



# TECSNews

For the Allied eHealth Resource Network

April 2007

**Special points of interest:**

- Assistive technology with infants/toddlers & families
- Services for children with autism
- Provider Survey
- Information for providers—workshops & BabyNet Provider Relations update

## Assistive Technology (AT) for Infants & Toddlers— Frequently asked questions by families & other team members

1. **What is AT?** AT can be thought of as any item that supports a child’s ability to develop skills or participate actively in his or her home, childcare program, school, or other community settings. It is a broad term that includes items ranging from something as “low tech” as a foam wedge for positioning to something as “high tech” as a power wheelchair for independent mobility. Other examples of AT for young children include items such as switch-operated toys, picture or object displays, head pointers, specialized drinking cups, adapted spoons, augmentative and alternative communication (AAC) device, computers, crutches, and more. *From the National Early Childhood TA Center (<http://www.nectac.org/topics/atech/overview.asp>)*

2. **Will AT keep my child from developing skills such as speech?** No. The introduction of augmentative-alternative communication (AAC) strategies correlate with the improvement of natural speech— even in situations in which no speech therapy has been given. Numerous studies have found that the introduction of AAC frequently has a positive affect on speech, including developing speech faster. AAC in which speech is utilized by the adult alongside AAC is likely to assist in speech and language comprehension and production. Also, it is important to know that AT should be considered as only part of the service plan; i.e., other methods and strategies should be used as well (Beukelman & Mirenda 2005). *From YAACK (<http://aac.unl.edu/yaack>) & The Alliance (Technical Assistance Alliance for Parent Centers, [www.taalliance.org](http://www.taalliance.org))*

3. **Do you have to be “ready” in order to successfully use AT?** No. Children do not need to be “ready” for AT. Get started with AT for activities your child likes. The child’s

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## About this Issue

This is the 4th issue of a quarterly newsletter for allied health providers for children 0-3 and their families! This issue spotlights *Assistive Technology for infants and toddlers*. It also includes information for families about AT, practical ideas for including low tech AT with infants/toddlers, AT and IFSP team involvement, IDEA requirements for AT devices and services, methods for using AT data in outcomes reporting, and more. *We have also included a special review of autism intervention with young children by an autism specialist. Finally, please link to <http://CTLSilhouette.wsu.edu/surveys/ZS64847> to provide feedback to help guide future newsletters & other products for you!*

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## Frequently-asked questions by parents and other team members, *CONTINUED* from page 1

abilities and needs should also be considered in the selection of AT items. Your infant/child has probably been using a form of AT since shortly after birth, but adults may not have recognized it. Any modification used to help a child accomplish a task or participate in an activity is AT. Examples: Plastic links that prevent a toy from falling off a highchair tray, keeping a toy within reach of a young child; Velcro that holds a bowl full of Cheerios or a toy on the table, so it does not get knocked off. *From TOTS-n-TECH program ([http://www.asu.edu/clas/tnt/home\\_files/early.html](http://www.asu.edu/clas/tnt/home_files/early.html))*

**4. Isn't AT a crutch; won't my child become too dependent on it and not learn to use the skills he has or could develop?** No. Studies show that AT helps children carryout tasks and does not prevent them from achieving skills. Instead of waiting for skills to develop, AT provides another means for them to learn and grow. In fact, the use of AT enhances function and increases skills and opportunities. Research shows that children may not need further assistance later in life if they're provided with AT when they're young (Linda Robinson, [http://www.fctd.info/resources/newsletters/upload/FCTD\\_March07\\_Issue60.pdf](http://www.fctd.info/resources/newsletters/upload/FCTD_March07_Issue60.pdf)). *From Parents, Let's Unite for Kids program (<http://www.pluk.org>), the Family Center on Technology and Disability ([www.fctd.info](http://www.fctd.info)), and TOTS-n-TECH program ([http://www.asu.edu/clas/tnt/home\\_files/early.html](http://www.asu.edu/clas/tnt/home_files/early.html))*

**5. Won't AT make my child stand out or look different?** This does not have to be an issue. AT is not just for children with disabilities; the same items modified for a child with disabilities can be used with all children. Examples: A puzzle modified with knobs for a child with grasping difficulties can still be used with a child without disabilities. Voice output devices used with a child with limited language can be used as a prop during activities with children with adequate speech and language. This is called "universal design." Many items are being manufactured with "universal design" for use by children with and without disabilities; with these items, AT adaptations are not needed (Linda Robinson, [http://www.fctd.info/resources/newsletters/upload/FCTD\\_March07\\_Issue60.pdf](http://www.fctd.info/resources/newsletters/upload/FCTD_March07_Issue60.pdf)). See ToysRUs catalogues, for example. Equipment that appears intimidating at first is usually more accepted by families and peers when it helps a child participate and learn. *From the Family Center on Technology and Disability ([www.fctd.info](http://www.fctd.info)) and TOTS-n-TECH program ([http://www.asu.edu/clas/tnt/home\\_files/early.html](http://www.asu.edu/clas/tnt/home_files/early.html)).*



**6. Isn't AT too expensive for family budgets?** No. All children who are eligible to receive early intervention services are also eligible to receive AT at no cost to the family if it is included on the IFSP. IDEA Part C is the payer of last resort, and all other possible sources of funding are used first. Other sources might include private medical insurance, Medicaid, and organizations like Ser-toma. It is helpful to know that states have AT loan programs (such as the SC Assistive Technology Project in SC, <http://www.sc.edu/scatp/>) where AT can be borrowed for trial use and consultations are provided. *From the National Early Childhood TA Center (<http://www.nectac.org/topics/atech/overview.asp>)*

**7. Won't it take too much time for my busy family to include AT? How do we begin to use AT?** No it does not have to take extra time to include AT. For example, you could begin by 1) picking an activity that your child and family already do, and begin to use AT to enhance it. E.g., during meal time, there are communication opportunities for choice boards, voice output setups to communicate (messages like "I want a drink," "yuk," or "More please"), rubber mat or Velcro to keep the plate from moving while a child learns to scoop, weighted spoon to help a child more accurately control the spoon, etc., depending on the child's needs, or 2) picking an activity that you want your child to do; then look for naturally-occurring opportunities in your daily lives to use AT for that new activity. E.g., You would like your child to have control and choices in his surroundings. Provide him with toys that he can operate independently, through a switch or modification, to play music, light up or pop up, make a car go, etc. Think about times during the day (bath, play, driving in the car) that might work for you. *From TOTS-n-TECH program ([http://www.asu.edu/clas/tnt/home\\_files/early.html](http://www.asu.edu/clas/tnt/home_files/early.html)).*



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## Frequently-asked questions by parents and other team members CONTINUED from page 2

8. **Who selects the AT and teaches me and my child to use it?** AT evaluation, selection, training and maintenance should be carried out by qualified personnel (IDEA Part C, CFR 303.520, 303.22), with active participation on the part of the family. Although training and ongoing assessment is needed by family and other team members, families can try simple adaptations in the strategies or materials used to help the child. Providers can ensure that AT is being used with optimum effectiveness by the child and family; this can be accomplished with home programs that allow providers to continuously review and modify a child's service plan. For example, as a family helps a child explore and hold a book, they might have the child hold onto the adult's hand as the adult turns the page, or each page might be separated with foam adhesive to help him turn the pages more independently. Families, educators, and therapists need training on the various AT solutions available, and potential needs that might arise. There are resources available for families such as the TAM Technology Fan for young children distributed by Council on Exceptional Children's (CEC) TAM organization (<http://www.tamcec.org/>), which lists simple ideas that can be used during a child's natural routines throughout the day (Linda Robinson, [http://www.fctd.info/resources/newsletters/upload/FCTD\\_March07\\_Issue60.pdf](http://www.fctd.info/resources/newsletters/upload/FCTD_March07_Issue60.pdf)). From the National Early Childhood TA Center (<http://www.nectac.org/topics/atech/overview.asp>), the Family Center on Technology and Disability ([www.fctd.info](http://www.fctd.info))

9. **When is using AT appropriate?** A good example is in the area of speech or language development. When a child's speech or language is not likely to develop normally, he may be a candidate for AT for communication (AAC). Even when it is unclear whether or not a child will eventually develop normal speech, and this is frequently the case, the child may still benefit from AAC strategies. All children use AAC strategies as they develop speech (Beukelman 2005); such as the child who cries, rocks his crib, and reaches out toward his mother to call her and request being picked up. In children with delays in speech and language who may eventually develop normal speech or language, AAC may still be recommended. Applying this information to other areas, if a child is not able to take part in activities as same-aged peers, then AT should be considered as one of the methods to meet IFSP goals. Specific evaluations by qualified personnel (IDEA Part C, CFR303.520, 303.22) determine AT possibilities to "increase, maintain, or improve functional capabilities" of children with special needs (IDEA). Family and child preferences and providers' perspective (Linda Robinson, [http://www.fctd.info/resources/newsletters/upload/FCTD\\_March07\\_Issue60.pdf](http://www.fctd.info/resources/newsletters/upload/FCTD_March07_Issue60.pdf)) affect the assessment and selection as well. From YAACK (<http://aac.unl.edu/yaack>), IDEA, The Alliance ([www.taalliance.org](http://www.taalliance.org)) and Family Center on Technology and Disability ([www.fctd.info](http://www.fctd.info)).

More helpful AT links  
and references on Page 5

**Service notes should document assistive technology strategies and items used to help a child take part in activities and develop skills. Family participation should also be reflected.**

*Let us know*

Link to

<http://CTLSilhouette.wsu.edu/surveys/ZS64847>

to provide feedback on topics for future newsletters & other products!

## A Quick Fact Sheet on Assistive Technology for Infants and Toddlers

IDEA Part C requires that assistive technology (AT) methods or services be considered by each child's IFSP team to meet IFSP outcomes (CFR 303.12; Stremel 2005). AT involves the devices as well as the implementation strategies or services.

**AT devices** are used to increase, maintain, or improve the functional capabilities of children with disabilities or delays.

Devices range from simple or *low technology* (such as a rolled towel or pillow to improve a child's positioning, or 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 systems).

ANY modification is considered AT—take credit for what you're doing in service notes!

To implement AT strategies, you should have:

- an AT assessment, which can be conducted when the provider receives the referral from the IFSP team or throughout service delivery. Also, referrals for AT assessment can emerge from delivery of services. Criterion-based assessments and predictive assessments (feature matching) are frequently included in AT evaluations. Beukelman and Mirenda 2005 state that it is important not to put undue emphasis on the results of norm-referenced assessment tools for AT applications such as for communication, especially when observation and other ecological assessment provide meaningful information.
- a collaborative team approach to selection and use of AT methods, since assessment and intervention involving AT require information from several sources. Examples:
  - To help a child learn to use an adapted spoon to eat, providers may need to know the child's best way to sit, move arms and hands, and reach; the spoons and foods he likes best; the ways he communicates his choices; the ways that are easiest or preferred by a family to include the items/methods, etc.
  - To select augmentative/alternative communication strategies, it is helpful to know information about the child's communication needs and preferences throughout the day with everyone, his motor abilities for access, seating and positioning needs, environmental characteristics of the home or other places where the strategy will be used, the family's needs and preferences, etc. (Beukelman and Mirenda 2005).
- intervention strategies that have been developed to serve children with special needs, such as naturalistic behavioral approaches.
- functional results or outcomes as the measure of success of AT, such as determining if the AT strategy resulted in the child achieving the IFSP goal or objective. AT can be used to meet a variety of goals and objectives. For example, AT can be designed to facilitate play patterns and skills, such as adapting "regular" toys for children with motoric or communication delays or disorders, adapting story books and adult-reading by modifying text (e.g., to include shorter or pictured content), including objects or pictures to cue expressive choice-making, etc.
- the child's and family's interest and acceptance of the AT device and strategy, since these can determine if the item will actually be used.

Important for BabyNet providers since providers assess after the initial IFSP is written!

For a more in-depth downloadable fact sheet developed jointly by the SC Assistive Technology Project and TECS Allied eHealth Resource Network, link to <http://usem.med.sc.edu/tecs/otherlinks.htm>, Allied eHealth Resource Network.



## Review and Use— AT links and references you can review today & use tomorrow!

- <http://www.sc.edu/scatp/>— South Carolina Assistive Technology Project, has AT loan library, sponsors numerous AT work shops, disseminates extensive information related to AT items and services, and more
- <http://www.asu.edu/clas/tnt/>— Tots 'nTech program; has extensive information, resources, ideas/activities, and links related to using AT to enhance the development of infants/toddlers; AT information targets early intervention providers.
- [www.closingthegap.com](http://www.closingthegap.com)— Focuses on various types of technology for people with special needs, describes the latest products, and includes other information on implementation of AT with various populations
- [www.ablenetinc.com](http://www.ablenetinc.com)— sells assistive technology products for young children and older, and highlights new products; includes a month-by-month calendar of ideas for educators and parents.
- [www.taalliance.org](http://www.taalliance.org)— *The Alliance—Technical Assistance Alliance for Parent Centers*, site contains numerous resources related to helping individuals and young children with special needs, for parents and professionals.
- <http://www.pluk.org>— nonprofit org. that publishes many resources for parents of children with disabilities & chronic illnesses.
- [www.neatmarketplace.org](http://www.neatmarketplace.org)— The New England Assistive Technology Marketplace in Hartford, CT website. It includes information about purchasing new AT equipment, used AT equipment at discounted prices, and many other AT resources.
- [www.pacer.org](http://www.pacer.org)— The Parent Advocacy Coalition for Educational Rights website. Click on the Early Childhood box and go to Project Kite – 'Kids Included through Technology' for AT information.
- [www.birth23.org](http://www.birth23.org)— BIRTH through 5 NEWS SPRING 2004, VOL. 5 NO. 3, newsletter from various authors (Pip Campbell, Ann Leffert) in the field of early intervention and assistive technology, Cathy Malley, Editor.
- <http://letsplay.buffalo.edu/>— Let's Play Projects, University at Buffalo, Center for Assistive Technology, extensive information and examples for professionals and families about various types of AT, strategies for using AT in everyday activities, helpful AT links and resources, pertinent legislation, IDEA requirements, Let's Play! Project with A Professional's Guide to: Assisting Families in Creating Play Environments for Children with Disabilities (Mistrett, Lane, Goetz 1995-2000).
- <http://www.playingforkeeps.org/>— contains numerous resources to help families and professionals facilitate play.
- [http://www.fisher-price.com/US/special\\_needs/](http://www.fisher-price.com/US/special_needs/)— Fisher-Price site; contains many resources/ideas for adapting play time & toys
- [www.zerotothree.org](http://www.zerotothree.org)— extensive information related to young children, with helpful links, resources, articles, guides, and more.
- <http://tactics.fsu.edu/>— Therapists as Collaborative Team Members for Infants/Toddler Community Services, Florida State University; this website has extensive information on implementing services for infants and toddlers, including training modules and archived newsletters, related to IDEA Part C services for therapists.
- [www.wati.org](http://www.wati.org)— Wisconsin Assistive Technology Initiative has WATI assessment forms, updates, lending library, information, best practice tips, and more
- [www.trace.wisc.edu](http://www.trace.wisc.edu)— links to adaptive freeware and shareware for computer access; has AT-related research information.
- [www.tamcec.org](http://www.tamcec.org)— the website of the Technology and Media Division of the Council for Exceptional Children; contains numerous AT resources and information, *Journal of Special Education Technology*, Free with TAM Membership (a division of CEC); jset.unlv.edu
- [www.idonline.com](http://www.idonline.com)— Section on AT. Go to LD In Depth and then Technology. Has helpful information on selection and use of AT with young learners
- [www.fctd.info](http://www.fctd.info)— Family Center on Technology and Disability; has extensive resource reviews, on-line discussions and work shops, monthly newsletters, fact information guides, user-friendly resource library and more.
- <http://www.nectac.org/topics/atech/atech.asp>— National Early Childhood Technical Assistance Center, has research-based information related to providing services to infants and toddlers, include numerous AT-related guides and resources
- <http://aac.unl.edu/yaack/>— *Augmentative and Alternative Communication— Connecting Young Kids*, YAACK, has numerous resources, links and other information related to AT for communication
- <http://www.cms-kids.com/esproviders/training/ESTraining.htm>— Florida's early intervention system with helpful information related to IDEA Part C services, including AT.
- <http://www.wiu.edu/users/ectiis/sample/wssamplelea.html>— the Early Childhood Technology Integrated Instructional System, grant-funded project for online workshops and information related to AT
- [www.cde.state.co.us/earlychildhoodconnections](http://www.cde.state.co.us/earlychildhoodconnections)— site contains helpful information related to IDEA Part C services, including AT for infants and toddlers
- <http://www.adaptedstories.com/info/what.cfm>, [www.creativecommunicating.com](http://www.creativecommunicating.com)— many ideas for adapted stories for young children, across daily activities, sponsored by Pati King-DeBaun.
- [www.Lburkhart.com](http://www.Lburkhart.com)— creative ideas for AT for young children, across domains.
- [www.Do2Learn.com](http://www.Do2Learn.com)— numerous free pictures for daily activities (AAC).
- [www.aacintervention.com](http://www.aacintervention.com)— many ideas for AT and AAC for children with special needs and their providers, sponsored by Caroline Musselwhite.
- [http://www.augcominc.com/articles/12\\_6.html](http://www.augcominc.com/articles/12_6.html)— AAC articles online
- Benkelman, D.R., and Miranda P. (eds) (2005). *Augmentative and Alternative Communication*. Paul H. Brookes Pub. Co., Inc. WVDHHR/BPH/OMCFH/BTT/S, West Virginia Birth to Three, Powerpoint on Assistive Technology, Training/AT0106.
- Stremel, K. (2005). In Sandall, S., Hemmeter, M.L., Smith, B.J., & McLean M.E. (1995). DEC Recommended Practices, A comprehensive Guide for Practical Application in Early Intervention/Early Childhood Special Education. Longmont, CO: Sopris West Education Services.

## Ideas to Share— Low Tech Ideas for Infants and Toddlers

From: the Assistive Technology Industry Association Meeting, Werner, M.B., Loesl, S., & Hoehnke, V. (2006), the Let's Play Projects (<http://letsplay.buffalo.edu/>), USDE Grant #H327A030059 ; WVDHHR/BPH/OMCFH/BTT/S, West Virginia Birth to Three, Powerpoint on Assistive Technology, Training/AT0106; Zero to Three ([www.zerotothree.org](http://www.zerotothree.org)); and Tots 'nTech Program (<http://www.asu.edu/clas/tnt/>), USDE GRANT#H327X010003.

**HINTS:** You can find low tech ideas at discount stores (like WalMart, Kmart, Big Lots, dollar stores, hardware stores), around the house, and work areas. These should be low cost and easy to use.

- ◆ look at objects in different ways, not just for what they were made
- ◆ be creative, use others' ideas and modify
- ◆ design and build your own, and
- ◆ use "How to" books

### Ideas to Share— for every day activities

Stabilize toys, or other objects such as plate/cup/utensil, so that they are within the child's reach or vision, and stay in one place. Use mug mats, shelf liner plastic, suction cups, double sided tape, etc.



Extend or build up toys, or other items such as toothbrush, crayolas, and eating utensils, so that they are easy to hold or manipulate. Thicken handles with sponge rollers or hardware store foam pipe insulator, use clay to wrap crayolas or paint



brushes (like a pencil grip); put knobs on puzzles; insert foam or other material in between book pages, and more.



Attach items to bring them closer to the child to make them easier to reach, grasp, or "work" less. Use links, snaps on fabric tape, elastic, Velcro straps, Magic shoelaces, and more.



Confine toys and other items to keep them from moving too far or falling, and to make them easier to see, reach, and control. Use swim "noodles," organizing boxes, box tops, planter bases, and trays. These may be helpful for children with physical or visual difficulties, as well as attention-related needs.



For more ideas and handouts for families, see **LET'S PLAY! PROJECTS** Funded by the Office of Special Education Programs ( OSEP ) University at Buffalo • Center for Assistive Technology Website: <http://letsplay.buffalo.edu/>, ( USDE Grant #H327A030059 ), and Tots ' n Tech website at <http://www.asu.edu/clas/tnt/> ( USDE Grant#H327X010003)

## More AT ideas and information

AT for communication, or augmentative alternative communication (AAC), can be designed using objects or pictures to meet a variety of needs— e.g., to help children communicate what they want to do next, understand what will happen or should happen next, express choices, help to tell or understand a story, and more. These ideas can also be thought of as prompts and props to help children communicate, understand, and learn, and they facilitate speech and language.

Here are just a few examples....

Reminders: As you include AT, educate families and consult other team members about related needs, such as the:

child's most comfortable position; "therapeutic" positions may also be included

other positions throughout the day, for other tasks

additional supports to help the child maintain positions, so that he spends energy on using the toy/item

ways the child will make choices (decisions) or comment during the task; consider:

- simple recordings on talking picture frames for messages like "it's my turn" or "yeah"
- items with prerecorded messages like the "Got you!" fly swatter to use during "I Know an Old Lady" story
- eye gaze to choose toys, and more!

Remember that some toys and other items come with features that help young children grasp, attend and more— such as toys that have built-up knobs, balls or other toys that are easy to grasp, toys with texture or vibrant color, toothbrushes with built-up handles, etc. This is called universal design.



Object choices, to request the next activity, set up to prevent grabbing items



Pictures choices when getting dressed, and for song later at daycare.



Pictures for key words in a story for child to use

P. King-DeBaun

Learning to Wait	
First	Then



Objects for key words in story for child to use

**Please send in your AT or other therapy ideas to share!!!!**

## Ideas for Adapting Books and Story Time— using a mix of simple low tech AT and other methods

### Did you know.....

- Children with disabilities who have speech/language problems often have problems with literacy activities (a language-based task).
- Most *young children become interested in books and print at a very early age*, through observation and interactions. Examples: when they hold and “play” with books, when adults read to them, when they see adults turning pages or using print, etc. These activities are sometimes omitted with children with disabilities.
- IFSP services related to early literacy are required in the IDEA Part C reauthorization.



### Books should be appealing and children highly involved. Here are some ideas...

Read the story aloud based on the child’s language abilities, such as: ask yes/no questions, use books with short simple sentences if the child understands these best, include picture symbols or other pictures with print, objects (props), etc. *Children with varying skills can take part in same story activities.*

Include books that allow active participation and communication, such as books with predictable or repeated lines (like “Brown Bear Brown Bear what do you see”), objects to manipulate such as lift-flaps or related object props. Have target words, comments, or repeatable lines programmed on a device (e.g., Hallmark cards with recordable messages, etc.).

Focus students’ attention on print. *Use or adapt books to have large bold letters, can add puffy paint to letters, few words per page (5 words or less are recommended), redundant print, print embedded in the picture to encourage attention to print.*

Read stories more than once! Read them at bedtime, during play, at the library, in the car....

Read stories with fill in the blanks (such as, I see a \_\_\_\_\_ looking at me).

Make or read stories based on the child’s interests or experiences (use souvenirs or pictures, put favorite songs and rhymes in book form). For example, together, make books using souvenirs from a trip or pictures from an activity; these can be used to talk about what you did.

Have ways for children to ask for and choose stories, comment, ask questions, direct, etc.

Limit use of adult-directed questions by adults, such as “what is this?”. Adult controls can make book time less appealing and less interactive.

Books can be mounted on heavy paper/cardboard or secured to carpeting to help children with fine motor problems manipulate the pages. Choose early books with simple, large pictures and bright colors, “chunky” books. Books with sturdy pages can be propped up in a crib and other places.

Pages can be separated in various ways in order to help students turn pages; separate with “fluffers” such as foam to make it easier to turn pages. Pull pages apart to enlarge them.

Make props for stories. These can be photos or real objects that can be used to talk about trips or activities or friends and family, matched to key concepts in the story, used to help tell or retell the stories, answer questions, etc.

Sequence the story on a voice output device.

Have a topic communication board for the story.

Books can be scanned into a computer, or downloaded, and “read” aloud.

Try storybook and reading/writing software if available.

Use stories that relate to the child’s everyday routines or future routines for transition work.



**Have fun with story books!!**

☺ **Simply make it fun and get children involved.**

☺ **There is no right or wrong way to involve young children.**

## Frequently Asked Questions about the Reauthorization of the Individuals with Disabilities Education Act (IDEA) & Assistive Technology Devices/Services, by Kristie Musick, M.Ed., Director, Team for Early Childhood Solutions

*(Adapted from information provided by the National Early Childhood Technical Assistance Center)*

- 1. What does IDEA 2004 say about assistive technology (AT)?** The IDEA of 2004 uses the following definitions:
- ◆ **assistive technology device** is defined as "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 the functional capabilities of a child with a disability. The term does not include a medical device that is surgically implanted, or the replacement of such device."
  - ◆ **assistive technology service** is defined by IDEA 2004 as "any service that directly assists a child with a disability in the selection, acquisition, or use of an assistive technology device." The term includes:
    - Evaluation of the needs of a child with a disability, including a functional evaluation of the child in his customary environment;
    - Purchasing, leasing, or otherwise providing for the acquisition of AT devices by children with disabilities;
    - Selecting, designing, fitting, customizing, adapting, applying, maintaining, repairing, or replacing AT devices;
    - Coordinating and using other therapies, interventions, or services with AT devices, such as those associated with existing education and rehabilitation plans and programs;
    - Training or technical assistance for a child with a disability or, if appropriate, that child's family; and
    - Training or technical assistance for professionals (including individuals providing education or rehabilitation services), employers, or other individuals who provide services to, employ, or are otherwise substantially involved in the major life functions of that child.

**\*\* More information about approved devices and services in the South Carolina BabyNet Early Intervention System can be found in the [BabyNet Policy and Procedure Manual, Appendix 5, Services Guide](#).**

**2. How is AT accessed and funded for infants and young children according to IDEA?** All children who are eligible to receive early intervention services are also eligible to receive AT at no cost to the family, if it is included as part of their Individualized Family Service Plan (IFSP) (34CFR§ 303.344(d)). The IDEA requires that assistive technology routinely be considered as part of the early intervention (34CFR§ 303.322) and/or preschool evaluation ([34CFR§ 300.324\(a\)\(2\)\(v\)](#)). *However, if this does not happen, an assistive technology evaluation can be requested at any time. Additionally, since assessment is considered an ongoing process, AT is always considered as one of the methods to include in service delivery.*

**3. What does IDEA say about the family's role in AT?** AT evaluation, selection, training and maintenance should be carried out by qualified professionals, with active participation on the part of the family. The IDEA requires that all services be family-centered and directly related to the family's priorities and concerns for their child. Family members are in a position to provide valuable information about the child's strengths, interests and daily routines, which is critical for determining what kinds of AT devices and services will best meet the child's and family's needs. Understanding and taking into account the values, resources, concerns and routines of the child's family helps to ensure a greater level of success when it comes to using assistive technology effectively in the child's everyday activities.

**\*\* For more information on the importance of family-centered practice and the use of assistive technology see the following:**

- ◆ [Diversity Issues and Assistive Technology - Minibibliography \(PDF: 82kb\)](#)
- ◆ [Family Goals Determine Ultimate Success of Assistive Technology](#)
- ◆ [Family-Centered Decision Making in Assistive Technology](#)

**4. How does the IDEA concept of natural environments relate to AT?** As part of the evaluation process, families and professionals need to decide the routines, activities, and places that AT devices and services will be provided to best meet the child's needs. The Early Intervention Program for Infants and Toddlers (Part C of IDEA) states that AT items and strategies must be provided in natural environments, to the maximum extent appropriate, for children from birth to age three (34CFR§ 303.12(b)) (and in the least restrictive environments, LRE, for older children). Natural environments might include, for example, the child's home, childcare program or other community settings in which children without disabilities participate.

**5. What happens with the AT item and teaching strategies when a child transitions to preschool programs?** As children in the early intervention system move into a preschool program at age three, AT concerns should be discussed at the transition planning conference (34CFR§ 303.148) and should be included on the child's IEP/IFSP. Specifically, issues regarding the ownership and/or portability of AT devices/materials from one setting to the next need to be addressed early on, in order to ensure that there is no interruption in the use of these items and strategies, if they are deemed necessary for the child to receive a free appropriate public education (FAPE) under Part B of IDEA. This is an especially important issue to consider if agencies other than the school system have purchased the assistive technology items under Part C.

**\*\* OSEP Letters of Clarification on AT—** Over the years the U.S. Department of Education's Office of Special Education Programs (OSEP) has issued a number of Policy Letters to clarify school districts' role in providing AT for students with disabilities. Excerpts from many of these policy letters are available at: <http://atto.buffalo.edu/registered/ATBasics/Foundation/Laws/OSEPLetters.pdf> (PDF: 100kb).

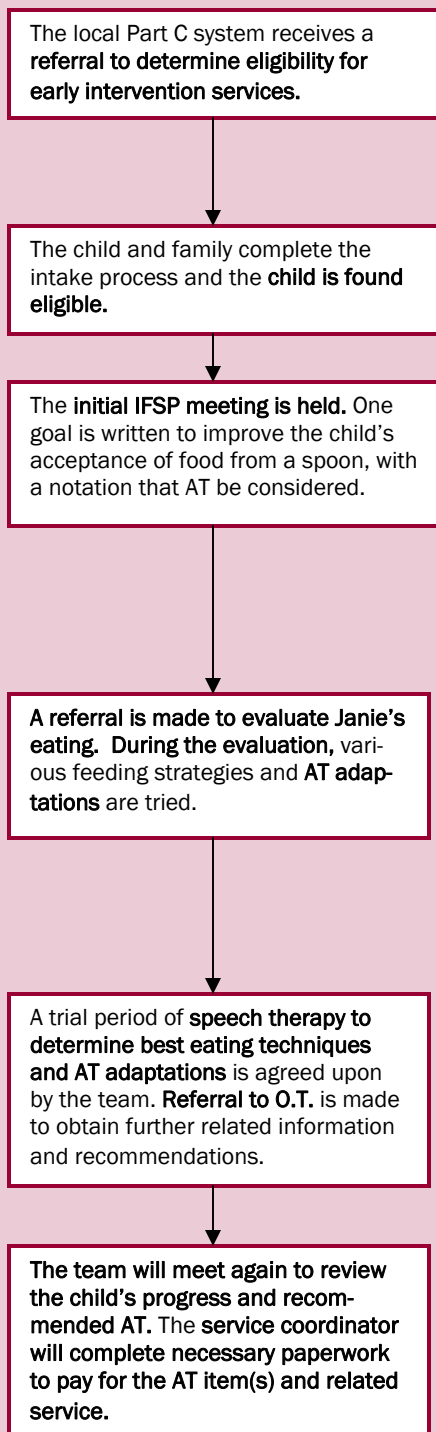
### References

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## Assistive Technology and the IFSP in South Carolina— an example of team members' role, by Stephanie Hicklin, B.S., TECS, Technical Assistance Specialist

The following is just one example of how a service coordinator and other team members can facilitate the integration of AT into a child's IFSP. For more information on South Carolina's AT policies and procedures, please visit the following link:

<http://www.scdhec.net/health/mch/cshcn/programs/babynet/policy.htm> —Click on "Appendix 5 Service Guide," pages 12-18.



Janie is 6 months old and is not accepting food from a spoon; she cries and becomes inconsolable. Her mother is getting very frustrated because she really wants Janie to eat cereal and baby food. At Janie's 6 month check-up, her mother explains her frustrations to the pediatrician, who reassures mom that she is not doing anything wrong. He explains that Janie may benefit from Early Intervention services and offers to make a referral to BabyNet, the local Part C system, to determine eligibility. Janie's mom is open to any help she can get.

Janie and her family complete the BabyNet intake. Janie is found eligible for services based on a 25% delay in adaptive skills and 25% delay in communication. At the IFSP team meeting, mom, dad, BabyNet intake coordinator, and the special instruction provider discuss Janie's and the family's resources, priorities, and concerns. Mom and dad agree that the most important thing to them at this time is for Janie to begin accepting food on a spoon. Now that it has been brought to their attention, they would also like to hear her babble more but want to focus on eating first. One IFSP goal was written to address taking and swallowing food presented on a spoon, and the IFSP team agree that a speech evaluation is needed. The special instructor also suggests that some type of adaptive spoon may help. The meeting concludes and the ongoing service coordinator follows-up on needs identified at the team meeting.

An evaluation is scheduled for Janie with a local speech-language therapist who works on feeding and swallowing. Mom and the new ongoing service coordinator attend. Mom participates in the evaluation by feeding Janie as she usually does, demonstrating how Janie eats best and the difficulties that occur, and by describing Janie's eating and related history. Throughout the evaluation, the therapist points out Janie's strengths and needs, including difficulties with tongue and lip movement to remove food from the spoon and manage it without losing food. Janie resists thicker foods with lumps, foods that are very warm, and some tastes more than others. The therapist and mom try various techniques, including different types of spoons with the usual bottle formula. The therapist demonstrates ways to facilitate Janie's eating skills, starting with liquid she likes, including ways to make mealtime fun; this includes techniques that indirectly encourage speech and language as well.

Mom, therapist, and service coordinator agree to recommend a trial period of intervention with the therapist to determine best eating techniques, eating utensils and related supports, etc.; the therapist recommends speech therapy twice a week to accomplish this. The therapist also notes that there are no indications of pharyngeal stage swallowing difficulties at this time; swallowing appears effective on the foods that Janie accepts more easily, and further swallowing evaluation is not indicated. A referral for an occupational therapy evaluation is also discussed to get more information about Janie's potential sensory needs, feeding adaptive equipment and posture for mealtime participation.

These recommendations are then brought back to Janie's team who discuss and agree with the suggestions. The service coordinator modifies the IFSP to document changes and completes necessary paperwork to pay for therapy and O.T. evaluation. Once mom and therapist decide on optimal AT items and related techniques for feeding, the team will meet again to discuss progress and recommendations, confirm purchase of AT item(s); at that time, the service coordinator will complete the necessary paperwork for BabyNet to pay for the AT and continued service. The therapist and family plan to develop a home program for Janie's family to use as they implement the AT and feeding techniques.

## Assistive Technology (AT) and Outcomes Reporting, by Lesly Wilson, PhD, OTR/L, Evaluation Research Specialist

The 2004 IDEA Part C reauthorization includes a child outcome indicator that requires states to report the percentage of infants and toddlers with Individualized Family Service Plans (IFSPs) and their progress in the early intervention system; South Carolina's reporting began in 2006. This section takes a look at how the inclusion of AT items and services can be used when collecting and reporting a child's progress in the three outcome areas-- positive social-emotional skills; acquisition and use of knowledge and skills; and use of appropriate behavior to meet needs.

Research shows that children benefit from early intervention and may not need further assistance later in life if *they're provided with AT when they are young* (Robinson, 2007). AT items and services can be used to promote development in targeted performance areas and/or to compensate for delayed or absent function (Case-Smith, 2005). Non-participation in daily activities and interactions can often result in missed learning experiences, which influence growth and development (Robinson, 2007). Such missed teachable moments can result in further delays in cognition, movement, communication, or social development, all of which can be enhanced through integration of AT in early intervention service delivery.

**Outcome 1: Social Emotional Skills**— All children begin to build a sense of self and relationships during their infant/toddler stages through development of social emotional skills in daily activities. Social emotional skills enable infants and toddlers to participate functionally in their social world and build relationships, such as interactions with caregivers, family members, peers, and others.

**AT can support infants/toddlers with disabilities to develop social emotional skills** by expanding their social world, which exposes them to additional learning, growth and development opportunities. Specifically, functional participation in age-appropriate routines, activities and development of social relationships is made possible through the use of AT, such as augmentative communication (AAC) devices, wheelchairs, and switches. The following are **some examples** of ways in which AT strategies can be integrated into natural routines of infants and toddlers:

- **AAC Devices**- can be designed to promote functional communication, such as to initiate and maintain social interactions with children and adults, select desired toy/playmate, or participate in story time, functional play and other age-appropriate activities.
- **Adaptive Strollers/Wheelchairs**- can promote functional mobility, which fosters skills and behaviors necessary to experience and participate in activities in a variety of settings and situations with children and adults. Adaptive Strollers/Wheelchairs can help children access routine learning opportunities at grocery stores, zoos, museums, and other community based locations.

**Outcome 2: Acquisition and Use of Knowledge**—All children begin to acquire and use knowledge during the infant /toddler stages. Children with disabilities frequently have barriers that limit them from experiencing opportunities necessary for acquiring knowledge and skills comparable to their same-aged peers. Early intervention services are challenged to help infants and toddlers with disabilities achieve this outcome in natural environments by capturing "teachable moments" that provide progressively more advanced skills during routine activities.

**AT can be used to support acquiring and using new knowledge and skills** by exposing infants and toddlers with disabilities to additional learning, growth and development opportunities. For example, AT can facilitate exploring the environment, play options, and new toys; and can foster creativity and learning new skills in play, and early skills for reading and mathematics. The following are **some examples** of ways that AT can be used in natural routines:

- **AAC Devices**- can facilitate communication skills, such as vocabulary, grammar and sentence length, and reasoning. AAC strategies can help children develop new skills for showing imagination in creative play and interactions with others.
- **Adapted Toys**- can promote functional gross or fine motor movement skills used during play. Adapted toys, such as switch-activated toys, can be used to develop numerous skills such as explore, manipulate objects, and interact with toys and people during play time.

**Outcome 3: Use of Appropriate Behavior to Meet Needs**— All children begin to become more capable of interacting within their environments during infant/toddler stages. Infants and toddlers with disabilities frequently are challenged to independently meet their needs for completing everyday routines and activities. They often require assistance from parents or use specialized technology to help them meet their needs for growth and development.

**AT can support infants and toddlers with disabilities in this area**, such as to meet their self-care needs, use objects as tools in appropriate ways, and seek help when necessary related to basic care or other needs during everyday activities. These new behaviors expose them to additional learning, growth and development opportunities within natural environments. The following are **some examples** of ways that AT can be integrated into natural routines for infants and toddlers:

- **Bath Supports**- can advance posture and upper extremity movement, which foster skills/behaviors to independently engage in daily routines. Bath Supports can help children develop grasping, attention span, dynamic posturing, and other skills necessary to meet needs of daily routines.
- **Feeding Equipment**- can promote grasping, upper extremity movement, and posturing, and can help children develop advanced object manipulation and coordination skills necessary to meet the needs of eating during mealtime.

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## Naturalistic and Family-Centered Intervention with Children with Autism— A Review of “Early Identification of and Intervention for Infants and Toddlers Who are at Risk for Autism Spectrum Disorder” (Woods and Wetherby 2003), by Janet Spearman, Autism Division, SCDDSN, 2006

*The purpose of Woods' and Wetherby's article is twofold. It provides a review of early indicators of Autism Spectrum Disorder (ASD) in very young children, and it also provides a review of evidence-based interventions for children with ASD. Janet Spearman was invited to review this article, and this excerpt focuses on the latter purpose— intervention for children with ASD.*

Woods and Wetherby report that at the request of the US Department of Education's Office of Special Education Programs (OSEP), the National Research Council (NRC) formed a Committee on Educational interventions for Children with Autism. This committee was tasked with reviewing research on children with ASD from birth to eight years old. The committee found that research is unavailable for infants and toddlers with ASD due to the delay in diagnosis and interventions. In this article, the authors summarize the findings and recommendations of the NRC committee on interventions for children over the age of three and attempt to apply them to infants and toddlers at risk for ASD.

The authors present a body of evidence supporting naturalistic behavioral approaches that include such strategies as: arranging the environment to naturally cue a child to initiate social interaction, using natural reinforcers by providing access to objects or activities that the child desires, providing natural cues and waiting briefly for the child to respond before giving a verbal prompt, and imitating a child's actions within the child's field of vision immediately following the child's actions.

In this article, various approaches and many of the leaders in the field of interventions with children with ASD are referenced. The authors summarize that no one approach is equally effective for all children. They support the use of data to determine each individual child's progress and to determine programmatic choices and changes. The NRC committee recommends specifically measuring the child's progress in initiating spontaneous communication (verbal or nonverbal) as well as generalization of skills across environments, people, and activities. Interventions in natural environments (which includes the utilization of naturalistic interventions) is presented as the most effective intervention approach for spontaneous communication and generalization skills. The child with ASD as well as his peers without ASD will require adequate supervision to ensure the experience is successful for each child.

Woods and Wetherby offer a model of service delivery for children with ASD that is based on NRC guidelines for evidence-based practice. This model of intervention is “family-centered” with parents and other caregivers playing a central role. Services are provided in natural environments and to all who interact with the child. The family's daily routine, including their schedule of activities, chores, interactions with and expectations for their child are all assessed.

Based on the child's and family's information, intervention strategies are determined and services are then embedded in the family's daily routine. Services are provided at home and in the community during activities and routines as they naturally occur for the family, and they are defined by the family's values and choices. Learning for the child occurs throughout the day and the materials used during intervention and specialized therapy are those that belong to the child and family and remain at the learning site (home, etc.) to be used during practice opportunities throughout the week. This allows families to establish and follow daily care giving and play routines that are convenient to them and can be repeated often with the child.

The familiarity and predictability offer the child many opportunities to produce an appropriate response or learn a desired behavior. Predictability is preferred by most children; however, it is crucial for a child with ASD in order to learn new skills and to decrease undesirable behaviors. Routines provide a framework for the child to expand his skills. Routines also clarify for the child the role and responsibility of each person, and this can help increase the child's communication and spontaneous interactions.

Considering the many responsibilities that families have, there is no need to schedule additional, isolated appointments with this model of service delivery. The intervention and follow-up is built into their daily schedule. Three very positive outcomes of this model of intervention are the enhancement in the caregivers' confidence and ability to interact with their child, the child's increased independence in family activities, and an overall improvement in the family's quality of life.

***There is no cookie cutter approach.***

Woods, Juliann J., & Wetherby A.M. (2003). Early Identification of and Intervention for Infants and Toddlers Who Are at Risk for Autism Spectrum Disorder, Language, Speech, and Hearing Services in Schools, 34, 180-193.

*Janet Spearman reviewed this article for the TECS allied health network in 2006. She is presently employed by SCDDSN, CARE Team.*

## More Information and Resources

### Provider Update, by Debra McCoy, BabyNet Provider Relations

As you may be aware, Robin Morris and I have been traveling around the state meeting with local BabyNet Teams and Contracted Providers to provide updates on the new eligibility determination process and contract requirements. It has been a pleasure meeting so many of you. We are almost finished with all the visits and have two more meetings to attend in the Upstate. After we complete these meetings (by July), we will review the recommendations that you submitted to us and develop resolutions for each one. When traveling the state, we have been asking the following questions to all Providers. If you have any feedback to the following questions, please feel free to contact me at [mccoydm@dhec.sc.gov](mailto:mccoydm@dhec.sc.gov) or Robin Morris at [morrish@dhec.sc.gov](mailto:morrisrh@dhec.sc.gov).

Have you seen any improvements in the payment process?  
 Where are some of the barriers to recruiting and retaining providers for BabyNet?  
 What type of training do you feel you need?

We would love to have your input so please contact us with any concerns or questions you may have. Thanks for all you do for the kids and families of South Carolina.

Sincerely,

Debra M. McCoy, PHD, LMSW

## Upcoming Workshops

**May and June 2007**, SC DDSN, Autism Division, <http://www.state.sc.us/ddsn/autism/AutismTrainingBrochure2006-07.pdf>, and <http://www.state.sc.us/ddsn/autism/AutismTrainingBrochure2007-08.pdf>. Numerous workshops offered for CE and other credit. For information call (803) 898-9609 or log onto the website above.

**July 31-August 2, 2007**, the Seventh National Early childhood Inclusion Institute— supporting natural Environments & Inclusion for Children Birth—Age Five, The William and Ida Friday Center for Continuing Education, Chapel Hill, NC. Contact Judi Shaver at (919) 962-7316 or [judi\\_shaver@unc.edu](mailto:judi_shaver@unc.edu). Visit <http://www.nectac.org/~meetings/InclusionMtg2007>. CE credit offered; registration fee: \$200.

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and give input on topics for future newsletters & other products!



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***TECS is contracted by the IDEA Part C lead agency (DHEC-BabyNet) to provide a comprehensive statewide system for personnel development and technical assistance.***

***If you need paper copies of the newsletter, have any questions about this newsletter, or would like to submit your ideas, please notify Leah Perry at 803-935-5227.***

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