northeast Technical Assistance Center	716-475-6433 (V/TTY)
Rochester, NY	
Self Help for Hard of Hearing People, Inc.	301-657-2248 (V)
Bethesda, MD	301-657-2249 (TTY)
RESNA Technical Assistance Project	703-524-6686 (V)
Arlington, VA	703-524-6639 (TTY)
HEATH Resource Center	202-939-9320 (V/TTY)
Washington, DC	
Rehabilitation Research and Training for Persons Who are Hard of Hearing or Late Deafened	619-554-1540 (V/TTY)
San Diego, CA	800-432-7619

Northeast Technical Assistance Center (NETAC) Rochester, New York
716-475-6433 (V/TTY)

The Northeast Technical Assistance Center, located at Rochester Institute of Technology, is one of four centers making up the Postsecondary Education Programs Network (PEPNet). PEPNet, through its four centers, creates effective and efficient technical assistance to postsecondary educational institutions, thereby providing access and accommodations to individuals who are deaf and hard of hearing.

Self Help for Hard of Hearing People, Inc. (SHHH) Bethesda, MD
301-657-2248 (V) 301-657-2249 (TTY)

SHHH promotes awareness and provides information about hearing loss, communication skills, assistive technology, and hearing aids through publications, exhibits, and training. SHHH works on a national level to affect public policy and legislation, and has local chapters nationwide.

RESNA Technical Assistance Project Arlington, VA
**Rehabilitation Engineering and Assistive
Technology Society of North America** 703-524-6686 (V) 703-524-6639 (TTY)

A federally funded endeavor that provides information and technical assistance on technology, related services, and devices for individuals with disabilities.

HEATH Resource Center Washington, D.C
**National Clearinghouse on Postsecondary
Education for Individuals with Disabilities** 202-939-9320 (V,TTY)
American Council on Education (ACE)

HEATH disseminates information nationally about disability issues in postsecondary education.

**Rehabilitation Research and Training for Persons
Who are Hard of Hearing or Late Deafened** San Diego, CA
619-554-1540 (V,TTY)
800-432-7619

This organization conducts research and develops training programs related to employment and personal adjustment of individuals who are hard of hearing or late deafened.