



Home Office Adaptations

Working from a home-based office can be an excellent option for some persons with disabilities. The office can be customized to match the user's needs without the usual concern for the impact on co-workers. For example, a person who cannot use his/her hands to type may use a computer with a voice recognition program to input information. Talking to dictate messages could cause a problem in a crowded office, but a person can make this and other changes to a home office setting without disturbing their co-workers.

For persons who use wheelchairs:

A disability can sometimes prevent a person from freely entering, moving about, and exiting their homes. Good planning and the proper application of technology can maximize independence and quality of life for all persons.

- The widths of the door openings are crucial. There should generally be at least 32 inches of space to properly enter and exit. Special swing-away hinges can be cheaply installed to increase the free space by as much as 3 inches. If the entrance is accessed from a 90° angle there must be additional room to pivot during the maneuver.
- The carpeting should be short, as heavy shag-type carpets require extra effort for wheelchair users. Thick padding under carpet can also make movement in a wheelchair more difficult.

Furniture:

Furniture is the most important component in any office. It is vital that furniture is adjustable and time is taken to properly fit it to the user. Even the most expensive chair is useless if it is not properly set up for the individual user.

A few quick tips on ergonomics, or the science of fitting tools (in this case the tool is a chair) to the human body:

- The device should conform to the user's body, not force the user's body to conform to the device. If a product forces the user into a posture that feels awkward, it will probably eventually cause injury.



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- A chair/desk system should place the user in a position where the elbows and hips should be bent at approximately 90 degrees, but this is just the general starting point. Shifting and moving while working is good for you, because it moves the stress around to different muscles. Never stay in one position for too long.



Computer Workstation

- A person should never reach *up* with the hands and forearms to reach the keyboard. If the table is too high, the chair should be raised to enable the forearms to be parallel with the floor. A footstool may then be needed to keep the user's feet well supported.
- If a product causes pain - stop using it!

If purchasing new furniture is not an option, existing furniture may be adapted to the proper height in low-tech ways. Furniture leg extenders are small blocks of wood that can be purchased (one for every leg) that will elevate any work surface to the desired height. If all else fails, telephone books, pillows and other objects can be used to raise the user (if needed) and customize a work site.

Persons with limitations in hand function:

Difficulties with typical office chores such as handwriting, hole punching, answering the phone, etc. may be overcome by using assistive technology.

- Some find it difficult to write on paper because of arthritis, weak grip or other hand injury. Built-up handles on pens and other adapted handwriting tools enable persons with little or no grip strength to write letters, sign checks, etc.



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Adapted Pen

- An adapted hole punch with a bar that adds additional leverage allows persons with limited arm and hand strength to organize materials.
- Persons who have difficulty holding a book in the proper position when reading may choose from several varieties of book holders and page-turners to assist them. These products range from low-tech stands, which merely hold the book, to high-tech systems, which will turn pages automatically.
- Phone headsets and speaker phones allow the user to work without the stress of holding the phone in place with the hands or shoulder. For those who wish to use a conventional phone but cannot easily hold it, a strap can be purchased which secures it to the user's hand.
- Special scissors can be obtained which open automatically and require less grip strength than conventional ones. Another type of adapted scissors has wheels and cuts as it rolls over a surface.
- Computer keyboards and mice can be adapted to enable use by persons who cannot type in the conventional manner. Extra large keys, foot operated mice, head controlled mice and software that recognizes the user's voice make the job easier for some. Persons with severe physical disabilities can use a single switch and scanning software to fully exploit their potential on a computer.

Persons with visual impairments:

Persons with visual impairments have many choices in the field of assistive technology.

- Computer screen enlargement software and enlarged identification stickers on keyboards are some of the many products which assist computer users with mild to moderate visual loss. These are good solutions for some users because they are inexpensive and simple to use.
- Large numbered clocks, talking clocks, talking calendars, and large button telephones are also available.



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- Magnifiers come in many varieties. Some are hand-held, others have a stand to position them, and still others are mounted on pens or other writing utensils. Some have built-in lights to assist those who require more light when reading.



Assorted Magnifiers

- Closed circuit television systems allow more intense magnification of written materials. The user manipulates the written material under a small camera, and the image is transmitted to a television screen.
- “Screen reader” programs read information from the computer screen. The user can control the speed and voice character of the output device.
- Optical character recognition technology uses a computer and a scanner to audibly “read” any hard copy document to the user. Once the computer is properly set up, the user merely places the document on the scanner surface, presses a button, and the document is read aloud by the computer.

Persons with hearing loss:

Persons with hearing loss have many options as well:

- Adjustable telephone ringers can be purchased that vary volume, tone and ring pattern.
- Computers can be easily adapted to use visual notices instead of the usual auditory alert sounds.
- Small amplifiers can be attached directly to the earpiece of the phone receiver for those with mild to moderate hearing loss.
- TTYs, or text telephones allow persons who are deaf (or cannot speak) to call and receive calls from any phone jack. These devices have ringers which have a visual signal (in lieu of ringers) to alert the user.



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- Signals from devices such as pagers, telephones, smoke/fire alarms or doorbells can be adapted with a vibrating or visual alert for persons with severe or total hearing loss.

RESOURCES

Accent Information

P.O. Box 700
Bloomington, IL 61702
309/378-2961

Access Foundation

P.O. Box 356
Malverne, NY 11565
516/887-5798

AdaptAbility

P.O. Box 515
Colchester, CT 06415-0515
800/243-9232
www.adaptability.com

Adaptive Environment Center, Inc.

374 Congress St., Suite 301
Boston, MA 02210
617/695-1225
www.adaptenv.com

ADCO

4242 South Broadway
Englewood, Colorado 80113
303/794-3928
800/726-0851
www.adcohearing.com

American Association of Retired Persons

601 E Street NW

Washington, DC 20049

www.aarp.org

American Society on Aging
833 Market Street, Suite 511
San Francisco, CA 94103-1824
415/974-9600

www.asaging.org

Amputees in Motion

P.O. Box 2703
Escondido, CA 92033
619/454-9300

www.faimonline.org

The Arc of the United States

1010 Wayne Ave., Suite 650
Silver Spring, MD 20910
301-565-3842

www.thearc.org

Arthritis Foundation

P.O. Box 7669
Atlanta, GA 30357-0669
404/872-7100

www.arthritis.org

Assisted Access, Inc.

P.O. Box 230
Lake Villa, IL 60046-0230
800/950-9655

www.nfss.com

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Denver, CO 80203
303/315-1280 Main
800/255-3477 within Colorado
303/837-8964 TTY
303/837-1208 FAX
www.uchsc.edu/atp

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Western Slope Technical Assistance
Center (WestAC)
2897 North Ave., Module 3A
Grand Junction, CO 81501
970/248-0876 Main
970/248-0877 FAX/TTY
www.uchsc.edu/atp

Barrier Free Environments
P.O. Box 30634
Raleigh, NC 27622
919/782-7823
www.design.ncsu.edu/cud

Barrier Free Lifts
9230 Prince William St.
Manassas, VA 20110
800/582-8732
www.bfl-inc.com

Beyond Sight
5650 S. Windemere
Littleton, CO 80120
303/795-6455
www.beyondsight.com

Brain Injury Association of America,
8201 Greensboro Dr., Suite 611,

McLean, VA 22102
703/761-0750
www.biausa.org

Capabilities, Inc.
6805 W 88th Ave
Westminster, CO 80021
720/214-0339
www.capabilitiesinc.net

Center for Accessible Housing
NCSU School of Design
P.O. Box 8613
Raleigh, NC 27695
919/515-3082
www.design.ncsu.edu/cud

Dr. Leonard's Healthcare
100 Nixon Lane
P.O. Box 7821
Edison, NJ 08818
800/785-0880
www.drleonards.com

Gold Violin
P.O. Box 261639
San Diego, CA 92196
877/648-8465
www.goldviolin.com

Harriet Carter
Dept. 10
North Wales, PA 19455
800/377-7878
www.harrietcarter.com

Home Automation Association
808 17th St. NW, Suite 200



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UNIVERSITY OF COLORADO ANSCHUTZ MEDICAL CAMPUS

Washington, DC 20006

202/333-8579

www.homeautomation.org

Independent Living Aids, Inc.

27 E. Mall

Plainview, NY 11803

800/537-2118

www.independentliving.com

Information Center for Individuals
with Disabilities

Ft. Point Place, 27-43 Wormwood St.

Boston, MA 02210

617/727-5540

www.disability.net

LS & S Group, Inc.

P.O. Box 673

Northbrook, IL 60065

800/468-4789

www.lssgroup.com

Maxi Aids

P.O. Box 3209

Farmingdale, NY 11735

800/522-6294

www.maxiaids.com

Miles Kimball

41 W. 8th Avenue

Oshkosh, WI 54906

702/617-3500

www.mileskimball.com

National Assoc. of Home Builders

NAHB Nat'l Research Center

400 Prince Georges Blvd.

Upper Marlboro, MD 20772

301/249-4000

www.nahb.org

North Coast Medical, Inc.

18305 Sutter Blvd.

Morgan Hill, CA 95037-2845

www.ncmedical.com

PAM Assistance Center

601 W. Maple

Lansing, MI 48906

800/274-7426

Paralyzed Veterans of America

Information Specialist

801 18th St. NW

Washington, DC 20006

202/416-7710

www.pvaorg.com

Pathways HomeCare Center

11091 E. Mississippi Ave.

Aurora, CO 80010

303/365-2100

www.pathwayshomecare.org

Pathways HomeCare Center

1500 West Littleton Blvd., Unit #127

Littleton, CO 80120

303-798-5588

www.pathwayshomecare.org

Post-Polio Health International (PHI)

4207 Lindell Boulevard, #110

Saint Louis, Missouri 63108-2915

USA



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314-534-0475

www.post-polio.org

Sammons Preston

P.O. Box 5071

Bolingbrook, IL 60040-5071

800/323-5547

www.sammonspreston.com

Walter Drake

20 Drake Building

Colorado Springs, CO 80915

800/525-9291

www.wdrake.com

StayACTIVE Shoppes

550 E. Thornton Pkwy, #212

Thornton, CO 80229

303/892-6000

www.stayactiveshoppes.com

Youcan Toocan

2223 S. Monaco Pkwy.

Denver, CO 80222

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