



Infants and Toddlers

Research has shown that early and appropriate implementation of Assistive Technology (AT) can facilitate the development of young children with special needs. In the home and community, AT methods can make it possible for a child to play with toys, interact with others, get around, and take part in bath time and dressing.

Specifically, AT can help facilitate skill development in the areas of receptive language, expressive language, communication, and speech; early literacy; social-interactive skills; play; daily living skills; hand/arm movement and other fine and gross motor movements; functional seating and positioning; and more. Including AT early can help young children with special needs do more for themselves and can reduce the need for special services when they enter school.

AT Devices and Implementation

When considering the use of AT, it is important to know that AT involves *AT devices* as well as individualized teaching or *implementation strategies*. An **AT device** refers to any item, piece of equipment, or product system, whether acquired commercially, modified, or customized, that is used to increase, maintain, or improve the functional capabilities of children with disabilities or delays. These devices range from *simple or low technology* (such as a rolled towel or pillow to improve a child's positioning, or a Velcro mitt to help a child grasp or hold a toy) to *complex or high technology* (such as computers, environmental control units, or dynamic-display augmentative communication devices).

In order to successfully include AT methods to develop a child's skills and increase participation in everyday activities, the following **AT implementation** components and features should be considered:

- *A collaborative team approach to inclusion of AT methods.* Assessment and intervention involving AT require information from several sources or team members, including the family.
 - For example, to help a child play with toys, the following information may be needed: the child's best way to sit, move his arms, and reach; the toys and other items he likes; the ways he communicates a desire for a favorite toy; and the ways that are easiest or preferred by a family to include the items/methods, etc.
- *Assessment for AT that is ongoing and deliberate, throughout intervention or service delivery.* Frequently, AT assessment occurs as part of service delivery in a child's everyday activities and routines. Referrals for AT assessment also emerge from delivery of services.
- *Intervention strategies that have been developed to serve children with special needs.* AT methods should be implemented using recommended instructional approaches, such as incidental teaching.
- *Functional results or outcomes as the measure of success of AT.* When reviewing a child's progress, the result of AT methods should determine if that method was successful (i.e., did the strategy assist in the child achieving his goal or objective?).
- *The child's interest in the AT device, adaptation, or support, and the family's or peer group's acceptance of it.* These can determine if the item will actually be used.

Using the appropriate implementation strategies, AT devices may be used by young children with or without disabilities and can be categorized in many ways. **The following is a list of some common, low technology, AT items and applications for young children:**

Positioning: It may be necessary to design positioning setups to help a child participate in different types of activities. Examples include supports or modifications to assist with effective sitting, crawling, or walking. AT may include pillows, corner chairs, standing tables, adaptations for chairs, or modifications for bathtubs.

Access - In order to take part in everyday activities or learn age-appropriate skills, a child may need to reach for, hold, or control an item. Examples include supports to help a child play with a toy, communicate a request or need, turn the pages in a storybook, hold a bottle or spoon. AT items may involve toys and other items that are modified or made accessible by switches, various modes of communication, book page separators, built-up spoons, or bottles modified for easier grasping.

Augmentative Communication: Children who are still learning to communicate or interact, or have not yet begun to, need facilitation of effective modes of communication. Modes involve the selection of an effective movement of a body part such as finger pointing, eye blinks, head or neck movements, gestures, and/or speech. AT items may include object or picture symbol setups or recorded speech devices. These are typically paired with facilitation of gestures and speech. It is important to note that the use of AT for communication facilitates the development of speech and language.

Assisted Listening Frequently children are expected to learn through listening. Children who have hearing impairments or auditory processing problems can be at a disadvantage. AT items that may assist include hearing aids, FM amplification systems, TV amplifiers, visual signaling and alerting systems, assistive listening devices, and more.

Vision Aids Children also learn and participate by seeing. Some examples of AT for vision enhancement include high contrast materials, magnifiers, audio books, light boxes, and tactile enhancement.

Mobility Aids – For young children still learning to move about, crawl, or walk, AT items may include: scooters, standing aids, walking supports, walkers, adapted tricycles, etc.

Play and Recreation: Children of all ages learn through play and develop skills they need to function in later years. AT items include outdoor playground equipment such as modified swings, slides, teeter totters, merry-go-rounds, and jungle gyms; and toys that are modified or made switch-accessible such as adapted puzzles, balls, and bubble blowers.

Self Care: Young children learn to take part and become increasingly independent in daily living activities such as eating, dressing, and toileting. AT devices that may assist with self care include such items as adapted utensils, specially adapted toilet seats, and aids for tooth brushing, washing, dressing, and grooming.

Computer-based Activities: Computer peripherals and software have been developed to allow effective access to software programs that facilitate such developmental skills as language, communication, and early literacy.

AT assessment and intervention are conducted by qualified and trained personnel according to federal mandates as well as each state's practice-related laws and agency procedures. When assessed and used effectively, AT devices and implementation strategies can help improve a child's development and can be used as part of functional assessments of a child's skills. AT can also promote a child's self-assurance and self-sufficiency, and can make everyday activities more successful and enjoyable for everyone involved.

Funding Sources

Many private insurance policies will pay for AT devices and services if they are deemed medically necessary and prescribed by the child's physician. Medicaid is a jointly funded Federal-State medical insurance program for individuals and families with low incomes and resources. Medically necessary AT services are covered under federal Medicaid law; and AT devices that are considered durable medical equipment are often covered under a state's Medicaid regulations.

Children who meet state eligibility criteria for early intervention services under IDEA Part C (BabyNet in South Carolina) by diagnosis or developmental delay will receive AT devices and services if the Individualized Family Service Program (IFSP) team decides that the items and services are needed to meet the child's unique needs and if they are determined to be reimbursable. Federal regulations consider Part C systems as payers of last resort.

States may have additional funding sources available from other programs and organizations, such as the Early and Periodic Screening, Diagnosis and Treatment (EPSDT affiliated with Medicaid); Children's Rehabilitative Services (CRS at the SC Department of Health and Environmental Control); and Sertoma, etc.

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Upon request, SCATP or TECS can provide the information in this fact sheet in alternative formats.