Universal Design, the Library, and Assistive Adaptive Technologies
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The purpose of this poster presentation is to raise awareness of universal design in libraries and provide resources to assist librarians implement universal design. While most people think of universal design as principles applied to the physical world – buildings, sidewalks, and public spaces. However the principles of universal design may be applied to other areas – learning, information, and services. We have chosen to focus on three areas that we feel best encompass a library – the physical environment, access to information and service.

However, each library will have its own characteristics, collections, and services that must be evaluated on a case by case basis.

Universal Design in Physical Environment

Universal design is usually first thought of in relationship to the physical world – curb cuts, automatic door openers, unobstructed pathways, etc. For libraries it is important for an individual with disabilities to have equal access to the entire library. Some examples of physical environment accessibility in libraries include:

- check out desk at multiple heights to accommodate individuals using wheelchairs,
- aisle between shelves at least 36” wide and unobstructed with enough room to turn a wheelchair around at both ends,
- computer stations at multiple heights to accommodate patrons using wheelchairs or patrons who need to stand rather than sit, and
- ensuring individuals with visual impairments know when furniture has been moved or relocated.

Here are some resources:

- Center for Universal Design – www.ncsu.edu/project/design-projects/udi
- Universal Design.com – www.universaldesign.com
- Institute for Human Centered Design – www.humancentereddesign.org
Universal Design in Information

Universal design in learning, or universal curriculum design, encompasses universal design of and access to information. Not all of the information in a library can be made accessible without an unlimited budget and an unlimited staff. But an effort should be made to ensure that materials created by the library—signs, brochures, and other printed materials—be available in a variety of formats—large print, PDF or Word files, and audio (if requested)—and be written at the appropriate reading level for the library patrons. Some examples of accessible information in a library setting include:

- signs that are easily legible by individuals with visual impairments,
- access to e-books in multiple formats—PDF, Daisy, and live audio recordings,
- screen readers on computers for individuals with visual impairments,
- access to real-time interpreters through videophones for individuals with hearing impairments, and
- following guidelines for font, color, and point size on handouts and newsletters to ensure easy readability.

Here are some resources:
CAST — www.cast.org/udl/
National Center on Universal Design for Learning — www.udlcenter.org
Do-It - www.washington.edu/doit/
Lighthouse International — www.lighthouse.org

Universal Design in Service

Universal design in service is ensuring that the services provided to individuals with disabilities are appropriate for the individual through the use of People First Language and disability etiquette. The disability rights movement parallels the civil rights movement campaigning for equality and inclusion in society. Speaking and writing about individuals with disabilities requires respect. One way is to ensure that library staff speaks respectfully about individuals with disabilities is through the use of People First Language. People first language puts the person first and the condition second. For example:

- instead of “he’s autistic” say “he has autism”,
- instead of “he’s retarded” say “he has a cognitive disability”,
- instead of “she’s wheelchair bound” say “she uses a wheelchair”, and
- instead of “he’s crippled” say “he has a physical disability”.

Also it’s important to be respectful of an individual with disabilities physical space and their communication abilities. For example:

- look at and speak directly to the person with the disability not their companion, care-taker, or interpreter,
- be attentive and patient when conversing with an individual who has difficulty speaking,
• don’t automatically assist a person with a disability, ask first,
• don’t pet or feed service animals when they are working, and
• when meeting someone with a visual impairment be sure to identify yourself.

Here are some resources:
• Disability is Natural – www.disabilityisnatural.com
• Interacting with People with Disabilities – www.uiaccess.com
• Office of Disability Employment Policy – www.dol.gov/odep/
• Easter Seals – Disability Etiquette – www.easterseals.com
• United Spinal Association – Disability Etiquette –
  www.unitedspinal.org/pdf/DisabilityEtiquette.pdf

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The font used in the title of this poster is called Open-Dyslexic and was created by
Abelardo Gonzalez to help dyslexic readers. The characters are bottom heavy and the
unique character shapes help prevent letters and numbers from being confused.

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Universal Design is the design of products and environments to be usable by all people, to the greatest extent possible, without the need for adaption or specialized design.

There are seven principles of Universal Design.

**Equitable Use**
- The design is useful and marketable to people with diverse abilities.
  - Provide the same means of use for all users: identical whenever possible; equivalent when not.
  - Avoid segregating or stigmatizing any users.
  - Make provisions for privacy, security, and safety equally available to all users.
  - Make the design appealing to all users.

**Flexibility in Use**
- The design accommodates a wide range of individual preferences and abilities.
  - Provide choice in methods of use.
  - Accommodate right or left handed access and use.
  - Facilitate the user's accuracy and precision.
  - Provide adaptability to the user's pace.

**Simple and Intuitive Use**
- Use of the design is easy to understand, regardless of the user's experience, knowledge, language skills, or current concentration level.
  - Eliminate unnecessary complexity.
  - Be consistent with user expectations and intuition.
  - Accommodate a wide range of literacy and language skills.
  - Arrange information consistent with its importance.
  - Provide effective prompting and feedback during and after task completion.

**Perceptible Information**
- The design communicates necessary information effectively to the user, regardless of ambient conditions or the user's sensory abilities.
  - Use different modes (pictorial, verbal, tactile) for redundant presentation of essential information.
  - Maximize "legibility" of essential information.
  - Differentiate elements in ways that can be described (i.e., make it easy to give instructions or directions).
  - Provide compatibility with a variety of techniques or devices used by people with sensory limitations.
Tolerance for Error
- The design minimizes hazards and the adverse consequences of accidental or unintended actions.
  - Arrange elements to minimize hazards and errors: most used elements, most accessible; hazardous elements eliminated, isolated, or shielded.
  - Provide warnings of hazards and errors.
  - Provide fail safe features.
  - Discourage unconscious action in tasks that require vigilance.

Low Physical Effort
- The design can be used efficiently and comfortably and with a minimum of fatigue.
  - Allow user to maintain a neutral body position.
  - Use reasonable operating forces.
  - Minimize repetitive actions.
  - Minimize sustained physical effort.

Size and Space
- Appropriate size and space is provided for approach, reach, manipulation, and use regardless of user's body size, posture, or mobility.
  - Provide a clear line of sight to important elements for any seated or standing user.
  - Make reach to all components comfortable for any seated or standing user.
  - Accommodate variations in hand and grip size.
  - Provide adequate space for the use of assistive devices or personal assistance.

Here are some resources:
- Do-It – www.washington.edu/doit/
- The Center for Universal Design – www.design.ncsu.edu/cud
- Institute for Human Centered Design – www.adaptenv.org
- Concrete Change, Every New Home Visitable – www.concretechange.org
- RERC on University Design – www.ap.buffalo.edu/idea/rrcud.asp
- Trace Center – Trace.wisc.edu
- Universal Designers and Consultants – Universaldesign.com
Adaptive or Assistive Technology

Assistive technology or adaptive technology (AT) is an umbrella term that includes assistive, adaptive, and rehabilitative devices for people with disabilities and also includes the process used in selecting, locating, and using them. AT promotes greater independence by enabling people to perform tasks that they were formerly unable to accomplish, or had great difficulty accomplishing, by providing enhancements to, or changing methods of interacting with, the technology needed to accomplish such tasks. Examples of Assistive technology include the curb cut in architecture, standing frames, text telephones, accessible keyboards, large print, Braille, and speech recognition software.

Here are some resources:
- Enablemart – www.enablemart.com
- Standards.gov – www.standarts.gov/assistivetechnology.cfm
- AbleNet – www.ablenetinic.com
Libraries play an important role in ensuring that everyone has access to information in printed and electronic forms. In making these resources accessible, principles of universal design (UD) can be employed.

**Legal Issues**

Section 504 of the Rehabilitation Act of 1973 and the Americans with Disabilities Act of 1990 prohibit discrimination against individuals with disabilities. According to these laws, no otherwise qualified person with a disability shall, solely by reason of his or her disability, be excluded from the participation in, be denied the benefits of, or be subjected to discrimination under any program or activity of a public entity. "Person with a disability" means "any person who has a physical or mental impairment which substantially limits one or more major life activities including walking, seeing, hearing, speaking, breathing, learning, and working, has a record of such an impairment, or is regarded as having such an impairment."

**Universal Design**

To make your library accessible and useful to everyone, employ principles of UD. Universal design means that rather than designing your facility and services for the average user, you design them for people with a broad range of abilities, disabilities, and other characteristics—such as age, reading ability, learning style, language, culture, and others. Keep in mind that students and other visitors may have learning disabilities or visual, speech, hearing, and mobility impairments. Making your library accessible to them will make it more usable by everyone and minimize the need for special accommodations for those who use your services and for future employees as well. Make sure everyone feels welcome, and can
- get to the library facility and maneuver within it,
- communicate effectively with support staff,
- access printed materials and electronic resources, and
- fully participate in events and other activities.

Train staff to support people with disabilities, respond to specific requests for accommodations in a timely manner, and know whom they can contact if they have disability-related questions.

**Guidelines and Examples**

The following questions can guide you in making your library accessible to everyone. Your disabled student services office may also be able to assist you in increasing the accessibility of your services. This content does not provide legal advice. Consult your campus legal counsel or ADA/504 compliance officer regarding relevant legal issues. A consultation with your regional Office for Civil Rights (OCR) can also help clarify issues.
Planning, Policies, and Evaluation
Consider diversity issues as you plan and evaluate services.
- Are people with disabilities, racial and ethnic minorities, men and women, young and old students, and other groups represented on your staff in numbers proportional to those of the whole campus or community?
- Does the library have a written policy and description of services for patrons with disabilities, including information on how to request accommodations?
- Is accessibility included in the procurement of library holdings?
- Does the library have a procedure in place that ensures timely response to requests for disability-related accommodations and other special assistance?
- Are disability-related access issues addressed in your evaluation methods?

Physical Environments and Products
Ensure physical access, comfort, and safety within an environment that is inclusive of people with a variety of abilities, racial and ethnic backgrounds, genders, and ages.
- Are there parking areas, pathways, and entrances to the library that are wheelchair-accessible and clearly identified?
- Are all levels of the library connected via an accessible route of travel, or are there procedures to assist patrons with mobility impairments in retrieving materials from inaccessible locations?
- Are elevator controls accessible from a seated position and available in large print and Braille or raised notation? Do elevators have both auditory and visual signals for floors?
- Are wheelchair-accessible restrooms with well marked signs available in or near the library?
- Are information desks and facilities such as book returns wheelchair accessible?
- Are aisles kept wide and clear of obstructions for the safety of users who have mobility or visual impairments?
- Are there ample high-contrast, large print directional signs throughout the library? Are shelf and stack identifiers provided in large print and Braille formats? Are call numbers on book spines printed in large type? Is equipment marked with large print and Braille labels?
- Is adequate light available?
- Are telecommunication devices for the deaf (TTY/TDD) available?
- Are private study areas available for patrons with disabilities who need to bring personal equipment, who need the assistance of a reader, or who are distracted by noise and movement around them?

Library Staff
Make sure staff are prepared to work with all patrons.
- Are all staff members aware of issues related to communicating with patrons of different races and ethnicities, ages, and abilities? (See “Communication Hints” at the end of this publication for suggestions.)
- Are staff trained in the use of telecommunication devices for the deaf (TTY/TDD), the Telecommunications Relay Service, and assistive computer technology provided in the library?
- Are staff trained in policies and procedures for providing accommodations to patrons with disabilities?
— Do staff members have ready access to a list of on- and off-campus resources for students with disabilities?
— Are staff knowledgeable about other organizations, such as federally-funded Talking Book and Braille Libraries, that provide services to patrons with disabilities?
— Do service staff wear large-print name badges?
— If there are staff members with sign language skills, are they identified to other staff members so that, when available, they can assist patrons who are deaf?

Information Resources and Technology
Ensure that publications and websites welcome a diverse group and content is accessible to everyone.
— Can the library's electronic and information resources, including web pages, online catalogs, indexes, and full-text databases and CD-ROMs, be accessed with a variety of adaptive computer technologies such as screen readers?
— Are librarians prepared to assist patrons with inaccessible electronic resources by providing consultations or materials in other formats?
— Are reader and research assistants available to patrons with visual impairments?
— Are reference and circulation services available by phone, TTY/TDD, and electronic mail?
— Are resource delivery services available for patrons unable to leave their homes, retirement facilities, or hospitals?
— Are applications for the nationwide network of Talking Book and Braille Libraries available for patrons with print-related disabilities?
— Are large magnifying glasses available for patrons with low vision?

— In key publications and on your website, do you include a statement about your commitment to universal access and procedures for requesting disability-related accommodations? For example, "Our library's goal is to make all materials and activities accessible. Please inform project staff of accessibility barriers you encounter and of accommodations that will make information resources accessible to you."

— Are all printed publications available (immediately or in a timely manner) in alternate formats such as Braille, large print, and electronic text?
— Are key documents provided in language(s) other than English?

— Do you include a statement on your website affirming your commitment to accessible design? For example, "We strive to make our website universally accessible. We provide text descriptions of graphics and photos. Video clips are open-captioned and audio-described, providing access to users who can't hear the audio or see the video, respectively. Suggestions for increasing the accessibility of these pages are welcome."
— Do videos developed or used in the library have captions? For more information, consult Creating Video and Multimedia Products That Are Accessible to People with Sensory...

- Do you ask vendors about accessibility features (e.g., captioned video, compatibility with assistive technology) before purchasing computers and software?
- Is an adjustable-height table available for each type of workstation to assist students who use wheelchairs or are small or large in stature?
- Do you provide adequate work space for both left- and right-handed users?
- Are large-print key labels available to assist students with low vision?
- Is software to enlarge screen images and a large monitor available to assist students with low vision and learning disabilities?
- Do you provide a trackball to be used by someone who has difficulty controlling a mouse?
- Are wrist and forearm rests available to assist some people with mobility impairments?
- Are staff members aware of accessibility options (e.g., enlarged text feature) included in computer operating systems and of assistive technology available in the facility?
- Are procedures in place for a timely response to requests for assistive technology?

Events

Ensure that everyone feels welcome and can participate in events sponsored by the organization.

- Are events located in wheelchair-accessible facilities? Is the accessible entrance clearly marked?
- Is information about how to request disability-related accommodations included in publications promoting events?
- Is accessible transportation available if transportation is arranged for other participants?

Checklist Updates

This checklist was field tested at more than twenty postsecondary institutions nationwide (see http://www.washington.edu/doit/Brochures/Academics/admin.html). The results of a nationwide survey to test face-validity of checklist items led to further refinement of the checklist. To increase the usefulness of this working document, send suggestions to sherylb@u.washington.edu.

Additional Resources

An electronic copy of the most current version of this publication as well as additional useful brochures can be found at http://www.washington.edu/doit/Brochures/. A 10-minute video, Equal Access: Campus Libraries, demonstrates key points summarized in this publication. It may be freely viewed online and purchased in DVD format from DO-IT. Consult http://www.washington.edu/doit/Video/ for access to this and other videos that may be of interest. Permission is granted to reproduce DO-IT videos and publications for educational, noncommercial purposes provided the source is acknowledged.

For more information about making your library accessible to everyone, consult The Student Services Conference Room at http://www.washington.edu/doit/Conf/. There, a collection of documents and videos provide further details about making student services accessible to everyone. They include checklists for career services, distance learning, computer labs, recruitment and admissions, registration, housing and residential life, financial aid, libraries, tutoring and learning centers, and student organizations. The Conference Room also includes a searchable Knowledge Base of questions and answers, case studies, and promising practices.
Principles of universal design can be applied to all aspects of your service. For more information about applications of universal design consult [http://www.washington.edu/doit/Resources/udesign.html](http://www.washington.edu/doit/Resources/udesign.html).

**About DO-IT**

DO-IT (Disabilities, Opportunities, Internetworking, and Technology) serves to increase the successful participation of individuals with disabilities in challenging academic programs and careers. Primary funding for DO-IT is provided by the National Science Foundation, the U.S. Department of Education, and the State of Washington. The contents of this publication and accompanying video were developed under a grant from the Department of Education, No. P333A020044. However, these contents do not necessarily represent the policy of the Department of Education, and you should not assume endorsement by the Federal Government.

For further information, to be placed on the DO-IT mailing list, or to request materials in an alternate format, contact:

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Grants and gifts fund DO-IT publications, videos, and programs to support the academic and career success of people with disabilities. Contribute today by sending a check to DO-IT, Box 355670, University of Washington, Seattle, WA 98195-5670.

Your gift is tax deductible as specified in IRS regulations. Pursuant to RCW 19.09, the University of Washington is registered as a charitable organization with the Secretary of State, State of Washington. For more information, call the Office of the Secretary of State, 800-322-4483.
Introduction

• Who is This Guide for?
People from culturally and linguistically diverse communities and people with disabilities sometimes find it hard to read complex text. This guide has been designed to assist you when preparing documents for people who have difficulty reading and understanding written information. The documents may be reports, forms, information sheets, flyers, brochures, booklets, and other written information. It is not intended for use in the development of Easy English websites.

• How to Use This Guide
This guide will help you write information that is easy to understand. You need to check that the information you write follows the guidelines set out below.
Contact Details

Communication Resource Centre

Please contact us if you need extra help with the development of Easy English documents.

Address: 830 Whitehorse Road.
Box Hill, Victoria. 3128.

Phone: (03) 9843 2000
Fax: (03) 9843 2033
Toll free: 1800 888 824

Web site: www.scopevic.org.au
Email: crc@scopevic.org.au

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1. Before You Start

Ask yourself:

- **Who is the target audience?**
- **How much information and detail are needed?** Keep it to the minimum.
- **What type of written information is it?** For example, flyer, brochure.

- For **information sheets or flyers** use one side of the page. This makes it easy to know what to read first.
- For **brochures** use A4 or A5 size paper that opens once or twice. This makes it easy to find the information.
- For **booklets** use a ring binder or spiral to hold the document together. This makes it easy to turn the pages.

2. Title

- Always use a title.
- Make the title clear and simple.

3. Contents — ‘in This Book’

Make a list of what is in the document. Include:

- Who the document is for.
- How to use the document.
- Where to get extra help to read the document.
- Use an index (if needed).
- Use a glossary (if needed).
- Give information about other formats and languages. Put this information inside the front cover.
- Put date and year of publication.
- Put where the original document is available.
- Put contact details on the back page. Include names, phone numbers, fax numbers, TTY numbers, email and website addresses.
4. Layout of the Document
- Margins
  Use wide margins, at least 2.5 cm wide.
- Justify
  Line up all text to the left, including headings.
  **DO NOT centre text**
- Spacing
  Use extra space between lines and sentences.
  Increase space between numbers. For example, (6 and 8).
- Emphasis
  Use the **bold** function for important words or phrases.
  Use a box to highlight information.

Use lower and upper case.
**DO NOT USE UPPER CASE ONLY.**
**DO NOT use italics.**
Use the underline function for websites only. For example:
www.scopevic.org.au
- Length
  Use 50-60 characters per line.
  Complete words on the line they start on.
  For example, write communication not communication.
  **Finish a sentence on the page it starts on.**

5. Inside the Document
- Use headings.
- Use dot points or numbers.
- Write only the key points.
- Present information in a sequence of clear steps.
- Sequence information from left to right.
- **DO NOT use columns of type.**
- Number pages using the same size font as the writing in the document.

6. Size of Writing
- Font
  Use Arial, Verdana, Tahoma or Helvetica font.
- Font Size
  Use font size 14.

For brochures, information sheets and flyers use a font size of 16 or a font size of 18.

**Use much larger font for posters.**

Use a high contrast background, if font size is less than 14pt
7. Easy to Read

For example:

- Use clear, simple language. DO NOT use slang.
- Use one idea per sentence.
- Use short sentences.
- Use direct language. Address readers as 'you'.
- Use clear examples that highlight the point you are making.
- Use active rather than passive sentences. For example, 'The girl kissed the boy.', not 'The boy was kissed by the girl.'.
- Name the person first, then describe them. For example, 'a person with autism', not 'an autistic person'.
- Use full names. For example, 'street' not 'st.'.
- DO NOT use acronyms or contractions of words. For example, write 'it is' not 'it's'.
- Use pictures, logos or photographs to add meaning to the text.
- Use words for the numbers one to ten. Use numbers from 11 onwards.
- When starting a sentence with a number, always write the word.
- Keep punctuation marks to the minimum.

Check the readability of text using Microsoft Word

To use this:
- Select 'tools'.
- Go to 'options'.
- Select 'spelling and grammar' page.
- Tick 'show readability statistics'.

Complete a spell check. The readability score will be shown at the end.

A FLESCH reading score of 85% or above means the content of the document should be relatively easy to read.
8. Use of Pictures or Pictographs

A pictograph is a visual image used to represent a concept or written word. For example:

- Pictures, pictographs, logos and photographs can be used to add meaning to the document.
- Pictures, pictographs, logos and photographs can also make the document interesting and attractive to the reader.
- Use pictures, pictographs and photos sparingly.

How to Use Logos

- Use appropriate logos, if needed. For example:

![Bank Logo](image)

- To identify your company, put the logo in the same place on all documents.

How to Use Photographs

- Use clear photographs.
- Remove background and foreground clutter.
- Make the item/s in the photograph the main part of the photograph.

- Use a clear background screen when taking photographs of objects.
- Reduce glare and reflection from surfaces.

How to Use Pictographs and Pictures

- Think about which pictograph system/s you use. There is a number of commercially available sets of pictographs, for example, Compic, PCS, and Softpics. Use clear line drawings or pictographs. For example:

![Pictograph Examples](image)

- Use pictographs for key points only.
- DO NOT use a pictograph for every word in the document.
- Use the same pictograph for the same concept throughout the document.
- Use a pictograph that looks like the idea being described for your target audience.
Example 1:

- Home icon
- Home icon

Example 2:

- The spoon is in the bowl
- The spoon is in the bowl
- The spoon is in the bowl
- The spoon is in the bowl

Have you chosen the best photographs, pictograph/s or pictures?

Cover your writing.
Do the pictographs or pictures make sense visually without the writing?
Do the pictographs or pictures represent the idea or concept being discussed?
Will the person reading the document be able to relate to the pictographs or photographs from their life experiences?

- Use pictographs or photographs on the title page to represent what the document is about.
- Decide whether to use pictographs for:
  - setting the topic and headings, or
  - summarising paragraphs, or
  - reading the text (key word).
- Put a box around writing and pictograph (if needed).
- Use colour pictographs (if needed).
- Put pictographs above the writing.
- Present writing and pictographs from left to right.
- Put extra spacing between lines of writing with pictographs.
- Use a plain, solid background. DO NOT use ‘watermark’ graphics under text.
9. Use of Colour

- Use high contrast colours. Usually use dark colours for the writing such as:
  - Yellow and blue
  - Black and white

Make white writing big and bold. Use a dark background.

- Highlight headings with colour.
- DO NOT overuse bright colours.
- DO NOT use a lot of different colours in the one document.

10. Paper

- Use heavy-weight paper, no less than 100GSM.
- Use matt paper.

11. References

The Easy English Writing Style Guide has been based on material from the following sources:

- Norah Fry Research Centre. www.bris.ac.uk/Depts/NorahFry
12. Resources

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  P.O. Box 1579
  Solana Beach, CA 92075
  USA
  Phone: 858-550-0084
  Fax: 858-550-0449
  Email: mayerj@mayer-johnson.com
  Web site: [www.mayer-johnson.com](http://www.mayer-johnson.com)

- **Widgit Rebus**
  Widgit Software Ltd
  124 Cambridge Science Park,
  Milton Rd,
  Cambridge,
  CB4 0ZS,
  UK
  Web site: [info@widgit.com](mailto:info@widgit.com)

- **The Softpics symbols used with permission Bloom@tig.com.au**

- **Using the Internet**
  Google is the recommended search engine for sourcing pictures.
  Type in [www.google.com.au](http://www.google.com.au)
  Go to ‘images’.
  Type the name of the image you want.
  Make sure you are not breaching any copyright.
Introduction
NCBI (National Council for the Blind of Ireland) has created guidelines on producing written information that is accessible to everyone.

Over 11,000 people use the services offered by the NCBI. Of this figure, 82 per cent have some useful vision. If a person is vision impaired, their vision may be blurred, colours can become dulled and they may not see small details. People with vision impairments may also have difficulty scanning text and may be able to see only a small part of an image or text at a time. Some people with low vision can read standard print but it can be slow and exhausting. For these people, written material should be produced in well-designed clear print so that it can read more easily.

Specific guidelines need to be followed so that the process of reading is as simple as possible for people with low vision. The recommendations in this document will not only help people with sight loss, clear language and layout help everybody access information more easily. With this in mind, the NCBI make the following recommendations.

These guidelines should be applied to any standard or large print material that your organisation produces.

Formatting
Although, each individual will have his or her own optimum type size, research (Rubin et al, 2006) has shown increasing type size, from standard print, will increase everyone's reading speed.

The size of type (which is measured in point sizes or ‘x-height’ which is the height of the lower case letter) is critical to clear print design.

- Use a very minimum of type size 12 point or ideally 14 point. The means a very minimum x-height of 2mm or ideally 2.3mm.
- Use clear and simple fonts that are easily recognisable. Avoid decorative, ornamental or handwriting font styles. There is some evidence to suggest that a clear sans serif font is preferable.
- Avoid cramming or stretching letters.
- Use a font type that gives equal space between each letter (known as a mono-spaced font). Avoid altering the space between words or letter, or changing the proportion of the letters (horizontal scaling) to fit more text onto a line.
- People recognise the shape of a word rather than every single letter when they read. Avoid underlining words or putting them in italics, as these make it more difficult to recognise letter shapes. Avoid writing a full sentence in CAPITAL LETTERS, as they distort the word's shape.
- It is better to emphasise words using a bold type.
- Avoid a light weight as it will not provide enough contrast with the background colour. Bolder weight are easier to see and read.
- If using bullet points, make sure they are solid and in a contrasting colour.
- Do not use vertical or curving text.
- Splitting words between two lines, by using a hyphen, should be kept to a minimum, as this disrupts the reader's flow.
- Use an average of 15 to 20 words in each sentence. Consecutive sentences that are too long or too short will tire the reader's eyes and make it harder for them to follow what you are saying.

Large print
There is no single answer to “what is large print”. Each individual will have an optimum type size and will require personal correspondence in their preferred type size. NCBI defines large print as using a very minimum of type size 16, or an x-height of 2.8mm. If you are producing a large print version and decide to use 16 point type size you should state what the text size is when promoting the document. When producing a large print document, it is not only about enlarging the text size, you should also follow clear print design. Depending on the type of information, large print can also be effectively produced using a standard word processor and printer. This is particularly useful in the workplace for information such as agendas and reports. It is also a useful way of adapting the document to the text size requested.

Enlarging an A4 document to an A3 using a photocopier is not recommended because the quality can be reduced and an A3 sheet is difficult to manage.

Numbers and amounts
- The numbers 3, 5 and 8 can be misread and, with some fonts, 0 and 6 can be confused. Choose a font that has clear numerals.
- When using tables, make sure that the numbers and the borders are not too close together.
- Use decimal points only where necessary, as they can be difficult to see.
Layout

- Always use a consistent layout for each section to make it easier for the reader to find information. Use recurring features, for example, position headings and page numbers in the same place for each section.

- For longer documents, include a list of contents as a useful navigational aid. For a list of contents, use a dotted line between the text and the page number.

Leading

The space between lines of text is called leading. If lines of text are too close they can appear to merge making it difficult to read. Generally, the space between one line and the next should be at least 1.5 to 2 times the space between words on a line. This is not the same as increasing the leading to 1.5 times the point size. This translates into something like 14 point set on 17 point leading which is equivalent to a space of 2mm between each word and a space of 3.75mm between each line. Another example is 12 point set on 15 point leading. In Microsoft Word, leading less than single line spacing would be inadequate.

Paragraphs

- Align text to the left, as this makes it easier for the reader to find the start of each line.

- It is best to avoid justifying text, as it creates uneven, and sometimes large, gaps between words or crams lines of text together. Readers with sight loss can mistake large gaps to be the end of sentences.

- Avoid aligning text to the right because this creates a jagged left margin making it difficult for readers with sight loss to find the start of each line.

- Only use centred text for main headings or titles. Centred text, where each line starts in a different place, is difficult to follow.

- Use a margin of 1.5 inches to ensure that the text is not too close to the documents spine.

- Leave at least one full line between paragraphs. This will divide the text into sections, making it easier to navigate. Do not indent the first word of a paragraph.

Columns

- If using columns, leave plenty of space between the columns, known as the gutter. If the columns are too close together the reader may read across the page rather than down the column. If there is limited space, use a vertical line of at least 1 point thickness to separate columns.

- Do not place images into a column, as the reader has to skip over the image to read the next line and can lose their place on the page.

Printed forms

- Some people with low vision use a thick felt tip marker to see and read what they have written. If a reader needs to write on a form, make sure that there is plenty of space for them to write bigger and to complete the form using a thick marker.

- Make answer boxes stand out by having them in a paler colour than other parts of the form.

- Use as many tick-the-box questions as possible. For those with low vision, make sure tick boxes are large enough to see and tick.

- To avoid a jagged column of tick boxes, tick boxes should be on the left before the appropriate answer or linked to the answer by a dotted line.

- Make sure tick box borders and answer lines are solid and at least 1 point width.

- Make sure tick boxes are not confusingly located between two answers.

- See Appendix 1 for an example of an accessible form.

Images

- Images are a useful way to communicate information. A person with vision impairment may be only able to see a small piece of an image at one time, which they can build up to get an overall image.

- Use images that add to the meaning of information outlined in the text or provide a text caption explaining their significance. Ensure that text captions are located in the same place in the document so that the reader can easily find them.

- Try using images as a navigational aid for people with low vision, for example inserting an image to indicate the beginning of each section.

- Use images and photos with clear edges and good contrasting colours. These are easier to see than watercolour images with undefined edges and light, faded colours. Abstract images and images that use the same tone are best.

- The lines used in illustrations should be thick and solid.

- The important part of the image should stand out.

- Avoid images or photographs with too much detail.
• Do not place text over an image, as this will make the text more difficult to read. Readers will not expect to find text within an image.

• Do not overlay one image over another.

• If you want to wrap text around an image, place the image on the right of the page so that each line on the left margin will start in the same place making it easier for the reader to find the start of each line.

• Images should not be the only way of providing information. For example, if you include a graph, could it equally be explained in words or a table? If you include a map (a useful way to explain a location for people with literacy difficulties) also provide written directions.

• Make sure that images are clearly separate from text.

• Do not use grainy photographs.

• Make images and photographs as large as possible but not so large that they reduce in quality. A digital or scanned photograph for printing should have a minimum resolution of 300 dots per inch (dpi) at the size at which it will be used.

Colour

• Effective use of contrast between text and the background on which it is printed is of crucial for people with low vision.

• Make sure the contrast is strong enough. It is better to use a very dark colour and a very pale colour, for example dark text on a light background.

• Avoid switching from negative text to standard text on the same page, as it can be confusing to the reader.

• Negative text (also known as reverse text) refers to using a very light colour text on a dark block of colour. Consider using it for headings, important information and page numbers.

• When using negative text, increase the type size and type weight because a very light colour text on a dark background appears smaller.

• Use different colour combinations for different sections of a document, for example choose navy and yellow for Chapter One, cream and brown for Chapter Two and so on.

Paper quality and surface

• Avoid glossy paper and gloss lamination. Choose matt, silk or uncoated paper. The paper should weigh over 90 gsm, a little thicker than standard photocopying paper so that you cannot see the design or text on the reverse of the page.

• If the paper folds over, ensure that creases are not on the text.

• Choose binding methods that allow the document to be laid flat for photocopying, scanning and reading with magnification. Perfect binding used for paperbacks can make it difficult to lay the document flat. Saddle stitching or staples is useful for shorter documents. Wire or comb binding allows a larger document to be opened flat.
Appendix 1 – Sample of a form

Part 1: Your details

1 What is your name?
   First name
   Last name

2 What is your address?

4 What is your telephone number?
   Home
   Work

5 Do you live alone?
   Yes
   No

Clear print design checklist

Font size and formatting
- Is the font size at least 12 point or ideally 14 point?
- Is the font type simple and clear?
- Is the text left aligned?
- Does the text contrast effectively with the background?
- Is the main text in upper and lower case?
- Are CAPS only used for single words?
- Is underlining and italics avoided?
- Is colour, bold or a larger font size used to highlight keywords or headings?
- Is splitting words between two lines avoided?
- Is curved or vertical text avoided?
- Is central alignment only used for titles?
- Is there is adequate space between each line?
- Are words stretched or crammed?
- Is there a space between each paragraph?
- Is there an adequate gutter between columns of text?
- Are bullet points solid and bold?

Consistent layout
- Is the layout consistent and logical?
- Are recurring features used?
- Are page numbers in the same place on each page?

Images
- Is text over images avoided?
- Are watermarks behind text avoided?
- Have you ensured that images are not the only way of providing information?

Forms
- If the reader needs to write on the page, is there is adequate space to use a big thick marker?
- If using tick boxes or tables, is the border is solid and bold?

Printing
- Does the paper have a matt finish?
- Do folds on the paper obscure the text?

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A Few Words About **People First Language** by Kathie Snow
Visit www.disabilityisnatural.com to see the original, full-length article.

People with disabilities constitute our nation’s largest minority group. It’s also the most inclusive: all ages, genders, religions, ethnicities, sexual orientations, and socioeconomic levels are represented.

Yet the only thing people with disabilities have in common is being on the receiving end of societal misunderstanding, prejudice, and discrimination. And this largest minority group is the only one that anyone can join, at any time: at birth, in the split second of an accident, through illness, or during the aging process. If and when it happens to you, how will you want to be described?

**Words matter!** Old and inaccurate descriptors perpetuate negative stereotypes and generate an incredibly powerful attitudinal barrier—the greatest obstacle facing individuals with disabilities. A disability is, first and foremost, a medical diagnosis, and when we define people by their diagnoses, we devalue and disrespect them as individuals. Do you want to be known primarily by your psoriasis, gynecological history, or the warts on your behind? Using medical diagnoses incorrectly—as a measure of a person’s abilities or potential—can ruin people’s lives.

**Embrace a new paradigm:** “Disability is a natural part of the human experience...” (U.S. Developmental Disabilities/Bill of Rights Act). Yes, disability is natural, and it can be redefined as a “body part that works differently.” A person with spina bifida has legs that work differently, a person with Down syndrome learns differently, and so forth. People can no more be defined by their medical diagnoses than others can be defined by gender, ethnicity, religion, or other traits!

A diagnosis may also be used as a sociopolitical passport for services, entitlements, or legal protections. Thus, the only place where the use of a diagnosis is relevant are medical, educational, legal, or similar settings.

**People First Language** puts the person before the disability, and describes what a person has, not who a person is. Are you “cancerous” or do you have cancer? Is a person “handicapped/disabled” or does she “have a disability”? Using a diagnosis as a defining characteristic reflects prejudice, and also robs the person of the opportunity to define himself.

Let’s reframe “problems” into “needs.” Instead of, “He has behavior problems,” we can say, “He needs behavior supports.” Instead of, “She has reading problems,” we can say, “She needs large print.” “Low-functioning” or “high-functioning” are pejorative and harmful. Machines “function”; people live! And let’s eliminate the “special needs” descriptor—it generates pity and low expectations!

A person’s self-image is tied to the words used about him. People First Language reflects good manners, not “political correctness,” and it was started by individuals who said, “We are not our disabilities!” We can create a new paradigm of disability and change the world in the process. Using People First Language is right—just do it, now!

<table>
<thead>
<tr>
<th>A FEW EXAMPLES OF PEOPLE FIRST LANGUAGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Say: Children/adults with disabilities.</td>
</tr>
<tr>
<td>He has a cognitive disability.</td>
</tr>
<tr>
<td>She has autism.</td>
</tr>
<tr>
<td>He has Down syndrome.</td>
</tr>
<tr>
<td>She has a learning disability.</td>
</tr>
<tr>
<td>He has a physical disability.</td>
</tr>
<tr>
<td>She uses a wheelchair.</td>
</tr>
<tr>
<td>He receives special ed services.</td>
</tr>
<tr>
<td>People without disabilities.</td>
</tr>
<tr>
<td>Communicates with her eyes/device/etc.</td>
</tr>
<tr>
<td>Congenital disability/Brain injury</td>
</tr>
<tr>
<td>Accessible parking, hotel room, etc.</td>
</tr>
<tr>
<td>Instead of: Handicapped, disabled, special needs.</td>
</tr>
<tr>
<td>He’s mentally retarded.</td>
</tr>
<tr>
<td>She’s autistic.</td>
</tr>
<tr>
<td>He’s Down’s/mongoloid.</td>
</tr>
<tr>
<td>She’s learning disabled.</td>
</tr>
<tr>
<td>He’s a quadriplegic/crippled.</td>
</tr>
<tr>
<td>She’s confined to/wheelchair bound.</td>
</tr>
<tr>
<td>He’s in special ed; a special ed kid.</td>
</tr>
<tr>
<td>Normal or healthy people.</td>
</tr>
<tr>
<td>Is non-verbal.</td>
</tr>
<tr>
<td>Birth defect/Brain damaged</td>
</tr>
<tr>
<td>Handicapped parking, hotel room, etc.</td>
</tr>
</tbody>
</table>
EXAMPLES OF PEOPLE FIRST LANGUAGE

BY KATHIE SNOW; VISIT WWW.DISABILITYISNATURAL.COM TO SEE THE COMPLETE ARTICLE

Remember: a disability descriptor is simply a medical diagnosis; People First Language respectfully puts the person before the disability; and a person with a disability is more like people without disabilities than different!

Say:
People with disabilities.
He has a cognitive disability/diagnosis.
She has autism (or a diagnosis of...).
He has Down syndrome (or a diagnosis of...).
She has a learning disability (diagnosis).
He has a physical disability (diagnosis).
She’s of short stature/she’s a little person.
He has a mental health condition/diagnosis.
She uses a wheelchair/mobility chair.
He receives special ed services.
She has a developmental delay.
Children without disabilities.
Communicates with her eyes/device/etc.
Customer
Congenital disability
Brain injury
Accessible parking, hotel room, etc.
She needs... or she uses...

Instead of:
The handicapped or disabled.
He’s mentally retarded.
She’s autistic.
He’s Down’s; a mongoloid.
She’s learning disabled.
He’s a quadriplegic/is crippled.
She’s a dwarf/midget.
He’s emotionally disturbed/mentally ill.
She’s confined to/is wheelchair bound.
He’s in special ed.
She’s developmentally delayed.
Normal or healthy kids.
Is non-verbal.
Client, consumer, recipient, etc.
Birth defect
Brain damaged
Handicapped parking, hotel room, etc.
She has problems with... has special needs.

Keep thinking—there are many other descriptors we need to change!

Excerpted from Kathie’s People First Language article, available at www.disabilityisnatural.com.

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Communication Hints

Treat people with disabilities with the same respect and consideration with which you treat others. There are no strict rules when it comes to relating to people with disabilities. However, here are some helpful hints.

**General**
- Ask a person with a disability if he or she needs help before providing assistance.
- Talk directly to the person with a disability, not through the person’s companion or interpreter.
- Refer to a person’s disability only if it is relevant to the conversation. If so, mention the person first and then the disability. “A man who is blind” is better than “a blind man” because it puts the person first.
- Avoid negative descriptions of a person’s disability. For example, “a person who uses a wheelchair” is more appropriate than “a person confined to a wheelchair.” A wheelchair is not confining—it’s liberating!
- Do not interact with a person’s guide dog or service dog unless you have received permission to do so.

**Blind or Low Vision**
- Be descriptive. Say, “The computer is about three feet to your left,” rather than “The computer is over there.”
- Speak all of the content presented with overhead projections and other visuals.
- When guiding people with visual impairments, offer them your arm rather than grabbing or pushing them.

**Learning Disabilities**
- Offer directions or instructions both orally and in writing. If asked, read instructions to individuals who have specific learning disabilities.

**Mobility Impairments**
- Sit or otherwise position yourself at the approximate height of people sitting in wheelchairs when you interact.

**Speech Impairments**
- Listen carefully. Repeat what you think you understand and then ask the person with a speech impairment to clarify or repeat the portion that you did not understand.

**Deaf or Hard of Hearing**
- Face people with hearing impairments so they can see your lips. Avoid talking while chewing gum or eating.
- Speak clearly at a normal volume. Speak louder only if requested.
- Use paper and pencil if the person who is deaf does not read lips or if more accurate communication is needed.
- In groups raise hands to be recognized so the person who is deaf knows who is speaking. Repeat questions from audience members.
- When using an interpreter, speak directly to the person who is deaf; when an interpreter voices what a person who is deaf signs, look at the person who is deaf, not the interpreter.

**Psychiatric Impairments**
- Provide information in clear, calm, respectful tones.
- Allow opportunities for addressing specific questions.
United Spinal Association

Mission Statement
United Spinal Association is dedicated to improving the quality of life for all Americans with spinal cord injuries and disorders.

About Us
For over 60 years, we have fought for veteran’s rights and for the rights of all individuals with disabilities. We played a significant role in writing the Americans with Disabilities Act, and made important contributions to the Fair Housing Amendments Act and the Air Carrier Access Act.

Our initiatives in research and education, government policy and legislation, civil rights and advocacy, accessibility and architectural design, and competitive athletics ensure that veterans and all Americans with spinal cord injuries and disorders live healthier, more independent and productive lives as active members of their communities.

Publications
To download any of our publications free of charge, go to www.unitedspinal.org/publications or call 1-800-444-0120 to order printed copies.

Donations
United Spinal Association receives very little government funding of any kind. Our programs depend solely on individuals like you and your tax-deductible gifts. In fact, without generous people like you, our organization could not exist. If you would like to make a donation to support our important programs, please go to www.unitedspinal.org/giving or call 1-800-404-2899.

Training
United Spinal Association can customize a “Disability Etiquette” training session at a reasonable cost for your company, organization or school. Our experienced staff can plan a full day or a short lunch and learn program based on your needs. For more information please contact info@unitedspinal.org

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Introduction
The national organization on disability reports that more than 54 million Americans have a disability. This booklet is for anyone—with or without a disability—who wants to interact more effectively with people with disabilities.

The Americans with Disabilities Act (ADA) of 1990 was conceived with the goal of integrating people with disabilities into all aspects of American life, particularly the workplace and the marketplace. Sensitivity toward people with disabilities is not only in the spirit of the ADA, it makes good business sense. It can help you expand your practice, better serve your customers or develop your audience. When supervisors and co-workers use disability etiquette, employees with disabilities feel more comfortable and work more productively. Practicing disability etiquette is an easy way to make people with disabilities feel welcome.

You don’t have to feel awkward when dealing with a person who has a disability. This booklet provides some basic tips for you to follow. And if you are ever unsure how to interact with a person who has a disability, just ask!

The Basics
ASK BEFORE YOU HELP
Just because someone has a disability, don’t assume she needs help.* If the setting is accessible, people with disabilities can usually get around fine. Adults with disabilities want to be treated as independent people. Offer assistance only if the person appears to need it. And if she does want help, ask how before you act.

BE SENSITIVE ABOUT PHYSICAL CONTACT
Some people with disabilities depend on their arms for balance. Grabbing them—even if your intention is to assist—could knock them off balance. Avoid patting a person on the head or touching his wheelchair, scooter or cane. People with disabilities consider their equipment part of their personal space.
THINK BEFORE YOU SPEAK
Always speak directly to the person with a disability, not to his companion, aide or sign language interpreter. Making small talk with a person who has a disability is great; just talk to him as you would with anyone else. Respect his privacy. If you ask about his disability, he may feel like you are treating him as a disability, not as a human being. (However, many people with disabilities are comfortable with children’s natural curiosity and do not mind if a child asks them questions.)

* Note: We want you to think of people who have a disability as individuals—your friends, your co-workers, your neighbors—so rather than use the amorphous group term “they” for people with disabilities, we use the pronouns “he” or “she” throughout this booklet.

DON’T MAKE ASSUMPTIONS
People with disabilities are the best judge of what they can or cannot do. Don’t make decisions for them about participating in any activity. Depending on the situation, it could be a violation of the ADA to exclude people because of a presumption about their limitations.

RESPOND GRACIOUSLY TO REQUESTS
When people who have a disability ask for an accommodation at your business, it is not a complaint. It shows they feel comfortable enough in your establishment to ask for what they need. And if they get a positive response, they will probably come back again and tell their friends about the good service they received.

Terminology Tips
PUT THE PERSON FIRST. Say “person with a disability” rather than “disabled person.” Say “people with disabilities” rather than “the disabled.” For specific disabilities, saying “person with Tourette syndrome” or “person who has cerebral palsy” is usually a safe bet. Still, individuals do have their own preferences. If you are not sure what words to use, ask.

Avoid outdated terms like “handicapped” or “crippled.” Be aware that many people with disabilities dislike jargon, euphemistic terms like “physically challenged” and “differently abled.” Say “wheelchair user,” rather than “confined to a wheelchair” or “wheelchair bound.” The wheelchair is what enables the person to get around and participate in society; it’s liberating, not confining.
With any disability, avoid negative, disempowering words, like “victim” or “sufferer.” Say “person with AIDS” instead of “AIDS victim” or “person who suffers from AIDS.”

It’s okay to use idiomatic expressions when talking to people with disabilities. For example, saying, “It was good to see you,” and “See you later,” to a person who is blind is completely acceptable; they use these expressions themselves all the time!

Many people who are Deaf communicate with sign language and consider themselves to be members of a cultural and linguistic minority group. They refer to themselves as Deaf with a capital “D,” and may be offended by the term “hearing impaired.” Others may not object to the term, but in general it is safest to refer to people who have hearing loss but who communicate in spoken language as “hard of hearing” and to people with profound hearing losses as Deaf or deaf.

People Who Use Wheelchairs or Have Mobility Impairments

PEOPLE WHO USE WHEELCHAIRS have different disabilities and varying abilities. Some can use their arms and hands. Some can get out of their wheelchairs and even walk for short distances.

◆ Wheelchair users are people, not equipment. Don’t lean over someone in a wheelchair to shake another person’s hand or ask a wheelchair user to hold coats. Setting your drink on the desktop attached to someone’s wheelchair is a definite no-no.

◆ Don’t push or touch a person’s wheelchair; it’s part of her personal space. If you help someone down a curb without waiting for instructions, you may dump her out of the chair. You may detach the chair’s parts if you lift it by the handles or the footrest.

◆ Keep the ramps and wheelchair-accessible doors to your building unlocked and unblocked. Under the ADA, displays should not be in front of entrances, wastebaskets should not be in the middle of aisles and boxes should not be stored on ramps.
◆ Be aware of wheelchair users’ reach limits. Place as many items as possible within their grasp. And make sure that there is a clear path of travel to shelves and display racks. When talking to a wheelchair user, grab your own chair and sit at her level. If that’s not possible, stand at a slight distance, so that she isn’t straining her neck to make eye contact with you.

◆ If the service counter at your place of business is too high for a wheelchair user to see over, step around it to provide service. Have a clipboard handy if filling in forms or providing signatures is expected.

◆ If your building has different routes through it, be sure that signs direct wheelchair users to the most accessible ways around the facility. People who walk with a cane or crutches also need to know the easiest way to get around a place, but stairs may be easier for them than a ramp. Ensure that security guards and receptionists can answer questions about the most accessible way around the building and grounds.

◆ If the nearest public restroom is not accessible or is located on an inaccessible floor, allow the person in a wheelchair to use a private or employees’ accessible restroom.

◆ People who use canes or crutches need their arms to balance themselves, so never grab them. People who have limited mobility may lean on a door for support as they open it. Pushing the door open from behind or unexpectedly opening the door may cause them to fall. Even pulling out or pushing in a chair may present a problem. Always ask before offering help.

◆ If you offer a seat to a person who has limited mobility, keep in mind that chairs with arms or with higher seats are easier for some people to use.

◆ Falls are a big problem for people who have limited mobility. Be sure to set out adequate warning signs after washing floors. Also put out mats on rainy or snowy days to keep the floors as dry as possible. (Make sure they don’t bunch up and make the floor impassable for wheelchair users.)
People who do not have a visible disability may have needs related to their mobility. For example, a person with a respiratory or heart condition may have trouble walking long distances or walking quickly. Be sure that your museum, hotel or department store has ample benches for people to sit and rest on.

Some people have limited use of their hands, wrists or arms. Be prepared to offer assistance with reaching for, grasping or lifting objects, opening doors and display cases, and operating vending machines and other equipment.

**People Who Are Blind**

**PEOPLE WHO ARE BLIND** know how to orient themselves and get around on the street. They are competent to travel unassisted, though they may use a cane or a guide dog. A person may have a visual disability that is not obvious. Be prepared to offer assistance—for example in reading—when asked.

Identify yourself before you make physical contact with a person who is blind. Tell him your name and your role if it’s appropriate, such as security guard, usher, case worker, receptionist or fellow student. And be sure to introduce him to others who are in the group, so that he’s not excluded.

If a new customer or employee is blind or visually impaired, offer him a tour of your facility.

If you have changed your facility (i.e., rearranged the furniture) notify your customers who are blind of the changes.

People who are blind need their arms for balance, so offer your arm—don’t take his—if he needs to be guided. (It is however appropriate to guide a blind person’s hand to a banister or the back of a chair to help direct him to a stairway or a seat.)
◆ If the person has a guide dog, walk on the side opposite the dog. As you are walking, describe the setting, noting any obstacles, such as stairs ('up' or 'down') or a big crack in the sidewalk. Other hazards include: revolving doors, half-opened filing cabinets or doors, and objects protruding from the wall at head level such as hanging plants or lamps. If you are going to give a warning, be specific. Hollering, "Look out!" does not tell the person if he should stop, run, duck or jump.

◆ If you are giving directions, give specific, nonvisual information. Rather than say, "Go to your right when you reach the office supplies," which assumes the person knows where the office supplies are, say, "Walk forward to the end of this aisle and make a full right."

◆ If you need to leave a person who is blind, inform him first and let him know where the exit is, then leave him near a wall, table, or some other landmark. The middle of a room will seem like the middle of nowhere to him.

◆ Don't touch the person's cane or guide dog. The dog is working and needs to concentrate. The cane is part of the individual's personal space. If the person puts the cane down, don't move it. Let him know if it's in the way.

◆ Offer to read written information—such as the menu, merchandise labels or bank statements—to customers who are blind. Count out change so that they know which bills are which.

◆ If you serve food to a person who is blind, let him know where it is on the plate according to a clock orientation (twelve o'clock is furthest from them, six o'clock is nearest). Remove garnishes and anything that is not edible from the plate. Some patrons may ask you to cut their food; this can be done in the restaurant's kitchen before the meal is served.
People With Low Vision

A PERSON WHO HAS LOW VISION may need written material in large print. A clear font with appropriate spacing is just as important as the type size. Labels and signs should be clearly lettered in contrasting colors. It is easiest for most people with low vision impairments to read bold white letters on black background. Avoid using all uppercase letters because it is more difficult for people with low vision to distinguish the end of a sentence.

- Good lighting is important, but it shouldn't be too bright. In fact, very shiny paper or walls can produce a glare that disturbs people's eyes.

- Keep walkways clear of obstructions. If people with low vision regularly use your facility as customers or employees, inform them about any physical changes, such as rearranged furniture, equipment or other items that have been moved.

People Who Are Deaf or Have a Hearing Loss

AMERICAN SIGN LANGUAGE (ASL) is an entirely different language from English, with a syntax all its own. Speech reading (lip reading) is difficult for people who are Deaf if their first language is ASL because the majority of sounds in English are formed inside the mouth, and it's hard to speech read a second language.

People who are hard of hearing, however, communicate in English. They use some hearing but may rely on amplification and/or seeing the speaker's lips to communicate effectively.

There is a range of communication preferences and styles among people with hearing loss that cannot be explained in this brief space. It is helpful to note that the majority of late deafened adults do not communicate with sign language, do use English and may be candidates for writing and assistive listening devices to help improve communication. People with cochlear implants, like other people with hearing loss, will usually inform you what works best for them.
When the exchange of information is complex—such as during a job interview or doctor's visit or when reporting a crime—the most effective way to communicate with a native signer is through a qualified sign language interpreter. For a simple interaction—such as ordering in a restaurant or registering for a hotel room—writing back and forth is usually okay.

Follow the person's cues to find out if she prefers sign language, gesturing, writing or speaking. If you have trouble understanding the speech of a person who is deaf or hard of hearing, let her know.

When using a sign-language interpreter, look directly at the person who is deaf, and maintain eye contact to be polite. Talk directly to the person ('What would you like?'), rather than to the interpreter ('Ask her what she'd like.')

People who are deaf need to be included in the decision-making process for issues that affect them; don't decide for them.

Before speaking to a person who is deaf or hard of hearing, make sure that you get her attention. Depending on the situation, you can extend your arm and wave your hand, tap her on the shoulder or flicker the lights.

Rephrase, rather than repeat, sentences that the person doesn't understand.

When talking, face the person. A quiet, well-lit room is most conducive to effective communication. If you are in front of the light source—such as a window—with your back to it, the glare may obscure your face and make it difficult for the person who is hard of hearing to speech read.

Speak clearly. Most people who are hard of hearing count on watching people's lips as they speak to help them understand. Avoid chewing gum, smoking or obscuring your mouth with your hand while speaking.
There is no need to shout at a person who is deaf or hard of hearing. If the person uses a hearing aid, it will be calibrated to normal voice levels; your shout will just sound distorted.

People who are deaf (and some who are hard of hearing or have speech disabilities) make and receive telephone calls with the assistance of a device called a TTY (short for teletypewriter; also called a TDD). A TTY is a small device with a keyboard, a paper printer or a visual display screen and acoustic couplers (for the telephone receiver).

When a TTY user calls a business that does not have a TTY, she places the call through her state's relay service. Likewise, a business that does not have a TTY can reach a customer who is a TTY user through the relay service. If you receive a relay call, the operator will identify it as such. Please do not hang up; this is the way that people who are deaf are able to place an order at your pizza parlor, call your store to find out what hours you are open, or make a reservation at your restaurant.

People With Speech Disabilities
A PERSON WHO HAS HAD A STROKE, is severely hard of hearing, uses a voice prosthesis or has a stammer or other type of speech disability may be difficult to understand.

Give the person your full attention. Don't interrupt or finish the person's sentences. If you have trouble understanding, don't nod. Just ask him to repeat. In most cases the person won't mind and will appreciate your effort to hear what he has to say.

If you are not sure whether you have understood, you can repeat for verification.

If, after trying, you still cannot understand the person, ask him to write it down or to suggest another way of facilitating communication.

A quiet environment makes communication easier.

Don't tease or laugh at a person with a speech disability. The ability to communicate effectively and to be taken seriously is important to all of us.
Persons of Short Stature

THERE ARE 200 DIAGNOSED TYPES OF GROWTH-RELATED DISORDERS that can cause dwarfism and that result in the person being 4 feet 10 inches or less in height. For an adult, being treated as cute and childlike can be a tough obstacle.

◆ Be aware of having necessary items within the person's reach to the maximum extent possible.

◆ Be aware that persons of short stature count on being able to use equipment that is at their height. Be sensitive about not using lower telephones, bank counters and urinals if they are in limited supply.

◆ As with people who have other disabilities, never pet or kiss a person of short stature on the head.

◆ Communication can be easier when people are at the same level. Persons of short stature have different preferences. You might kneel to be at the person's level, stand back so you can make eye contact without the person straining her neck (this can be hard to do in a crowded room); or sit in a chair. Act natural and follow the person's cues.

People With Cerebral Palsy

AS A RESULT OF INJURY TO THE CENTRAL NERVOUS SYSTEM, people with cerebral palsy (CP) have difficulty controlling their muscles. Follow the tips below for interacting with persons who have speech disabilities.

◆ Many people with CP have slurred speech and involuntary body movements. Your impulse may be to discount what they have to say, based on their appearance. Monitor your responses and interact with the person as you would with anyone else.

◆ A person who may appear to be drunk, sick or have a medical emergency might in fact have CP or another disability. Get the facts before acting on your first impression, whether the situation is business, social or law enforcement.

Tourette Syndrome

PEOPLE WITH TOURETTE SYNDROME may make vocalizations or gestures such as tics that they cannot control. A small percentage of people with Tourette syndrome involuntarily say ethnic slurs or obscene words. An employee or other person with Tourette syndrome will benefit from the understanding and acceptance of co-workers and others.

◆ If a person with Tourette makes vocalizations during a conversation, simply wait for him to finish, then calmly continue.

◆ The more the person tries to contain these urges, the more the urges build up. It may be helpful for a person with Tourette to have the option to leave the meeting or conversation temporarily to release the build-up in a private place.

People Who Look Different

A DIFFERENT ISSUE confronts people who may not be limited in their life activities, but who are treated as if they have a disability because of their appearance. People with facial differences, such as cleft lip or palate, cranio-facial disfigurement, or a skin condition; people who are way above or way below the average height or weight; people who may display visible effects of medication, such as a tremor—in short, people who look different—have the frequent experience of finding people staring at them, looking away or looking through them as if they are invisible.

◆ Everyone needs to have a positive self-image to be a fully participating member of society. Be sure that you don't contribute to stigmatizing people who look different.

◆ If the situation is appropriate, strike up a conversation and include the person in whatever is going on, just as you would for an "average-looking" person.
Hidden Disabilities

NOT ALL DISABILITIES ARE APPARENT. A person may make a request or act in a way that seems strange to you. That request or behavior may be disability-related.

For example, you may give seemingly simple verbal directions to someone, but the person asks you to write the information down. He may have a learning disability that makes written communication easier for him. Or an apparently healthy person may ask to sit, rather than stand, in line. This person may be fatigued from a condition such as cancer, or may be feeling the effects of medication.

Even though these disabilities are hidden, they are real. Please respect the person’s needs and requests whenever possible.

Epilepsy (Seizure Disorders)

EPILEPSY IS A NEUROLOGICAL CONDITION characterized by seizures that happen when the electrical system of the brain malfunctions. The seizures may be convulsive, or the person may appear to be in a trance. During complex partial seizures, the person may walk or make other movements while he is, in effect, unconscious.

♦ If a person has a seizure, you cannot do anything to stop it. If he has fallen, be sure his head is protected and wait for the seizure to end.

♦ When a seizure has ended, the person may feel disoriented and embarrassed. Try to ensure that he has privacy to collect himself.

♦ Be aware that beepers and strobe lights can trigger seizures in some people.

♦ Many people with CP have slurred speech and involuntary body movements. Your impulse may be to discount what they have to say, based on their appearance. Monitor your responses and interact with the person as you would with anyone else.
A person who may appear to be drunk, sick or have a medical emergency might in fact have CP or another disability. Get the facts before acting on your first impression, whether the situation is business, social or law enforcement.

**Multiple Chemical Sensitivity (MCS) and Respiratory Disabilities**

**PEOPLE WITH MCS AND RESPIRATORY DISABILITIES** such as asthma or emphysema react to toxins in the air. Stale air, fumes from cleaning products, perfume, carpeting, air freshener or even the fumes from magic markers can trigger a severe reaction.

- Try to avoid spray-cleaning tables, windows or other surfaces while people are in your place of business. If you must use a spray product, spray or pour it closely into the cloth, not into the air. Use less-toxic products when possible. Request that staff who have contact with the public go easy on fragranced body-care products like cologne, hair spray, hand lotion, and after-shave.

- Maintaining good ventilation and overall good indoor air quality will not only benefit your customers who have MCS and respiratory disabilities, it will also help you and all of your employees stay healthier and more alert.

- Second-hand smoke can be particularly harmful to people with MCS or respiratory disabilities. Follow and enforce no-smoking regulations, including in restrooms and stairwells. Discourage smokers from congregating at the entrance to your business. If appropriate, designate a separate smoking area where the door is kept closed and the air ventilates to the outside.

**HIV & AIDS**

**PEOPLE WITH HUMAN IMMUNODEFICIENCY VIRUS (HIV) or Autoimmune Deficiency Syndrome (AIDS) have impaired immune systems, so their bodies have trouble fighting off infections.**

- You can't catch HIV from casual contact such as shaking hands, so don't be afraid of touching or being touched by a person with AIDS.

- A person with HIV or AIDS, however, is at significant risk of picking up an airborne infection. Be conscious of not putting someone else at risk. If you have a respiratory infection or any other easily transmittable illness, be considerate of all your customers and employees and stay home, if possible.

- Many people with AIDS feel stigmatized. By simply greeting or shaking the person's hand, you are letting him know that he is accepted. It will mean a lot to him.

**A WORD ABOUT CONFIDENTIALITY:**

You may really care or you may just be curious about a person with a disability who is in crisis, suddenly ill, or misses work for unexplained reasons. In spite of your concern, please respect the privacy of a person with a disability. Allow him to discuss his situation if and when he feels comfortable doing so.
Psychiatric Disabilities (Mental Illness)

People with psychiatric disabilities may at times have difficulty coping with the tasks and interactions of daily life. Their disorder may interfere with their ability to feel, think or relate to others. Most people with psychiatric disabilities are not violent. One of the main obstacles they face is the attitudes that people have about them. Because it is a hidden disability, chances are you will not even realize that the person has a mental health condition.

- Stress can affect the person’s ability to function. Try to keep the pressure of the situation to a minimum.

- People who have psychiatric disabilities have varying personalities and different ways of coping with their disability. Some may have trouble picking up on social cues; others may be supersensitive. One person may be very high energy, while someone else may appear sluggish. Treat each person as an individual. Ask what will make him most comfortable and respect his needs to the maximum extent possible.

- In a crisis, stay calm and be supportive as you would with anyone. Ask how you can help, and find out if there is a support person who can be sent for. If appropriate, you might ask if the person has medication that he needs to take.
Developmental Disabilities

**PEOPLE WITH DEVELOPMENTAL DISABILITIES LEARN SLOWLY.** They have a hard time using what they have learned and applying it from one setting or situation to another.

- Speak to the person in clear sentences, using simple words and concrete—rather than abstract—concepts. Help her understand a complex idea by breaking it down into smaller parts.

- Don’t use baby talk or talk down to people who have developmental disabilities. Gauge the pace, complexity, and vocabulary of your speech according to theirs.

- Remember that the person is an adult and, unless you are informed otherwise, can make her own decisions.

- People with developmental disabilities may be anxious to please. During an interview, the person may tell you what she thinks you want to hear. In certain situations, such as law enforcement or a doctor’s examination, it can have grave consequences if your interview technique is not effective. Questions should be phrased in a neutral way to elicit accurate information. Verify responses by repeating each question in a different way.

- It can be difficult for people with developmental disabilities to make quick decisions. Be patient and allow the person to take their time.

- Clear signage with pictograms can help a person who has developmental disabilities to find her way around a facility.

- People with developmental disabilities often rely on routine and on the familiar to manage work and daily living. Be aware that a change in the environment or in a routine may require some attention and a period of adjustment.

People with Learning Disabilities

**LEARNING DISABILITIES ARE LIFELONG DISORDERS** that interfere with a person’s ability to receive, express or process information. Although they have certain limitations, most people with learning disabilities have average or above-average intelligence. You may not realize that the person has a learning disability because he functions so well. Or you may be confused about why such a high-functioning person has problems in one aspect of his work.

- People with dyslexia or other reading disabilities have trouble reading written information. Give them verbal explanations and allow extra time for reading.

- Don’t be surprised if you tell someone very simple instructions and he requests that you write them down. Because spoken information gets “scrambled” as he listens, a person who has a learning disability such as auditory processing disorder may need information demonstrated or in writing.

- Ask the person how you can best relay information. Be direct in your communication. A person with a learning disability may have trouble grasping subtleties.

- It may be easier for the person to function in a quiet environment without distractions, such as a radio playing, people moving around or loudly patterned curtains.

People with Traumatic (or Acquired) Brain Injury

**PEOPLE WITH TRAUMATIC BRAIN INJURY** have had damage to the brain usually as the result of trauma, such as an accident or stroke.

- Some of the factors that affect persons with learning disabilities also apply to persons with traumatic brain injury. People with brain injury may have a loss of muscle control or mobility that is not obvious. For example, a person may not be able to sign her name, even though she can move her hand.
A person with a brain injury may have poor impulse control. The person may make inappropriate comments and may not understand social cues or "get" indications that she has offended someone. In her frustration to understand, or to get her own ideas across, she may seem pushy. All of these behaviors arise as a result of the injury.

A person with a brain injury may be unable to follow directions due to poor short-term memory or poor directional orientation. She may ask to be accompanied, or she may use a guide dog for orientation, although she does not appear to be mobility impaired.

If you are not sure that the person understands you, ask if she would like you to write down what you were saying.

The person may have trouble concentrating or organizing her thoughts, especially in an overstimulating environment, like a crowded movie theater or transportation terminal. Be patient. You might suggest going somewhere with fewer distractions.

Service Animals

Some people who are Deaf, blind or have low vision, or who have traumatic brain injury, seizure disorder, or a range of other disabilities may use a service animal to assist them with daily living.

While you may inquire whether an animal is a service animal, the person may not have information identifying it as such. This means that in general, you will need to modify a "no animals" policy to allow the person to enter with her service animal. Barring a direct threat to health and safety, this requirement of the Americans with Disabilities Act is generally thought to take precedence over any health codes, such as those for restaurants, and personal preferences, such as those of taxi drivers, prohibiting pets.

Service animals are generally highly trained and well behaved. You may ask the person to remove the animal if she does not have the animal under her control.
Emergency Evacuation Procedures

People with disabilities must be considered in any facility's evacuation plan.

- Compile a voluntary list of people with disabilities who are regulars at your facility, such as employees, students or residents. While you are compiling this list, let people know that even though they may not consider themselves to be "disabled," they should be included if they may need help during an emergency. For example, this might apply to someone whose asthma may be triggered by stress or smoke. Keep the list updated to include people who are temporarily disabled, such as a pregnant woman or someone with a broken leg.

- Interview each individual on the list to plan the most effective way to assist them in case of an emergency. For example, a person with a cognitive disability may get confused and need assistance in following directions. A person who is blind, even if he knows his way around the facility, will need to be accompanied during an emergency, especially when large numbers of people are involved.

- Also develop a plan, including a voluntary sign-in, for an emergency that may affect people who are not attached to the facility, such as customers, theatergoers, patients or other members of the public.

- Practice the evacuation procedures and keep your plans up to date.

Conflict Management

Sometimes conflicts arise between people with disabilities and the places they visit for fun, work, health care or education. These conflicts are usually the result of misunderstanding or a lack of information. Sometimes conflicts develop between people with disabilities who have conflicting needs. For example, a person who is hard of hearing cannot hear the proceedings with the window open, but a person with Multiple Chemical Sensitivity needs the window open for fresh air; someone who uses a guide dog may run into a conflict with a person who has an anxiety disorder and an extreme fear of dogs.

All of these situations call for flexibility, patience, creativity, and open communication—a willingness to listen to the other guy's perspective and to learn.

Sometimes good faith efforts are not enough, and parties have difficulty working out their differences. In these cases, consider using the services of a skilled mediator.

A Final Word

People with disabilities are individuals with families, jobs, hobbies, likes and dislikes, and problems and joys. While the disability is an integral part of who they are, it alone does not define them. Don't make them into disability heroes or victims. Treat them as individuals.
Signage
Note accessibility of your business or program by using the symbols below in advertising, on flyers, and as signage at the location of the service. Be sure to use the verbal description, along with the symbol. As signage, enlarge the symbol and place it where it will be most visible.

WHEELCHAIR ACCESS

ASSISTIVE LISTENING FOR PEOPLE WHO ARE HARD OF HEARING

SIGN-LANGUAGE INTERPRETER

TTY/TDD