

# Deaf and Hearing-Impaired Resources

*Whatever you might think, you do have members, friends, and visitors to your centre with hearing impairments. Loss of hearing is generally agreed to be the most isolating of all physical disabilities. With our average age rising, this is a rapidly increasing issue in our sangha.*

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## What is loss of auditory acuity?

Hearing loss can span from having some degree of loss ranging from mild to profound to having a hearing loss of such severity that communication is not possible with auditory means.

People who are hard of hearing may use speech to communicate. They may or may not use personal hearing aids. Even if they have personal hearing aids, additional assistive listening devices may be required to access speech at a distance, on the phone, in noisy surroundings, and in other situations. Hard of hearing people supplement the auditory gaps by using speech reading and contextual clues.

People who are deaf do not depend on hearing for communication. Communication is completely dependent on visual information, including sign languages, which are specific to certain regions. In North America the language is American Sign Language.

### How to use this list

The Shambhala international working group on Accessibility and disability (A&D) is charged with helping and guiding accessibility efforts for both physical environments and electronic media. This list contains resources you may find useful in your accessibility journey. There are two other documents you might find useful: a brief introduction to the topic of hearing impairment ([link here](#)) and an accessibility checklist ([Link here](#)) appropriate for centres of various sizes. There are similar sets of documents for mobility disabilities and vision disabilities, with plans for more.

## General information

**For accommodating people with hearing impairments, rather than those who are deaf.**

- [Hearing Accessibility Handbook – A Guide for Congregations](http://uua.org/documents/shhh/hearingaccessibilityhndbk.pdf) at <http://uua.org/documents/shhh/hearingaccessibilityhndbk.pdf>
- [Communication Hints When You're Conversing with People who are Hard of Hearing](http://archive.uua.org/programs/idbm/accessibilities/disabilityresources_hearingcommunicationtips.html) at [http://archive.uua.org/programs/idbm/accessibilities/disabilityresources\\_hearingcommunicationtips.html](http://archive.uua.org/programs/idbm/accessibilities/disabilityresources_hearingcommunicationtips.html)
- [Hearing Survey for your Congregation](http://uua.org/documents/shhh/hearingsurvey.pdf) at <http://uua.org/documents/shhh/hearingsurvey.pdf>

Further Deaf & Hearing Impaired Organizations and Resources  
General

[Alexander Graham Bell Association For The Deaf](http://www.agbell.org) at <http://www.agbell.org>

Auditory-Verbal International  
3417 Volta Pl., NW, Washington, DC 20007  
Voice/TTY 202 337 5220  
Fax 202 337 8314

[agbell2@aol.com](mailto:agbell2@aol.com)

[American Association for the Deaf-Blind, Inc.](http://www.aadb.org) at <http://www.aadb.org>

Hearing-Vision Impaired Programs,  
[Laurent Clerc National Deaf Education Center](http://clerccenter.gallaudet.edu/InfoToGo/index.html) at <http://clerccenter.gallaudet.edu/InfoToGo/index.html>. Part of Gallaudet University,  
Continuing Education.

800 Florida Ave., NE, Washington, DC 20002. TTY/V 202 651 5242

[American Deaf Culture](http://www.signmedia.com/index.htm) at <http://www.signmedia.com/index.htm>

[American Sign Language -ASL Educational Community](http://www.aslpro.com) at <http://www.aslpro.com>. "We strive to provide free, easy-to-use reference and learning tools to enhance in-classroom learning for ASL Educators and their Students"

[American Sign Language -A Basic Dictionary of ASL Terms](http://www.masterstech-home.com/ASLDict.html) at <http://www.masterstech-home.com/ASLDict.html>

[National Technical Institute for the Deaf](http://www.ntid.rit.edu/) at <http://www.ntid.rit.edu/>

TTY & Voice 716 475 6700  
52 Lomb Memorial Dr., Rochester, NY 14623-5604

[National Association For The Deaf](http://www.nad.org) at <http://www.nad.org>

814 Thayer Ave., Silver Spring, MD 20910-4500 . Voice 301 587 1788  
TTY 301 587 1789(Fax 301 587 1791)

[National Center for Voice and Speech](http://www.ncvs.org) [www.ncvs.org](http://www.ncvs.org) 303 446 4834

1101 13th St., Denver, 80204 Fax 303 893 6487

[National Cued Speech Association](http://www.cuedspeech.org) at <http://www.cuedspeech.org>

National Information Center On Deafness at Gallaudet University, [Laurent Clerc National Deaf Education Center](http://www.clerccenter.gallaudet.edu/InfoToGo/index.html) TTY/V 202 651 5340  
800 Florida Ave., NE, Washington, DC 20002

[National Institute on Deafness and Other Communication Disorders](http://www.nidcd.nih.gov) at

<http://www.nidcd.nih.gov> Information Clearinghouse. 1 Communication Ave.,  
Bethesda, MD 20892-3456

Voice: 800 241 1044 Fax 301 907 8830

TTY 800 241 1055 [nidcd@aerie.com](mailto:nidcd@aerie.com)

[Hearing Loss Association of America \(HLAA\)](http://www.hearingloss.org)

<http://www.hearingloss.org> and at

<http://www.hearinglossweb.com/res/hlorg/shhh/shhh.htm>

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

7910 Woodmont Ave., Suite 1200,  
Bethesda, Maryland 20814

Voice 301 657 2248 TTY 301 657 2249

[Hearing Loss Web Resource Directory](http://www.hearinglossweb.com/res/res.htm) at <http://www.hearinglossweb.com/res/res.htm>

[Speechville Express](http://www.speechville.com) at [www.speechville.com](http://www.speechville.com)

If your child has difficulty with speech, language, communication, or is a late talker, we  
hope you will find the website helpful.

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

[Telecommunications For The Deaf \(TDI\)](http://www.tdi-online.org) at <http://www.tdi-online.org>

8630 Fenton St., Suite 604,

Silver Spring, MD 20910-3803

Maryland Relay Service 800 735 2258

(Fax 301 589 3797) TTY 301 589 3006

Resources for Accommodating People Who are Deaf and Hard of Hearing

Audiologist: Sangha member Carolyn Mandelker is an audiologist.

[cmandelker@shambhala.org](mailto:cmandelker@shambhala.org).

**ALD advice:** Sangha member Stefan Carmien has been active in audio work for 35 years and has set up assistive listening systems at seminars. He can give advice to centers on equipment.

carmien@gmail.com Now in San Sebastian, Spain. Was a researcher in the BIKa group at the Fraunhofer Institute for Applied Information Technology (FIT) in Sankt Augustin, Germany working on the EU4ALL project.

**[Disability 101: Deafness/Hearing Impairment](#)** from the **Unitarian**

**Universalist**, web at

<http://archive.uua.org/programs/idbm/accessibilities/disability3.html>

and at [Deafness / Hearing Impairment -Unitarian Universalist, Disability 101](#)

<http://uua.org/leaders/leaderslibrary/accessibility/disability101/hearingimpaired/index.shtml>

Shambhala Network Resources

**The Shambhala Network Group [Accessibility and Disability](#)** This includes the discussion topics:

[Closed-captioning law to change internet](#)

[Bande Annonce: Du silence à la lumière .Trailer: From Silence to light](#)

ADA victory over Wells Fargo for people who are deaf or hearing impaired or have speech disabilities

[Sign language discussion](#)

[Seeking stories from persons with hearing impairments](#)

[People who are Deaf or Hearing impaired -Please give me your feedback](#)

[This Is A BIG Deal For The Deaf Community](#)

[Closed Captioning of Online Teaching Videos Going Well](#)

[Captioning and Translating Teaching Videos](#)

**IF YOU KNOW OF OTHER RESOURCES THAT MIGHT BE HELPFUL** please email them to the Accessibility and Disability group at

[AandDWG@shambhala.org](mailto:AandDWG@shambhala.org)

**[Shambhala "Accessibility and Disability"](#)** web page at

[http://www.shambhala.org/members/share/viewarticle.php?art\\_id=231](http://www.shambhala.org/members/share/viewarticle.php?art_id=231)

**[Links to all Accessibility Best Practices postings](#)** at

[http://www.shambhala.org/members/share/viewarticle.php?art\\_id=275](http://www.shambhala.org/members/share/viewarticle.php?art_id=275).

This also viewable at [Shambhala Centre Resource](#)

Latest version of this file is available at **[Guidelines and Resources for Accommodating People Who Are Deaf and Hard of Hearing](#)** (DOC format). Rich Text format at **[Guidelines and Resources for](#)**

**[Accommodating People Who Are Deaf and Hard of Hearing \(RTF\)](http://www.shambhala.org/members/share/viewarticle.php?art_id=278)** at [http://www.shambhala.org/members/share/viewarticle.php?art\\_id=278](http://www.shambhala.org/members/share/viewarticle.php?art_id=278)

All disability but relevant to D& HI

See also these documents in the category [Guidelines and Resources](http://shambhalanetwork.org/groups/accessibility-and-disability/documents/?category=7514) (<http://shambhalanetwork.org/groups/accessibility-and-disability/documents/?category=7514>) of [Accessibility and Disability - Documents](#) on the [Shambhala Network](#):

- People Who Are Deaf and Hard of Hearing (MS Word DOC & Rich Text formats), Guidelines and Resources for Accommodating

Sound amplification is usually needed for people with hearing impairments.

Whatever you might think, you do have members, friends, and visitors to your center with hearing impairments.

# Ediquette

Disability 101: Resources -**Disability Etiquette**:

[http://archive.uua.org/programs/idbm/accessibilities/disabilityresources\\_etiquette.html](http://archive.uua.org/programs/idbm/accessibilities/disabilityresources_etiquette.html)

[Some Disability Etiquette Tips for Greeting People](http://archive.uua.org/programs/idbm/accessibilities/disabilityresources_etiquette.html) at

<http://uua.org/leaders/leaderslibrary/accessibility/disability101/26844.shtml>

More information at [Disability Etiquette](http://uua.org/leaders/leaderslibrary/accessibility/disability101/27055.shtml) at

<http://uua.org/leaders/leaderslibrary/accessibility/disability101/27055.shtml>

**“That All May Worship”**. Welcoming A Person Who Is Blind or Has Visual Impairment, pages 23-24.

**Welcoming People With Disabilities** in the book “That All May Worship”.

On pages 19 to 20 there is a general introduction and some ideas about improving personal interactions and widening hospitality. Brief but a good start. On pages 9-11 there are some other general suggestions that could be helpful.

## 1. **Disability Etiquette - from Unitarian Universalist Association**

[http://archive.uua.org/programs/idbm/accessibilities/disabilityresources\\_etiquette.html](http://archive.uua.org/programs/idbm/accessibilities/disabilityresources_etiquette.html)

Various guidelines covering a range of disabilities. Also more at

<http://uua.org/leaders/leaderslibrary/accessibility/disability101/27055.shtml>

**Disability 101: Resources. Disability Etiquette**

[http://archive.uua.org/programs/idbm/accessibilities/disabilityresources\\_etiquette.html](http://archive.uua.org/programs/idbm/accessibilities/disabilityresources_etiquette.html)

**Unitarian Universalist -The Bigger Picture** “These articles, some illuminating, some even disturbing, provide a place to start reflection and dialogue about “The Bigger Picture.” Includes “Annotated Listing of Resources” with links to the articles on different issues related to accessibility and disability. Including such things as The Politics of Disablement, the pros and cons of disability simulation in educating, the issues around the term “handicapped”, etc.

<http://uua.org/leaders/leaderslibrary/accessibility/disability101/27066.shtml>

**“That All May Worship”**. This has information on accommodating a wide range of disabilities. President Richard Reoch gave a copy of this to all the center directors he met with in his tour of Shambhala centers in the Fall of 2006.

This “assists congregations, national faith groups and seminaries in welcoming people with disabilities. This handbook is interfaith and concerns people with all types of disabilities. It is filled with common sense advice” It has many other suggestions for all the disability categories listed in the Phases of the Guidelines. In addition with all disabilities there are many attitudinal and behavioral problems that can unwittingly come from people who are not disabled. The book “That All May Worship” looks into some of these too.

To order this book (2007 \$15):

Go to link **National Organization on Disability** web site at [www.nod.org](http://www.nod.org) . Select Religion & Disability (left column, near the top). Scroll down to “Several publications, including our very popular That All May Worship” click on link. You should go to .

<http://www.nod.org/index.cfm?fuseaction=Feature.showFeature&FeatureID=99> and click on Order Form for N.O.D. Interfaith Guides

Or Go directly to [www.nod.org/resources/PDFs/rel\\_ordfrm.pdf](http://www.nod.org/resources/PDFs/rel_ordfrm.pdf)

The **Unitarian Universalist web site Disabilities 101** at

<http://uua.org/leaders/leaderslibrary/accessibility/disability101/index.shtml> or

<http://archive.uua.org/programs/idbm/accessibilities/disability.html> This web

site is intended for religious organizations. This has a great deal of very helpful information, suggestions, and resources covering many types of disabilities. Includes: • Visual • Hearing • Mobility • Chemical Sensitivities • Psychiatric • Invisible Disabilities •Etiquette • Access Checklist

2. **Disability Etiquette - from Unitarian Universalist Association**

[http://archive.uua.org/programs/idbm/accessibilities/disabilityresources\\_etiquette.html](http://archive.uua.org/programs/idbm/accessibilities/disabilityresources_etiquette.html) Various guidelines covering a range of disabilities. Also more at

<http://uua.org/leaders/leaderslibrary/accessibility/disability101/27055.shtml>

3. **Accessible Faith. A Technical Guide for Accessibility in Houses of Worship.**

<http://www.rrf.org/noteworthy/AccessibleFaith-final.pdf>

Retirement Research Foundation congregation's guide to accessibility, edited by sangha member Tom Golz while he was at Inspired Partnerships. Has a great deal of helpful information including "Accessibly Solutions for Houses of Worship", which includes specific designs, etc, for removing physical barriers and information on removing auditory and visual barriers. Also information on organizing, funding and many other related issues.

4. **Americans with Disabilities Act Facilities Compliance Workbook** Evan Terry Associates (Birmingham, Alabama) This resource addresses the legal issues regarding public accommodations, commercial facilities and those buildings connected with state and local governmental agencies and contains an overview of technical specifications, identifying elements along the exterior and interior accessible routes that might be considered as barriers for the disabled and provides simple, cost effective options for barrier removal. Available at: [www.evanterry.com](http://www.evanterry.com)

5. **Barrier Free Environments**, 919 782 7832; PO Box 30634, Water Garden, Highway 70 West, Raleigh, NC 27622
6. **Dimensions Of Faith: Architectural And Attitudinal Accessibility** Part of On the Road to Congregational Inclusion, list many publications [http://rwjms2.umdj.edu/boggscenter/products/DimmensionsofFaith/III\\_Architecture\\_Accessibility.pdf](http://rwjms2.umdj.edu/boggscenter/products/DimmensionsofFaith/III_Architecture_Accessibility.pdf)
7. **Interfaith Disability Connection.** <http://www.interfaithdisability.org> 678.365.0073 Includes a Disability Glossary of common disabilities at [http://www.interfaithdisability.org/congregational\\_disability\\_glossary.php](http://www.interfaithdisability.org/congregational_disability_glossary.php)
8. **DisabilityTraining.com**  
Expert Source for Over 600 Disability Videos, CDs, DVDs and Curriculum By Program Development Associates  
Disability training and multimedia solutions from the experts on Disability Awareness, Advocacy, Developmental and Learning Disabilities, and Special Education. PLUS Physical Disabilities, Mental Health, Assistive Technology and Vocational Rehabilitation. [www.disabilitytraining.com](http://www.disabilitytraining.com)
9. **Family Village Worship Center.** This Center includes religious/faith/spiritual resources for those who have disabilities.  
[www.familyvillage.wisc.edu/worship.htm](http://www.familyvillage.wisc.edu/worship.htm)
10. **HalfthePlanet Foundation:** “The Disability Resource.” “A nonprofit organization that supports the application of technology to promote the values of the Americans with Disabilities Act (ADA)— independent living, social inclusion, equality of opportunity, economic self-sufficiency, and empowerment.” Available at [www.halftheplanet.org](http://www.halftheplanet.org) or 1875 Eye St., NW 12th Floor, Washington, DC 20006.
11. **Unitarian Universalist -The Bigger Picture** “These articles, some illuminating, some even disturbing, provide a place to start reflection and dialogue about “The Bigger Picture.” Includes “Annotated Listing of Resources” with links to the articles on different issues related to accessibility and disability. Including such things as The Politics of Disablement, the pros and cons of disability simulation in educating, the issues around the term “handicapped”, etc.  
<http://uua.org/leaders/leaderslibrary/accessibility/disability101/27066.shtml>
12. **Unitarian Universalist -Access Checklist for Meeting and Conference Planning**  
<http://uua.org/leaders/leaderslibrary/accessibility/disability101/26842.shtml>

**Unitarian Universalist -Accessibility Information to Include in Your Printed Announcements**

<http://uua.org/leaders/leaderslibrary/accessibility/disability101/27056.shtml>



## Legal & funding

Funding Approaches Resources

**Money and Ideas. Creative Approaches to Congregational Access.** A new booklet from the National Organization on Disability. 36 pp. Drawn from stories from congregations participating in the Accessible Congregations Campaign, this booklet describes creative initiatives and fundraising strategies used by 50 congregations to become more accessible to people with all types of disabilities. These congregations, though limited in funds, serve as models of inclusion and hospitality. \$3.50 each. or download from

<http://www.congregationalresources.org/MoneyAndIdeas.pdf>

**Accessible Faith. A Technical Guide for Accessibility in Houses of Worship.**

<http://www.rtf.org/noteworthy/AccessibleFaith-final.pdf>

Has a section "Fundraising for Accessibility"

Shambhala Center Initiatives.

Some centers in Canada are looking into applying for the government grants. Information will be made available to other centers as this progresses.

In Chicago there is a local foundation that will support "houses of worship" become accessible. There may well be similar help available in other cities and it may be worthwhile for centers to research this.

The Victoria Shambhala Centre (BC). Fund raising is underway via a cash back program with a local grocery store (Thrifty Foods).

The St. Margaret's Bay Shambhala Centre has received a grant for the Canadian government to improve accessible. See also [The Government of Canada improves accessibility for Canadians](http://news.gc.ca/web/article-eng.do?nid=499999) at <http://news.gc.ca/web/article-eng.do?nid=499999> and how the St. Margaret's Bay center has been

***Accommodating Practitioners with Multiple Chemical Sensitivities*** in [Accessibility and Disability -Documents](#) on the [Shambhala Network](#). This also viewable at [Shambhala Centre Resource](#) at

<http://www.shambhala.org/members/cr/>.

[http://www.shambhala.org/members/share/viewarticle.php?art\\_id=140](http://www.shambhala.org/members/share/viewarticle.php?art_id=140)

## Design and accessibility

### 13. **International Codes Council. Guidelines for Accessible Useable Buildings and Facilities.** ICC ANSI A117.1 (2003 or 1998)

Order at 1 800 768 4452 [www.iccsafe.org/e/category.html](http://www.iccsafe.org/e/category.html) (Follow "Accessibility" link on left)

"...disability definitions are not rationally determined but socially constructed. Despite the objective reality, what becomes a disability is determined by the social meanings individuals attach to particular physical and mental impairments." Michael Oliver. Quoted at <http://uua.org/leaders/leaderslibrary/accessibility/disability101/index.shtml>

From "The Politics of Disablement" at <http://www.leeds.ac.uk/disability-studies/archiveuk/Oliver/p%20of%20d%20Oliver6.pdf>

### 14. **Rocky Mountain Disability & Business Technical Assistance Center,** Provides informal information & guidance with ADA compliance & enforcement. 3630 Sinton Road, Suite 103, 800 949 4232 ; Colorado Springs, CO 80907 (locally 719 444 0268) or [www.adainformation.org](http://www.adainformation.org) or [www.adainfonet.org](http://www.adainfonet.org)

### **Accessibility & Universal Design**

<http://www.disabilityinfo.gov/digov-public/public/DisplayPage.do?parentFolderId=5173>

If this doesn't work, enter Accessibility and or Universal Design into the search box at <http://www.disability.gov/search/list>

### **Center for Universal Design, College of Design, North Carolina State University**

<http://www.design.ncsu.edu/cud/>

The Center for Universal Design (CUD) is a national information, technical assistance, and research center that evaluates, develops, and promotes accessible and universal design in housing, commercial and public facilities, outdoor environments, and products. Our mission is to improve environments and products through design innovation, research, education and design assistance.

### **ADA Accessibility Guidelines for Buildings and Facilities (ADAAG)**

<http://www.access-board.gov/adaag/html/adaag.htm>

### **A Colorado Home Is Ready for Its Owners' Old Age**

NY Times February 18, 2009 Cynthia Leibrock's house was designed to ease the process of growing old. In Livermore, Colorado.

[http://www.nytimes.com/2009/02/19/garden/19colorado.html?\\_r=1&sq=joyce%20wadler%20accessibility&st=cse&scp=1&pagewanted=all](http://www.nytimes.com/2009/02/19/garden/19colorado.html?_r=1&sq=joyce%20wadler%20accessibility&st=cse&scp=1&pagewanted=all)

See also Cynthia@AgingBeautifully.org or call Green Mountain Ranch at 970 484-4182. <http://agingbeautifully.org/ranch>

**Bringing Égalité Home** — New York Times. Universal design makes homes adaptable. In a house outside Paris, Jean-Yves Prodel, who uses a wheelchair, is living comfortably thanks to innovative renovations for which he will get a Universal Design Award in March.

<http://www.nytimes.com/2009/02/19/garden/19france.html?ref=garden>

Signing & captioning

**Ten Tips for Using a Sign Language Interpreter** at  
<http://uua.org/leaders/leaderslibrary/accessibility/disability101/hearingimpaired/26846.shtml>

[American Sign Language](http://www.nidcd.nih.gov/health/hearing/asl.asp) at <http://www.nidcd.nih.gov/health/hearing/asl.asp>  
from National Institute on Deafness and Other Communication Disorders

[Purple Language Services](http://www.signlanguage.com) at <http://www.signlanguage.com>. Sign language interpreter services, “provides community interpreting, video remote interpreting (VRI), and communication access real-time translation (CART).

[Sign Language Associates](http://www.signlanguageassociates.com) at <http://www.signlanguageassociates.com>

Convert spoken language into text: Speech recognition software, see below, is generally a good option here. See also “Closed Captioning of Teaching Videos” Telecommunications Relay Services above

This has some general information and links to resources may be useful:

- **Ten Tips for Using a Sign Language Interpreter** at  
<http://uua.org/leaders/leaderslibrary/accessibility/disability101/hearingimpaired/26846.shtml>
- [Handling Relay Operator Calls](http://uua.org/leaders/leaderslibrary/accessibility/disability101/hearingimpaired/26934.shtml)  
<http://uua.org/leaders/leaderslibrary/accessibility/disability101/hearingimpaired/26934.shtml>

## Just technical

“VRI uses videoconferencing technology, equipment, and a high speed Internet connection with sufficient bandwidth to provide the services of a qualified interpreter, usually located at a call center, to people at a different location.” From [National Association of the Deaf](http://www.nad.org/issues/technology/vri), at <http://www.nad.org/issues/technology/vri>.

One such service in the US and Canada is [SignOn](#) (Toll Free: TTY/Voice 1-866-688-7100). They say “Instead of having an interpreter physically present with the deaf and hearing parties, the interpreter is located at SignOn’s offices and facilitates communication remotely, saving the cost of mileage, travel time, and two-hour minimums. Use your own video device or choose from a selection of SignOn tested and approved video/audio equipment.”

Real-time transcribing of talks, events, presentations, etc.  
See also “**What is Real-Time Captioning?**” below.

For transcribing and or captioning of live or recorded talks, speech recognition software might work. Depending on the accuracy this could also involve the use of what is called a “shadow speaker”, who listens to everything that is said in a talk or video, and repeats it in his/her own voice. This allows the speech recognition software to be tightly trained onto the shadow speaker’s voice patterns, enabling reasonably good accuracy.

Although most real-time captioning has been estimated to be well over ninety percent accurate, the audience will see occasional errors. The captioner may misunderstand a word, hear an unfamiliar word, or there may be an error in the software dictionary.

For more information on captioning consult the DO-IT Knowledge Base articles [How can people who are deaf access video and multimedia products?](#), [Is there a way to add captions to a video that is already published?](#), and [Where can I find vendors who provide captioning services?](#)

Telecommunications Relay Services

**Dial 711 for Relay in any US state.**

[Facts About Telecommunications Relay Services](#) at

<http://www.nidcd.nih.gov/health/hearing/telecomm.asp>

An overview of telecommunications relay services (TRS) including a discussion of the Americans with Disabilities Act (ADA) and 711 access instructions. National Institute on Deafness and Other Communication Disorders

- [Handling Relay Operator Calls](#) (It's Not As Complicated As You Think)  
<http://www.uua.org/leaders/idbm/accessibility/disability101/hearingimpaired/26934.shtml>

TTY/TDD

Often less practical these days if there is a computer with e-mail/chat/msn messenger capability in the center that a deaf person can use instead of a telephone? Perhaps with a Braille receiver. Cell phones with text messaging could be used as well.

What is Relay Service

**Dial 711 for Relay in any US state.**

Telecommunications Relay Service (TRS) is a telephone service that allows persons with hearing or speech disabilities to place and receive telephone calls. TRS is available in all 50 states, the District of Columbia, Puerto Rico, and the U.S. territories for local and/or long distance calls.

TRS uses operators, called communication assistants (CAs), to facilitate telephone calls between people with hearing loss and/or speech disabilities and other individuals. A TRS call may be initiated by either a person with a hearing or speech disability, or a person without such a disability, with the CA serving as the link for the call.

**What is Relay Service?** Relay communications service provides full telephone accessibility to people who are deaf, hard of hearing or with speech disabilities. Specially trained relay agents complete all calls and stay on-line to relay messages either electronically over a Telecommunications Device for the Deaf (TDD), or verbally to hearing parties.

The service is available 24 hours a day, 365 days a year, with no restrictions on the length or number of calls placed. This valuable communications tool gives all individuals who are deaf, hard of hearing or with speech disabilities the opportunity to make personal and business calls just like any other telephone user.

Both TDD and voice users may initiate calls.

**Customers' Communications Options.** Relay Service provides optional ways for your call to be handled. When communicating with a relay agent, you may request one of the following:

§ Ask the agent to type and speak exactly what is said. (Result: The agent will reproduce the exact conversation.)

§ Ask the agent not to announce your call. (Result: The agent will not initially ask the called party if he or she has ever received a relay call, and will not explain the service.)

§ Ask the agent to use Voice Carry-Over. (Result: This provides direct communication when 'callers who are deaf, hard of hearing or speech with disabilities use their own voice or hearing.)

[TDD or TTY Etiquette](#)

(<http://www.evanterry.com/img.asp?dl=1&t=2&id=24427>)

**What is a TTY?**

<http://www.abouttty.com/>

**TTY** stands for Text Telephone. It is also sometimes called a TDD, or Telecommunication Device for the Deaf. TTY is the more widely accepted term, however, as TTYs are used by many people, not just people who are deaf.

A TTY is a special device that lets people who are deaf, hard of hearing, or speech-impaired use the telephone to communicate, by allowing them to type messages back and forth to one another instead of talking and listening. A TTY is required at both ends of the conversation in order to communicate.

To use a TTY, you set a telephone handset onto special acoustic cups built into the TTY (some TTY models can be plugged directly into a telephone line). Then, type the message you want to send on the TTY's keyboard. As you type, the message is sent over the phone line, just like your voice would be sent over the phone line if you talked. You can read the other person's response on the TTY's text display.

If you don't have a TTY, you can still call a person who is deaf, hard of hearing, or speech-impaired by using the Telecommunications Relay Service (TRS). With TRS, a special operator types whatever you say so that the person you are calling can read your words on his or her TTY display. He or she will type back a response, which the TRS operator will read aloud for you to hear over the phone. Toll free TRS services are available 24 hours a day, 365 days a year.

You can visit the Ultratec website for information about a wide range of TTYs for home, office and personal use. Or, visit WCI for all your assistive device needs, including the CapTel (Captioned Telephone).

<http://www.abouttty.com>

### **Deaf Telephone Services**

**In USA: Quest TTY/TDD800 223 3131** Mon.–Fri. 7.30 pm–5.00 pm (MT).

State to State/ International TTY 800 659 2556. From outside US

605 224 1837

[Relay Colorado](#) TTY 800 659 2656. Voice 800 659 3656. ASCII 800 659 46461099 18<sup>th</sup> St., Suite 1400, Denver, 80202

### **Equipment**

See examples at:

[http://www.twacomm.com/catalog/dept\\_id\\_178.htm?gclid=CPzrmvH2\\_60CFQwzhwodNk0luw](http://www.twacomm.com/catalog/dept_id_178.htm?gclid=CPzrmvH2_60CFQwzhwodNk0luw)

[www.enablemart.com/TTD-TTY](http://www.enablemart.com/TTD-TTY)

<http://www.relaysd.com/Equipment.aspx>

Equipment Resources for People who are Deaf

[Hearing Loss Web Resource Directory](#) at

<http://www.hearinglossweb.com/res/res.htm>

Speech Recognition Software

For general information see **Convert spoken language into text** above.

**Windows Vista & Windows 7** have a built in speech recognition tool. With this you can write documents or control the computer with voice alone. Click the Start button, click Control Panel, clicking Ease of Access, and then click Ease of Access Center. There is information on this at [Use the computer without the mouse or keyboard](http://windows.microsoft.com/en-us/windows7/Use-the-computer-without-the-mouse-or-keyboard-alternative-input-devices) at <http://windows.microsoft.com/en-us/windows7/Use-the-computer-without-the-mouse-or-keyboard-alternative-input-devices> There are many good accessibility tools available through the

[Ease of Access Center](http://windows.microsoft.com/en-US/Windows7/Make-your-computer-easier-to-use) described at that link which is at <http://windows.microsoft.com/en-US/Windows7/Make-your-computer-easier-to-use>.

### **Apple Speech Recognition**

“Speakable Items, built into Mac OS X and located in the Speech pane of System Preferences, lets you control the computer using your voice instead of the keyboard. And you don’t have to train your Mac to use it. You can use Speakable Items to navigate menus and enter keyboard shortcuts; speak checkbox names, radio button names, list items, and button names; and open, close, control, and switch among applications.

If you want to perform speech dictation on your Mac, you can use an application from MacSpeech called [Dictate](#) (sold separately).” (\$199.00 as of 11<sup>th</sup> April 2010) At the bottom of [Physical and Motor Skills](#). See **MacSpeech Dictate** and **MacSpeech Scribe** below.

### **Dragon Naturally Speaking** (\$199) at

<http://www.nuance.com/naturallyspeaking/products/editions/preferred.asp>

In response to my question “Does that need a lot of “training” with each individuals voice before it is useable? I suspect the training part is not very practical when it comes to transcribing several different teachers’ talks.”

Sangha member Harald Dienes replied:

I have not installed Dragon version 10 yet. “I have played around a little with older versions and my first impressions were decent even without training but to get to the tested accuracy of 95+% of Dragon 10 you need to train it to your voice. Nuance charges a license fee for each training file so this could add up.

A possibility would be to listen to a talk that needs to be transcribed on the head phones, then dictate what you have heard to your recorder or a USB soundcard [http://andreaelectronics.com/Buy/ProductDesc/USB-SA\\_array\\_bundle.htm](http://andreaelectronics.com/Buy/ProductDesc/USB-SA_array_bundle.htm) and then use Dragon with your voice-trained file to turn it into text. For some more info check the last message in this thread (*now at*

[NaturallySpeaking Speech Recognition](#) at

<http://www.knowbrainer.com/PubForum/index.cfm?page=viewForumCategory&categoryid=2>) (*KnowBrainer Speech Recognition Forums*). I will spend more time with it in the coming months and can let you know.

**Dragon Dictation.** Currently (5<sup>th</sup> April 2010) this is a free App for **iPhone**.

**iPod Touch** and **iPad** “an easy-to-use voice recognition application powered by Dragon® NaturallySpeaking® that allows you to easily speak and instantly see your text or email messages. In fact, it’s up to five (5) times faster than typing on the keyboard.” Compatible with iPhone. iPod Touch and iPad The app makes it easy for you to dictate notes, e-mails or text messages, which are then instantly converted to text.” “download this before the free goes away”

<http://www.dragonmobileapps.com> and [Dragon Dictation for iPhone, iPod touch, and iPad on the iTunes](#)

It is reported to be generally very accurate even without training. It might be possible to provide an iPhone. iPod Touch or iPad to people at talks in certain cases.



**MacSpeech Dictate** (\$199.00) at <http://www.macspeech.com>. “Unparalleled Speech Recognition for Your Mac. Built upon the renowned Dragon Naturally Speaking engine and now a full-fledged member of the Nuance product family, MacSpeech Dictate provides an astounding accuracy rate of up to 99% and works seamlessly with the Mac applications you already own and use.” **MacSpeech Scribe** at <http://www.macspeech.com/pages.php?pid=181> (\$149.00)

**IBM ViaVoice Pro** (Voice recognition product) (\$189.99) Like Dragon Naturally Speaking (which has now replaced it) this is was by Nuance. It is no longer produced and they only offer tech support for this for Operating Systems up to Windows XP service pack 1. <http://www.amazon.com/Voice-v-10-0-Pro-USB-Edition/dp/B0000A58IX>

**e-Speaking Voice Recognition Software** at <http://www.e-speaking.com>. (Speech Recognition) **Free** to download. e-Speaking offers desktop command and control speech recognition software compatible with and complementary to Windows XP and Windows 2000.

**Sphinx 3.5 speech recognition engine** at <http://sourceforge.net/projects/cmusphinx> **Free** Speech Recognition Software The CMU Sphinx is a free speech recognition software program and is open source too. Sphinx is a speaker-independent large vocabulary continuous speech recognizer released under a BSD style license. It is also a collection of open source tools and resources that allows researchers and developers to build speech recognition systems.

**tazti Speech Recognition Software** for Windows XP 1.1.2. **Free** software. at [http://download.cnet.com/tazti-Speech-Recognition-Software-for-Windows-XP/3000-7239\\_4-10702965.html](http://download.cnet.com/tazti-Speech-Recognition-Software-for-Windows-XP/3000-7239_4-10702965.html)

**AEGIS RapidText** “offers voice-to-text solutions, particularly transcription, real-time and offline captioning, and translation and subtitling services, with focus on accuracy, quality and fast turnaround.” 1 800 332 0266 [http://www.aegisglobal.com/section\\_level2.aspx?cont\\_id=c/8KEO4Xx2o=](http://www.aegisglobal.com/section_level2.aspx?cont_id=c/8KEO4Xx2o=)

ALD Suppliers

Prices quoted are mostly from **2007**

### **Portable PA system**

There are probably a variety of these on the market. They need to be relatively easy to move around. These can be very helpful to many. One used at Naropa University is the Passport Deluxe PD 250. (With Docking Connector for Wireless Receiver). A bit bulky. The cost is approx \$300 in 2006, in 2010 about \$599). The manufacture is [Fender](#).

### **Induction Loop Amplification**

**Phonak iCom personal Inductive loops.** [iCom - The communication interface](#) at <http://www.phonak.com/us/b2c/en/products/accessories/communication/icom/>

overview.html\ [Phonak](http://www.phonak.com/us/b2c/en/home.html) at <http://www.phonak.com/us/b2c/en/home.html>

[Oval Window Audio](http://www.ovalwindowaudio.com) at <http://www.ovalwindowaudio.com>

33 Wildflower Court, Nederland, Colorado 80466. United States

303-447-3607 VT TT 303-447-3607 VT Fax 303-447-3607

[info@ovalwindowaudio.com](mailto:info@ovalwindowaudio.com)

<http://www.ovalwindowaudio.com/satellitespec.htm> Satellite III — Most Popular Large Area Induction Loop System (\$895 in 2010)

<http://www.ovalwindowaudio.com/satellite.html> includes one receiver with Lightweight stereo headphones included (ear buds available) Additional receivers are \$99.95 each. A 500-foot spool of loop wire (actual loop size should not exceed 325 feet).

MICROLOOP & MICROLOOP FM

[Microloop II, Microloop II FM, Microloop II Dual FM - Portable and Easy To Use](http://www.ovalwindowaudio.com/microloop.htm) at <http://www.ovalwindowaudio.com/microloop.htm> are small, portable

induction loop amplification systems designed for TV viewing, classrooms, meetings, and automobiles (with optional auto kit). These units will connect to existing public address systems.

[Centrum Sound Systems](http://www.centrumsound.com) at <http://www.centrumsound.com>

Assistive Listening Systems and Devices for Educational Institutions, Houses of Worship and General ADA Compliance. 572 La Conner Drive, Sunnyvale, California 94087. United States

408-736-6500 Fax 408-735-6552 [info@centrumsound.com](mailto:info@centrumsound.com) **OTICON** LA35-

4M (looks like induction loop has been Discontinued) a large area induction loop amplifier which covers up to 4500 sq. feet. It is equipped with a built-in mixer which enables up to four mic/line inputs to be connected at one time.

Separate bass and sensitivity adjustments for eac...[More Information]

[Teltex, Inc](http://www.teltexinc.com) at [www.teltexinc.com](http://www.teltexinc.com)

404 E 13th Ave.

N. Kansas City, MO 64116

On the Web: Site:

Email: [info@teltexinc.com](mailto:info@teltexinc.com)

[FM and Loop Systems](http://www.teltex.com/viewCategories.asp?idCategory=12) at

<http://www.teltex.com/viewCategories.asp?idCategory=12>

TOLL FREE TTY/VOICE: (888) 515-8120

Voice/TTY (816) 221-6316 • Fax (816) 221-6830

[Wireless Hearing Solutions](http://www.wirelesshearingsolutions.com) at <http://www.wirelesshearingsolutions.com>

Telefield loop systems by Phonic ear

888 224-4988 707 539 3897

PL150 Teleloop Amplifier. 600 square feet up to 1600 square feet

\$1300-1600 will work with personnel hearing aids with "T" coil/telecoil or receivers with ear buds or headphone approx \$200 each (Hearit receivers).

12 gage wire around the whole room

## **FM Systems**

**Williams Sound Hearing Assistance Products** at

<http://www.williamssound.com/productlist.aspx>

Also at [Pro Audio Super store](#).

Stefan Carmien mentioned February, 2010 "I have the permission to go ahead and purchase a Williams TGS whisper system for simultaneous translation and hearing support (*for Dechen Choling*). Take a glance: [Hearing Helper® FM Tour Guide System with 20 receivers, 863 MHz MSRP](#) at [http://www.williamssound.com/productdetail.aspx?product\\_id=367](http://www.williamssound.com/productdetail.aspx?product_id=367) . "The Tour Guide System is a portable, multi-channel, FM communication system for guided tours, language interpretation, and hearing assistance applications. The guide uses the T863 transmitter equipped with a microphone to deliver their message wirelessly to a group of participants. Listeners use the R863 receiver equipped with an earphone or headphone to pick-up the guide's message. The system helps to overcome background noise, distance from the speaker, and enhances the quality of the tour or language service for all participants. The system operates on 863 MHz, meets RoHS approval guidelines, and is backed by a 3 year factory warranty." It comes with 20 receivers.

He is also looking into possibly adding a Phonak iCom personal Inductive loops. [iCom - The communication interface](#) at

<http://www.phonak.com/us/b2c/en/products/accessories/communication/icom/overview.html>. [Phonak](#) at <http://www.phonak.com/us/b2c/en/home.html>

Williams Sound PPA 375. Price: \$1100-\$1250 (2010) (FM)

1 hearing assistance transmitter and 4 receivers. \$110 power receiver

PPA VP Value Pack PPA System, T17 Transmitter, 4 Receivers, Ch E

Williams Sound PPA 575 Price: \$999.00

1 hearing assistance transmitter with 77 selectable narrow-band channels and 4 receivers.

Williams Sound PFM 300 "Personal hearing helper includes a mini lapel clip microphone and FM transmitter. Our Price: \$418.78" (2007) at

<http://www.audiolinks.com/ADAcompliant.shtml>

Williams Sound Dual Mic FM System [PFM 350]

**ADOC Hearing Products** at <http://www.adcohearing.com/ald.html>

Contact Information: 4242 South Broadway, Englewood, CO 80113

Phone: (800) 726-0851 Phone: (303) 794-3928 Fax: (303) 794-3704

[sales@adcohearing.com](mailto:sales@adcohearing.com)

Hearing Helper PFM 350 (\$550 in 2010)

"The *Hearing Helper PFM 350* system operates over a distance of 150 feet making it ideal for classrooms, meetings, conferences and trainings.

Receivers can be used with a hearing aid, earphones, headphones, or custom earmolds to suit a wide range of hearing losses." Not clear how many receivers are included, but the picture on the web site shows two. "The Hearing Helper PFM 300 is the same as Hearing Helper PFM 350 (below) except that the receiver (R32) does not have the environmental microphone to pick up nearby sounds."

Personal PA 375 FM System \$998.00 (2007)

"Operating up to 1000 feet, the T35 is ideal for auditoriums, stadiums, theaters, or other large venues where superior coverage area is essential.

The PPA 375 comes complete with four stylized single-channel R35 receivers (earphones and batteries included)."

Value Pak PPA VP

[Comtek](http://www.comtek.com) at <http://www.comtek.com>

[Assistive Listening](#) and [Personal Communications](#) (which includes Wireless Tour Guide and Language Interpretation)

There are no prices shown on their web page, but they sent me a price list with over 20% discounts, probably because I said I was with a church.

In 2007 they had: CC\_216 \$2000 "is a digitally synthesized assistive listening system designed for permanent installation to provide wide area coverage.

This system includes the BST-25/216 base station transmitter and the PR-216 personal receiver." Additional receivers seem to be about \$550.

The CC-75 \$990. "features the new PR-75 Auto-Select tuning receiver, and operates in the traditional 72 - 76 MHz range for assistive listening applications. Perfect for permanent installation in churches, theaters, and schools." Additional receivers seem to be about \$250.

The CC-72M I could not find a price for this one "is a single channel large area assistive listening system for use in churches, theaters, and auditoriums. This system incorporates the M-72 Type BS base station transmitter and the PR-72b personal receiver."

[Teltex, Inc](http://www.teltexinc.com) at [www.teltexinc.com](http://www.teltexinc.com)

404 E 13th Ave.

N. Kansas City, MO 64116

On the Web: Site: [www.teltexinc.com](http://www.teltexinc.com)

Email: [info@teltexinc.com](mailto:info@teltexinc.com)

[FM and Loop Systems](#)

TOLL FREE TTY/VOICE: (888) 515-8120

Voice/TTY (816) 221-6316 • Fax (816) 221-6830

The University of Colorado uses Comtek and William Sounds for personal FM system and Comtek for group FM system (e.g., commencement, theater, a large group, etc.). These are all pretty expensive from about \$500 to over \$1000 (2007).

### **Infrared**

In most cases these are probably not practical for Shambhala Centers.

[Audex Infrared/Assistive Listening Systems](#) at

<http://www.audex.com/infrared.html>

[Williams Sound Large Area Infrared Products](#) at

<http://www.williamssound.com/productlist.aspx#A2>

[Listen Technologies Corporation](http://www.listentech.com) at <http://www.listentech.com>

System includes installation with 4 receivers \$2310, with 8 receivers \$4400

The LA-140 IR radiator/emitter \$795, receiver about \$199 (in 2007).

**Toll-Free:** 1.800.330.0891 (USA & Canada)

"offering a great range of solutions for language interpretation and/or assistive

listening for theaters, boardrooms, meeting/training facilities, houses of worship, tour group communications and more.”

## From Shambhala Interational

Deaf & hearing SI sites:

<http://shambhalanetwork.org/forums/tag/hearing-impaired/>  
<http://shambhalanetwork.org/forums/tag/deaf/>

Almost all the videos either have closed captions or subtitles at:

[The Vidyadhara, Chögyam Trungpa Rinpoche -Official Channel](http://www.youtube.com/user/TrungpaRinpoche)  
(<http://www.youtube.com/user/TrungpaRinpoche>).

&

[Sakyong Mipham Rinpoche -Official YouTube Channel](http://www.youtube.com/user/officialsakyong)  
(<http://www.youtube.com/user/officialsakyong>

Much more information: Discussion topics and files at:

The Shambhala Network Group [Captioning and Translating Teaching Videos](#)

This has a number of documents related to this on the [Captioning and](#)

[Translating Teaching Videos](#) Files:

**CC Video Teachings** (<http://shambhalanetwork.org/groups/captioning-and-translating-teaching-videos/documents/?category=7517>). There are several documents whose names start with this phrase which cover different aspects of Closed Captioning. Also in the [Accessibility and Disability](#) group at <http://shambhalanetwork.org/groups/accessibility-and-disability/documents/?category=8976> .

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**The Shambhala Network Group [Captioning and Translating Teaching Videos](#)**

Meditation Instruction for the Deaf-Blind  
Diversity and Accessibility: Best Practice  
[Meditation Instruction for the Deaf-Blind](#) at

[http://www.shambhala.org/members/share/viewarticle.php?art\\_id=146](http://www.shambhala.org/members/share/viewarticle.php?art_id=146)

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