



Assistive Technology for Continuing Independent Living

indata project

taking on disability together

What is Aging in Place?

As we age, physical changes can affect how we interact with our environment. These changes may impact our vision, hearing, mobility and communication or can just make everyday tasks more difficult to perform.

“Aging in place” means remaining in your own home for the later years of life instead of moving into an assisted living center or retirement community. In order for someone to stay in his or her home, changes often must be made to improve mobility, safety and much more. This is where the implementation of assistive technology can be introduced to allow people to stay in their homes longer. Assistive technology addresses areas of mobility, cognitive disorders, visual impairments and safety, among others.

The National Aging in Place website (www.naipc.org) provides many resources to help meet the needs of the aging population and to assist people in remaining independent in the housing of their choice. These resources include information on accessible home design and remodeling, financial services, elder law and healthcare.

AGING IN PLACE FACTS AND STATISTICS

The following are facts and statistics about aging in place, according to research done by the American Association of Retired Persons (AARP), National Association of Home Builders (NAHB) and MetLife Mature Marketing Institute.

- The number of people 65 and older in the United States is expected to increase to 55 million in 2020, to 70 million in 2030, and to 88.5 million – or 20% of the population – in 2050.
- 90% of seniors want to stay in their own homes as they age.
- 82% of seniors would prefer to stay in their homes even if they need day-to-day assistance or ongoing healthcare during retirement.
- 75% of adult children and 69% of aging parents think about the parents’ ability to live independently as they get older.
- 75% of home remodelers report an increase in inquiries related to aging in place.
- The NAHB predicts the aging in place remodeling market to be \$20 billion to \$25 billion. That is 10% of the overall home improvement industry.
- 49% of pre-retirees want to stay in their current homes, and 38% want to move to new homes in retirement.
- Falls are the leading cause of injury-related visits to the emergency room in the U.S. and the primary cause of accidental deaths (75%) in people over 65.

What is Assistive Technology?

Assistive technology (AT) is a term used to refer to adaptive, assistive or rehabilitative products or devices designed to allow people with disabilities or limited abilities caused by the aging process to increase their independence and lead more fulfilling lives.

While there are many types of AT, devices generally fall into three categories that are as follows:

- 1) Low-tech AT** is typically less expensive. This category often includes adaptations of devices that a person currently uses or devices that act as an extension of one's limbs. Some low-tech devices include canes and walkers, handheld magnifiers, large-print text, or grips for writing and food utensils.
- 2) Mid-tech AT** might take more training or have more electronic features than low-tech devices. However, this category is not as complicated or intricate as high-tech AT. Examples include closed-captioning on TV, video magnifiers, books on tape, environmental control units and wheelchairs.
- 3) High-tech AT** costs the most and is often more complex than the other types of AT. Training is often required for high-tech AT, which might include installation or in-depth instruction on their usage. AT that falls into this category includes power wheelchairs, voice-activated telephones, adaptive software for computer access, mobile technology, personal listening devices and digital hearing aids.

Why use Assistive Technology?

Although it may seem obvious in some situations, the rationale behind implementing AT is not always completely clear. Some common reasons are as follows:

- **Increase efficiency and/or effectiveness:** In many cases, a person is capable of performing essential tasks around his or her home without accommodation. However, independence and quality of life may be improved with the implementation of AT.
- **Decrease degenerative nature of disability:** Degenerative physical and vision conditions may become aggravated when a person performs certain activities in and around the home. In these situations, AT can often replace the need to perform these damaging actions, thereby delaying the degenerative nature of the disability.
- **Avoid injury:** There may be certain tasks in the home that may increase the likelihood of injury. Examples include the increased likelihood of falls by a person who has difficulty with walking, or the increased likelihood of injury by someone who doesn't see well in their home environment. Implementing a scooter or white cane may assist in avoiding injury in these situations.

Assistive Technology Solutions

The following are AT solutions a person can use to help him or her age in place.

HOME SAFETY

When determining whether or not a person should continue living in his or her own home, one often thinks in terms of safety. Everyone wants to make sure their friends and loved ones live happily in a safe environment.

There is AT to help with:

- Mobility and balance, such as wheelchairs, walkers, canes, handrails, sloped walkways or lifts
- Dressing oneself easily, such as buttoning a shirt, using a zipper, and putting on socks or shoes
- Getting in and out of a car
- Getting on and off the toilet
- Getting in and out of the shower or bathtub
- Reaching items that are too low or too high

VISION ISSUES

Vision loss due to conditions such as diabetes or macular degeneration is common among people over the age of 60. However, that should not stop a person from being able to complete daily activities such as driving a car or reading the newspaper.

Examples of AT to help with vision loss include:

- Daily medication managers that enlarge prescription directions or allow one to record them verbally
- Telephones and remote controls with large buttons
- Talking caller ID for telephones
- Portable and handheld video magnifiers for reading books, bills or magazines
- Computer keyboards with enlarged keys
- Large-print text
- Closed-captioning for TV and movies
- Magnifying mirrors

HARD OF HEARING

A multitude of hearing aids are now available, which is important because any one device will not work the same for each and every user of that device. In addition, there are several hearing-related AT products that make it easier to stay in your home safely if you have hearing loss.

Hearing-related AT can help with:

- Being notified when someone is leaving or entering a room
- Waking up in the morning with extra-loud alarm clocks and bed shakers
- Being alerted to a fire by smoke detectors with strobe lights
- Being notified of incoming phone calls with flashing lights

COMMUNICATION

Augmentative and alternative communication (AAC) devices are AT devices that help those who have lost their ability to communicate, as sometimes happens to those who suffer a stroke. Speech and language therapy is often part of the treatment and rehabilitation after a stroke.

Nobody wants to lose the ability to communicate their thoughts to others, and AAC devices can help one retain that essential part of his or her daily life.

AAC-related AT can help with:

- Making decisions and completing tasks
- Communicating basic wants and needs
- Expressing important information to healthcare providers
- Executive functions, such as audio scheduling and voice-based notes or to-do lists
- Communication for people with mobility impairments by using technology that tracks the movement of their eyes

MEMORY AND COGNITION

It is also very important for people who want to continue living in their homes to be able to remember things like the location of one's keys, turning off the stove or water faucet, and taking medication properly.

There is AT that can help with:

- Creating verbal to-do lists and reminders
- Pill reminder clocks with several alarms for taking medication
- Home automation tasks
- Home care monitoring systems

Much of this AT may already be in your pocket, like a smartphone or watch. Devices like the iPhone may help someone who has difficulty remembering lists or other information. Using these everyday devices also makes it less obvious that the user requires extra memory assistance.

WRITING

Arthritis is very common in people age 60 and older, yet they still may need to write checks, sign their name or write letters.

AT products that can help a person's writing include:

- Pens adapted to fit a person's hand better or allow them to write steadier
- Weighted pens that offer added stability
- Large-cushioned writing utensils for comfortable use
- Voice-activated electronic devices

Note: When purchasing AT, it is important to consider not only your immediate needs but how your conditions may change in the future. If possible, consult an aging-in-place professional to ensure all your needs are met and that the equipment and devices you receive are quality.

Resources for Continuing Independent Living and Aging in Place in Indiana

Easterseals Crossroads has many resources including physical therapy and occupational therapy services, adult day services, and much more.

Visit www.eastersealscrossroads.org for more information.

The INDATA Project has a loan library with more than 2,500 AT items available for a 30-day loan to allow people to try out devices before purchasing them.

Visit www.eastersealstech.com for more information.

The Assistive Technology Industry Association (ATIA) has a searchable database of AT vendors that are members of the association.

Visit www.atia.org for a list of companies that provide AT products.

The Indiana Association of Area Agencies on Aging provides case management, information and referrals to various services for people who are aging.

Visit www.iaaaa.org for more information.

Indiana Centers for Independent Living promote a philosophy of independent living, consumer control, self-help, self-determination, equal access, and individual and system advocacy.

Visit www.iidc.indiana.edu/pages/Indiana-Centers-for-Independent-Living.

The Indiana Senior Games encourage the physical and mental health of Hoosier athletes through athletic competition each year.

Visit www.indianaseniorgames.com for more information.

Maxi Aids is a catalog of products for independent living.

Visit www.maxiaids.com for more information.

AARP is a membership organization leading positive social change and delivering value to people age 50 and over through information, advocacy and service.

Visit www.aarp.org for more information.

National Association of Home Builders certifies Aging-in-Place Specialists (CAPS) in the area of home modifications for those who decide to age in place.

Visit www.nahb.org/en/learn/designations/certified-aging-in-place-specialist for more information.

About INDATA

The INDATA Project at Easterseals Crossroads provides information and access to assistive technology, at no charge, to Hoosiers with disabilities.

These statewide services are derived through the Indiana Assistive Technology Act (INDATA) state/federal grant and include: device demonstrations, device loans, recycled computers, reutilized assistive technology equipment, alternative financing resources, and educational trainings and conferences.

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**Indiana's Leading Provider of
Assistive Technology Services
Since 1979**

The INDATA Project at Easterseals Crossroads

4740 Kingsway Drive
Indianapolis, IN 46205
317.466.2013 or 888.466.1314
eastersealstech.com

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