

What You Need to Know about Assistive Technology

There are many choices available for Assistive Technology (AT), from low tech and simple, to high tech and complex. This article provides an overview of what is available, how it can help and tips on how to choose a device that best meets the needs of an individual.

What is Assistive Technology?

“Any item, piece of equipment or product system, whether acquired commercially, off-the shelf, modified or customized, that is used to **increase, maintain or improve functional capabilities** of individuals with disabilities”

What types of daily activities and functions can be improved by using AT?

- Personal Care-Activities of Daily Living (ADLs)
- Independent Living-Instrumental Activities of Daily Living (IADLs)
- Avocation-leisure, recreation
- Education-benefit from instruction
- Employment-economic viability
- ‘Quality of Life’

How has AT benefitted people of different ages?

Studies have shown the following outcomes for many people of different age groups using AT:

- School age children able to remain in a regular classroom or reduce school-related services
- Working-age individuals able to reduce dependency on family members and paid assistants, or able to increase their earnings.
- Elderly individuals able to reduce dependence on others, reduce dependence on paid assistance or avoid entering a nursing home.

Do most people really use their AT devices?

Fifty percent (50%) of assistive technology is abandoned. In part this is a good news story – individuals get better and can do without. However, there is a large amount of money wasted due to preventable reasons:

- Failure to consider personal preferences and other options in choosing the AT device.
- Lack of training on how to use the device
- Lack of access to information about maintenance of the device
- Lack of knowledge about or access to needed repairs of the device

What can be done to better match the person and technology to each other and make sure it will really be used?

- Carefully identify functional needs and tasks to be addressed.
 - Be specific and clear about the function you want to improve
 - Consider getting a referral for a functional appraisal – e.g. from an assistive technology specialist, and from a medical practitioner for durable medical equipment (DME) or other medical devices.
- Look at the full range of options – low tech to high tech.
 - Ask specific questions, go back for clarification, if needed.
 - When possible, talk to others who have used the device.
- Give the likely options a trial run.

- Get appropriate training for use of the device.
- Make sure to learn about the necessary support systems – maintenance, troubleshooting, where to get repairs.

Categories of AT and examples of devices for each:

- Aids for Daily Living -self-help aids for activities such as cooking, eating, dressing, toileting, bathing, home maintenance.
 - Reachers and grabbers
 - Dressing stick with extended shoe horn
 - Shower chair and grab bars
 - Raised toilet seat with handles, grab bars
- Augmentative or Alternative Communication – electronic and non-electronic devices that provide means for expressive and receptive communication for those with limited or no speech.
 - Liberator, Ultimate Communicator
- Computer Access –
 - input and output devices (Braille, voice)
 - alternate access aids (headsticks, light pointers)
 - switches
 - modified or alternate keyboards (Big Keys keyboard)
 - Joystick Mouse
- Environmental Control Systems –systems that enable someone with limited mobility to control various appliances, security systems, lights, heat.
 - Voice-activated dimmer switches
 - Universal remote control
- Home and Work Site Modifications -structural adaptations, fabrications that remove or reduce physical barriers.
 - Ramps, lifts,
 - Raised dressing table or work bench for wheelchair access
 - Shower modifications with adjustable shower head on pole, shower seat
 - Pull out drawer with insert to serve as lower kitchen counter.
- Prosthetics and Orthotics - replacements or substitutes for missing or malfunctioning body parts, other orthotic aids.
 - Artificial limbs
 - Splints, braces.
- Seating and Positioning – to provide body stability, more functional positioning, reduce pressure on skin surfaces
 - Cushions
 - Contour seats
 - Lumbar supports
 - Halters

- Vision Impairment Aids
 - Handheld or stand magnifier
 - Closed-circuit magnification system (CCTV) for enlargement of print materials or projects
 - Braille or speech output screen reading devices and PDA's.
 - PC screen magnification.
 - Large print –measuring cups etc.

- Hearing Impairment – listening devices and amplifiers
 - Hearing aids, PocketTalker Pro
 - TTY (TeleTYpewriter) devices, cellular TTY
 - Listening devices such as infrared, FM loop systems
 - Visual and tactile alerting systems – such as flashing light on phone, for doorbell, or on smoke alarm

- Cognitive Impairment
 - International Picture Symbols
 - Pill organizer
 - Picture phone
 - Audio tape reminders
 - Pagers or cell phone text to prompt specific activities.

- Mobility Aids
 - Manual and electric wheelchairs, scooters
 - Walker, wheeled walker or cart with basket
 - Mobile bases for custom chairs

- Vehicle Modifications
 - Hand controls and ramp
 - Wheelchair and other lifts
 - Modified vans or other vehicles

Where can I find more information on AT?

Washington Assistive Technology Act Program (WATAP)

<http://watap.org>

A program serving Washington residents of all ages with disabilities of all types, their families, employers and employment service providers, educators, health care and social service providers, and others seeking information about assistive technology (AT) and accessible information technology. WATAP is located within the UW Center on Technology & Disability Studies and is guided by a consumer-majority advisory council.

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