## Dance for Babies

By Anne Green Gilbert, Director of Creative Dance Center

Movement is the key to learning! A baby's first communication is through movement. Our brains fully develop through movement and dance activities such as crawling, creeping, rolling, turning, walking, skipping, reaching, swinging and much more! The brain has a plan for development that involves specific and intensive motor activities to make full use of our complicated nervous system. The nervous system of each new human being must go through a series of developmental stages before the brain can operate at its full potential. The baby "programs" her motor/perceptual equipment, nerves and brain cells by using her whole body and all her senses.

This process, called "neurological organization" describes the evolution of the central nervous system between birth and 6-8 years. By twelve months many children are doing tasks which we recognize will lead to adult skills development, namely walking and talking. Already, by twelve months, the brain has learned 50% of everything it will ever know!

In the womb, neurogenesis (the birth of brain cells) takes place and the cells move to the areas of the brain where they are needed. With the first breath, oxygen fills the brain and starts the growth of dendrites and axons – the brain's "wires." The brain continues to grow, develop and create synaptic connections through fundamental movement patterns. What may appear as random arm and leg squiggling around a torso is called core-distal movement. The baby is reaching out to discover her new world. This will soon turn into a more organized pattern called head and tail movement. Around two months of age (if the baby is placed on her tummy soon after birth) she will begin to stretch her head up to see the world while developing important neck and shoulder strength (a must for sitting and writing).

Most babies will, by 2 1/2-7 months, begin to organize their upper and lower body movement (the lower half is stable so that the upper half can move and vice versa) and body side movement (right half is stabile so left can move and vice versa). This allows baby to travel away from and to a noise or object. This early belly crawling will evolve into more mobile crawling and the baby will develop horizontal eye tracking which will later contribute to reading. Lumbar and cervical curves become stabilized as does the rotation of the hips in their sockets. The baby is putting together a sensory and motor world that lays the foundation for the next stage of creeping on hand and knees. During this time the vestibular system, which helps to orient us in space and aid with balance, is also being developed through rolling, rocking, and swaying movements.

Sometime between 7 months and a year, the baby puts distance between herself and the floor by pushing up onto hands and knees. The curvy little baby legs begin to become aligned with hip sockets and feet in preparation for standing. Vertical eye tracking is part of the growth triggered by creeping on hands and knees. The convergence of vertical and horizontal eye tracking is a skill essential for reading and writing.

While these observable changes are taking place, countless other neurological tasks are being stimulated and organized through movement during this period of creeping. Detailed perception and focusing, body temperature and waking/sleeping cycles, suppression of newborn reflexes and the emergence of a more mature human being begin to occur.

If babies do not have the opportunity to roll, crawl, creep, rock, turn, stretch, clasp, focus, babble and do many more movements such as these, little gaps in their development may begin to appear in the years ahead. How do babies miss these instinctive activities? In the name of convenience, love and safety we keep babies off the floor for much of their first year. A baby who spends too much time in a car seat, jumper, walker, being held or lying on a blanket on her back will not move through the important fundamental patterns of the first twelve months of life.

The fear of Sudden Infant Death Syndrome has caused a widespread campaign to keep babies on their backs. However, there is research that shows that SIDS may not be caused by sleeping on stomachs but rather by neurologic injury incurred at birth. Whatever the cause, it does not mean that babies should live on their backs. They can sleep on their backs and play on their stomachs! When I was raising children 25 years ago, mothers were told to keep babies on their tummies to avoid choking if they spit-up! Now the trend has reversed and because of this we are seeing missing gaps in the normal growth and development of a number of children who have spent too much time "upside down" on their backs.

Today, babies spend an average of 600 hours a year in their car seats! This is a syndrome that I call "baby-in-a-bucket." Even when not riding in a car, I see babies sitting in plastic car seats in homes, in stores, and waiting at lessons for siblings. There is very little movement that a baby can do while sitting in a car seat and very little for them to look at on a 45 degree angle. While car seats are very important in saving lives they can hinder normal growth and development when used too often as a playpen or holding area.

Babies need to be on their tummies in order to go through their fundamental patterns which wire the brain and lay the foundation for reading, writing, socialization and healthy behavior. When a baby is prevented through sickness, social or environmental obstacles from moving through these patterns, she may later encounter problems in school with learning and behavior no matter how intelligent she may be. In other words, missed or disorganized developmental stages can create a barrier that makes learning difficult. The good news is that often taking children back through these missed stages and fundamental patterns can correct flaws in their perceptual processes and enhance learning.

How to provide an environment that encourages normal neurological organization from birth to twelve months:

- Let baby's arms and legs be free to move.
- Put baby on the tummy on the floor for exercise and play as soon as possible.
- Provide a smooth surface that baby can move across when she is ready (wood, linoleum, a piece of cardboard from a very large box). Kitchen floors are great and usually cleaner than rugs! Lying on blankets or quilts make it impossible for baby to travel.
- Let feet and hands be bare so that baby can use them for belly crawling – an important fundamental pattern. Socks and long sleeves are slippery and make it difficult for baby to crawl.
- Get down on your belly facing baby and coo and talk.
- Mimic baby's movements: stretch head up, crawl on belly, creep on hands and knees, roll over, sit up. Moving through the fundamental patterns is good for everyone's brains!
- Do not teach your child to walk. There is an old adage: the later you walk, the smarter you are. Crawling on your belly and creeping on hands and knees (in that order) are essential for creating a healthy person emotionally, physically, socially and intellectually. Sometime between 12 and 15 months is a fine time to start walking.
- If baby begins to pull up on furniture before crawling and creeping, remove some of the furniture so that there is a big space for baby to move on tummy and hands and knees.
- Nurse baby, hold baby, touch baby, massage baby, swing, sway, turn, dip and dive with baby. Sing to baby and dance with baby!

Letting your baby move naturally through the fundamental patterns during her first year is one of the essential ingredients for healthy brain development. Dancing with your baby provides more brain activity and growth and also brings joy and laughter to this wonderful relationship!

Below are a few simple dance activities:

Do simple stretching exercises with the baby moving arms and legs, right side and then left side and finally cross-lateral movements connecting diagonals (right arm to left leg, etc.). Sing or say rhymes for accompaniment. Get down on the floor with baby and encourage creeping and crawling as appropriate to development.

Explore ways of carrying, rocking, swaying, swinging and turning the baby. In how many different positions can the baby be held and on how many levels? Play waltz music.

Props: swing or pull baby in or on large pieces of material such as tablecloths or sheets; swing (hammock) baby side to side and bounce up and down in a large thick piece of lycra material; dance with brightly colored scarves around the baby, touching baby and playing peek-a-boo; try other sensory activities with different textures and materials.

Carry baby while doing different locomotor movements: walk, run, jump, hop, turn, tiptoe, slide, gallop, skip. All these movements have different rhythms. Dance with baby to a variety of world music or meters such as African, Salsa, Japanese, Indian or waltz, tango, polka, rock and roll.

Play instruments (bells, shakers, drums, rhythm sticks, pots and pans) in front, next to, above and behind and gently on baby. Encourage her to focus on the instrument and eventually hold and play the instrument herself. Play instruments to children's songs and world rhythms that have a strong beat.

End dance sessions with baby massage or just lie down on the floor and relax with the baby on your stomach, breathing slowly and rubbing baby with long gentle strokes.

**Resources:**

Green Gilbert, Anne. *Brain-Compatible Dance Educator*. Reston, VA: NDA/AAHPERD. 2006

Lamont, Bette. "Learning and Movement." *Pathways*: Creative Dance Center Newsletter. Seattle, WA. Spring 1996, pp. 4-5.

**Music Suggestions For Creative Dance**

*Music for Creative Dance: Contrast and Continuum Vol. I, II, II, IV* Eric Chappelle. Ravenna Ventures, Seattle. 206 528-7556 or info@ravennaventures.com