

BABY BASICS: Touch, Read and Sign

By Marsha Peterson

MARSHA PETERSON and her son Chad live in the Twin Cities. Chad, who was born with Down syndrome and autism, learned American Sign Language shortly after his first birthday. Marsha published a book to help parents learn American Sign Language while reading stories about everyday events to their baby. *Come Sign with Us: The Adventures of Potts and Friends* was published in June 2009 and received a Mom's Choice Award for Educational Products in February 2010. For more information, visit www.TalkingWithBaby.com.

SUCCESSFUL EARLY INTERVENTION INCLUDES THESE THREE FACTORS:

1. **Starting the child as soon as a diagnosis is made**
2. **Involving the parent(s).**
3. **The intensity and structure of the program.**

Studies show the earlier the intervention, the more effective the outcome. Involving parents so they can implement a program at home will also help reduce the stress of raising a child who is gifted or has special needs. An early intervention program will help a child prepare for adulthood by working with motor skills, building language and socializations, cognitive abilities, and self-help skills.¹ Early learning and intervention for baby can be as simple as touching, reading and signing, and it begins before birth.

Human touch is the most basic of interactions, yet the most powerful when it comes

to nurturing, health and mental growth. Touch is something a baby needs in order to survive. In *The Fetal Senses: A Classical View*, David B. Chamberlain, Ph.D. states that the first sensitivity to touch a baby will experience happens just prior to eight weeks of gestation! By 12 weeks, the areas of the body that have the most sensory receptors are already formed and at 32 weeks, nearly every body part will respond to the stroke of a single hair. Even before we can physically touch a newborn, they have experienced what it is like to be touched.²

More remarkable is how listening and hearing are developing between 11 to 15 weeks of gestation and how it helps baby learn more about their world. Studies show that outside sounds reach the baby and teach patterns of speech, voice pitch, things about stress and rhythms, such as music. Studies show "reactive listening begins eight weeks before the ear is structurally complete at about 24 weeks."² The skin provides the means for most communication before birth because the framework is picking up on vibrations. Receptive hearing begins and operates well before birth, establishing the basis for learning. Touch and hearing have prepared baby for the next phase of life, birth.

A natural learning progression for the newborn baby is to continue with touch. Cuddling and nurturing touches will affect a baby well into adulthood and can help to influence coping skills. Studies show infants who have had lots of touching and stimulation become well-adjusted adults, who become a nurturing parent themselves.³

Where societies, such as China, abandon a newborn because of special needs, a deformity, an undesired sex or a one-child-per-family policy, babies fail to thrive. Human touch is limited and they lose a desire to eat. These children become developmentally delayed, often acting younger than they are and simply die from a lack of love, attention,

food and human touch.⁴ A brain's development is influenced by what life provides. Babies who receive warm touches and who are talked to will experience positive brain growth and will define who the baby becomes later in life.⁵

Infancy is when a learning program should begin. This is an important time to help baby learn and will last to age five, some say age eight. Humans are born with enough potential to learn everything there is to know because of the number of neurons in the brain. Neurons do not form after birth and those that are not used will simply go away.⁵ It is this critical time period for infants where President Obama fully supports early learning, which includes involving parents. This educational time period is to provide high quality language and literacy programs.⁶ Together they form the foundation for education and success.

The next step for baby's learning is for parents to read to them, preferably while cuddling. This continues the touch that is so important and builds on the receptive hearing baby is already accustomed to. "Children who have had books in their lives between birth and five will become the highest achievers with a lifelong love of learning."⁷ Benefits of reading aloud to a baby will build the skills used for learning. Those include promoting listening skills, increasing the number of words a baby will hear, develops attention span, help memory, helps baby learn about print and establishes a basis to learn meanings to words. Books also teach baby about communication, concepts (wet/dry, in/under), about numbers and colors. All your baby will want is a quiet room and to be near you. Reading time promotes bonding and calms baby, a perfect setting to be creative with imagination and to explore senses. Parents are calmer too. This is the time that baby will learn to love books. Re-reading the same books is helpful since babies learn from repetition. Singing

instead of reading will add a little something extra to the experience.⁸

A wonderful benefit of reading is that it exposes new words so the next natural learning progression is for baby to begin learning language. "The earlier any child is exposed to and begins to acquire language, the better that child's communication skills will become. Research suggests that the first six months are the most crucial to a child's development of language skills." Age is critical for language learning.⁹ Since baby continues to develop muscles and organs used for speech, sign language is a great bridge for expression and speaking.

Using sign language for infants has received a lot of notice over the past several years. The International Federation of Gynecology and Obstetrics reported that a record number of midwives are being trained in the UK. "The Press Association reported De Montfort University in Leicester had become the first institution to offer sign language lessons as part of its midwifery course."¹⁰ What a great way to get parents ready to educate their baby!

Children with special needs can benefit from learning sign language, especially since speaking could be difficult in adolescent and adult years. Although signing may not work for all children, it should be one of the choices offered for communication. It is spontaneous, does not require anything to carry and can create teachable moments, especially if the parent, caregiver or professional knows more signs than the child. What I like best is how signing gives children with special needs dignity, particularly when managing bad behaviors!

What should the considerations be to use American Sign Language with children with special needs? A few of the

guidelines outlined in *The Key to Success* are: Can the child be motivated by signs? Is there a visual loss that would affect the child seeing the signs? Does the child have fine motor skills required to make the signs? Do you feel that sign language would improve communication, cognitive and social skills? Does the student's environment use and support signing? What will the communication needs be? Will the child need more than just a few basic signs? ¹¹

How do you decide between Picture Exchange Communication System (PECS) and American Sign Language? Although the article *American Sign Language vs Picture Exchange Communication System in the Development of Verbal Language in Child with Autism: A Review* speaks to the diagnosis of autism, this study can apply to any child who is non-verbal. Most communication choices are made by parental and caregiver preference or by what the teacher is most familiar with. The two most used programs are American Sign Language and Picture Exchange Communication System (PECS), but the decision should be whatever the child prefers. For professionals who feel using sign language delays speech, research by the National Academy of Science in its report *Educating Children with Autism* states "There is no evidence to suggest that sign language interferes with the development of speech" (p. 58) and "There is evidence that sign language enhances the use of speech for some children." (p. 58)¹²

The National Institute on Deafness and Other Communication Disorders state experts estimate 25 percent of children with autism may never learn a verbal language and that sign language or a symbol system with pictures may be necessary.¹³ Is it practical for children with autism (or

other disability affecting communication) to learn sign language and be in the community? The review of PECS vs ASL explains that children with autism rarely go alone in the community, so the 'burden' of learning a second language – that being American Sign Language – goes to caregivers and service providers.¹¹

When comparing the two choices, children using American Sign Language were more vocal than students using PECS. Sign language is more than just motions with your hands and upper body; it is an exchange of eye-contact, verbal words and emotions and it encourages participation.¹¹ Pictures cannot take the place of human interaction or replace actual functional language.

John D. Bonvillian and Keith E. Nelson conducted a study in the 1970s and documented the sign language success with a 9-year-old boy named Ted, who was non-verbal and diagnosed with autism. It was common to treat children who were "mute" and autistic with an operant conditioning program to encourage communication, but it resulted in few successes with children moving from a trained utterance to any kind of language.¹⁴

The history for Ted began at age two with a hearing test that was done to rule out the emotional behaviors he had. The test was within normal range. Even though he seemed to understand words, he was unable to communicate. Ted's parents said he was not a cuddly baby nor was he sensitive to pain. His family and teacher began a journey to help him with his emotional disturbances



Chad demonstrating the sign for "helicopter".



Leah signing 'more' swing.

and social issues by trying several different programs.

When Ted was three, he was put in a “computer interaction language program” for the next 18 months. Along with the computer program, an individual language and group play therapy were tried. He was the most unresponsive child and his negative behavior continued. At age five, Ted tested at a little over a two year level with an IQ of 46. When he was six, he was re-evaluated because of his failure to respond, his lack of communication and continued behavior issues. He was put into a residential setting to learn personal care skills, where he made some progress. When Ted turned seven, he went into a day treatment and educational program that used operant conditioning, using foods and other tokens to encourage speech. At age nine, he continued to be unable to verbalize.

Ted’s teacher noted that his receptive skills had improved somewhat because he was pointing to objects and getting attention from others by pulling on them. Sign language was introduced based on two reasons. The teacher could mold Ted’s hands to make the signs and most of the signs look like what they are. (For instance the sign for ‘banana’ is to use an index finger and simulate “peeling the peel off” with the other hand – like peeling a banana.)

Over the next six months, Ted learned to sign objects and actions. Ted improved his functional language so he could tell someone when he needed to use the bathroom instead of having an accident; his tantrums lessened, he was calmer and he improved his social interactions. At the three month mark of signing intervention, Ted was pairing single signs together.

Only Ted’s teacher and the parent received ASL training, although everyone at the center was supportive by learning and communicating with sign language. Parental involvement ensured generalization of the language at home and helped Ted move forward with his progress.¹⁴

Recently, I was on a bus sitting next to a woman with Down syndrome. I noticed some movement from her hands and was delighted to see she was signing to me that it was raining outside. Teaching a communication skill enhances a life and helps, especially those who have disabilities, with an opportunity to participate in society. Kudos go to her parents, educators and service providers who have supported her choice of language. When I responded, she smiled. I smiled. We connected.

Start learning early. It’s as easy as touching, reading and signing.

ENDNOTES

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