A GUIDE FOR PARENTS OF INFANTS AND TODDLERS

ASSISTIVE TECHNOLOGY

Beginning early in life, technology is making it possible for children with disabilities to do more for themselves. Assistive technology (AT) is redefining what is possible for young children with a wide range of cognitive and physical disabilities by bridging obstacles that can hinder or delay learning and promoting independence and self-confidence. A child who cannot use her hands can operate a computer with a switch and on-screen keyboard. A child with speech problems can use a portable communication device that "speaks," or a simple, homemade picture book. A child who is unable to get in and out of the bathtub can be safely and easily lifted using a mechanical device, or sit more independently in the bathtub in a laundry basket. These are just a few examples of the wide variety of equipment and modifications using common household materials that are available today.

What is Assistive Technology?

Assistive technology is a broad term that includes both AT devices and AT services. AT devices can range from simple, low-tech aids like straws and Velcro to sophisticated machines like customized computers and motorized wheelchairs. AT services are any service that directly assists in the selection, acquisition, or use of an assistive technology device for a child with a disability.

Assistive technology devices are generally classified into the following categories:

Vision. Tools for enhancing vision and interpretation of visual information include glasses, magnifying devices, enlarged pictures, light boxes with transparent overlays, use of tactile and auditory books and materials, enlarge text, high contrast materials, speech synthesizers, audio recordings, and thermoform graphics (precursor to Braille).

Hearing. Assistive devices to help with hearing and auditory processing include, hearing aids, vibrating toys, personal FM units, sound field FM systems, alert systems (to notify when someone is at the door, on the phone, smoke alarm is going off), text phones (TTYs), Alaska Relay system for phone calls, or closed caption TV and sign language.

Self Care. Tools which help children eat, drink, dress, bathe, or interact with family members and become more independent such as modified eating utensils, specialized bottles and nipples, toilet seats, adapted bath seats, and aids for personal hygiene.

Positioning. Supports to maintain body or joint alignment for stability and comfort. This can include using common household items, like a rolled up towel or pillow, or padding, structured chairs, straps, supports, restraints, side lying frames, walkers, crawling assists, floor sitters, chair inserts, wheelchairs, straps, trays, standing aids, and high chairs.

Mobility. Mobility devices which promote independent or assisted movement include orthotics, braces, self-propelled walkers,

specialized strollers and car seats, manual or powered wheelchairs, and powered recreational scooters.

Augmentative and Alternative Communication. Young children who are nonverbal or whose speech is difficult to understand can use boards with symbol systems (or photos) single or multiple message devices (with switches), electronic devices with synthesized or digitized speech and communication enhancement software.

Early Reading, Writing and Math or Emerging Literacy. Aids or devices which promote the development of reading, writing and early math skills include tools that allow a child to hold a book, turn pages, grasp a crayon, draw lines, string beads, and stack blocks, such as tools like page flippers, book tape, and devices to hold books.

Computer Access. Computer technology can help very young children acquire communication, language and social interaction skills and are best used when the parent or caregiver is working alongside the child. There are many computer programs designed for different developmental ages that use touch screens, touch monitors, and switches along with the specialized software.

Play. Many toys ensure that children with special needs have a full range of sensory inputs, develop their play skills and give them more control over their environment, like switch operated toys, visual toys, adapted puzzles (e.g. handles on puzzle pieces); adapted paint brushes or crayons, a head wand or stick for painting, game software, adapted go-carts and scooter boards.

Environmental Controls. Environmental controls and modifications, such as remote control switches and modified adapted on/off switches allow children to independently control toys or even turn lights on and off, open doors, and operate most anything in the home. Environmental modifications can include installing railings to help a vision-impaired child or changing the type or color of lighting to adapt to the sensory needs of a child with autism.

Very young children who have disabilities that limit their ability to interact with the environment by crawling, touching, seeing, communicating or hearing can benefit from technology that improves their interactions.

How Can EI/ILP Help?

Alaska EI/ILP Services can help families who qualify for assistive technology through:

- Assessments of whether or not a child is eligible for assistive technology
- Creating a comprehensive, family-based plan for the best type and use of assistive technology for a specific child's needs
- Modifying treatment/implementation plan as the child's assistive technology needs change
- Finding and applying for public or private funding
- Assisting with assessment of new assistive technology needs as the child transitions to other services at age 3

For More Information

Alaska Early Intervention/Infant Learning Program .... earlyintervention.alaska.gov (877) HSS-FMLY. (907) 269-8442. TT Relay (800) 770-TYPE

Assistive Technology of Alaska/AK Trading Post .... www.atlaak.org (800) 723-2852(ATLA). (907) 563-2599. TTY (907) 561-2592

Alliance for Technology Access Resource Centers .... www.ataccess.org (415) 455-4575. TTY (415) 455-0491