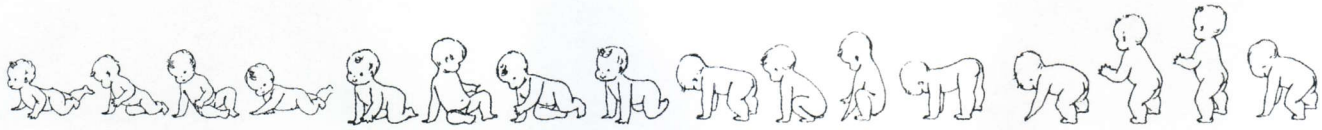
MAXIMIZING INFANT DEVELOPMENT

By Charles L. Blum, DC



"An infant always learns. The less we interfere with the natural process of learning, the more we can observe how much infants learn all the time." —Magda Gerber

The nervous system has aspects of plasticity. As the nervous system develops a balance between gross motor activities, neural patterning occurs. Each movement and transitional phase (body posturing between movements such as crawling or sitting) helps mold the nervous system in its development. The patterning that occurs is specific to each child's own development, and the transitional phases between each movement are often more important than the final outcome (for example, sitting or standing).

Education psychologist Carl Delacato's early developmental hypothesis suggested that "normal" children go through five stages of development, beginning with the lower spinal cord and medulla oblongata reflexes, which are present at birth to approximately 16 weeks. Next, homolateral function of the visual and auditory mechanisms develops during the pons level at 16 weeks to six months. Then, from six months to one year, the mid-brain develops, providing the cross-pattern mechanism and using both sides of the body together. This is an important area of development, which prepares the child to function in an upright position. Early cortical function develops in the age range of 1 to 5 years. During this stage, there is continued bilateral development, and walking begins. Finally, from the ages of 3 to 8, cortical hemispheric dominance develops, giving right- or left-handedness and continued neurologic organization.

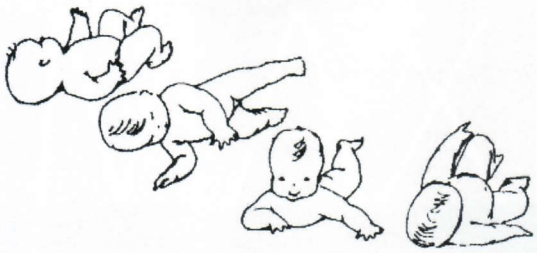
Dr. David Walther, a chiropractic writer and researcher who practiced applied kinesiology, maintained, "There is a tendency for adults to force a child to develop too rapidly. The speed of development through these early years is already a marvelous accomplishment. The reason for the parents' effort to speed the process even more is probably the desire to have a 'smart, accomplished' child. Ironically, forcing new activities for which the child is not neurologically prepared disturbs organization, and in many instances may actually cause the child to eventually be inefficiently integrated."

Magda Gerber, of Resources for Infant Educarers (RIE) in Los Angeles, conducted research along the same lines as the work of Delacato and Walther. Gerber began her studies with Dr. Emmi Pikler, pediatrician and professor at the National Methodological Institute for Infant Care and Education in Budapest, Hungary.

In *The RIE Manual*, Gerber wrote that, "Dr. Pikler is well-known in Europe for her original ideas on infant rearing. After receiving her medical degree in Vienna, she developed what was to become her life-long interest in the physiology in gross motor development. Her research focused on the differences in gross motor development of normal children under two different conditions: 1) when motor development is influenced by adult intervention (positioning, exercising, restricting) and 2) when motor development naturally occurs without adult intervention. Due to findings of her research Dr. Pikler became an advocate of 'non-interference' —letting the infant develop at his own rate. She suggested that by allowing the child freedom of movement, parents would develop respect for their baby's individual tempo and style in other areas of development as well."

Pikler emphasizes, "The Institute withholds 'teaching' in any form. Under 'teaching' we understand systematic practice of certain motor skills by holding or keeping the child in a certain position, whether by adult or by equipment, or in any way helping him to make movements that he is not yet able to execute by himself in his daily life. Spontaneous, self-initiated activities by the infant have an essential value for his physical and mental development in that the pleasure evolving from exploration and mastery is self-reinforcing. Subsequently, the infant becomes intrinsically motivated to learn." At RIE in Los Angeles, Magda Gerber stressed the importance of allowing the child to develop without interference. She believed that intervention creates a child less motivated to be inner directed, and can directly or indirectly affect the child's self esteem negatively.

In an account of 722 children raised at the National Methodological Institute for Infant Care and Education, investigators described the children's movements as well-coordinated, economical, and cautious. "The children, without exception, attained



the age-appropriate motor skills. They [maintain] a stable, high activity level during the whole period of learning new motor skills, and change their postures on average of at least once per minute." Gerber also found that a child restricted from moving freely is deprived of the long hours of exercising in transitional postures necessary before mastering the next developmental skill.

Parents often want their child to "progress" as quickly as possible with their neuromuscular and intellectual development. Family practitioners need to inform parents of the research that supports allowing children to move within the transitional stages between each posture. These transitional stages are of great importance to the child's neuromuscular development, as well as their psychological development. Each child has her own individual developmental timetable, and each step she takes along the way is the body's way of integrating itself into the world. Bypassing some of these steps may initially seem beneficial because it accelerates a child's development. However, this practice might need to be reconsidered.

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While "tummy time" is considered important for child development, what needs to be understood is whether quicker development of specific behaviors is in the child's best interest. RIE's philosophy is that each child has an individual developmental pattern. Transitional phases between each developmental milestone are as important as the milestone itself (such as rolling over, sitting, standing, or walking) and developing a child's inner-dependence reduces the need for external dependence that can occur as the child grows up. Consider the following guide for parental intervention for child development:

1. Give a child the greatest control over her body and environment. This involves placing the child in the prone or face-up position, since in this position children have the greatest access to their hands and legs as well as a full view of the world around them. From this position they develop good hand eye coordination and as well as the transitions needed to turn from back to stomach to begin the process of crawling.

Refrain from placing children in positions they cannot maintain on their own, including on their stomach before they can roll from their back by themselves, or sitting or standing until they can achieve these positions on their own.

This would also suggest that parents refrain from placing their child in car seats for long intervals, in "jolly jumpers," or in seated walkers. The process of development involves both muscular and neurological development of proper transitions. Getting your child to sit up or walk quickly is not necessarily in his best interest. Children develop at their own personal pace and parents shouldn't impose preconceived notions or compare one child to another.

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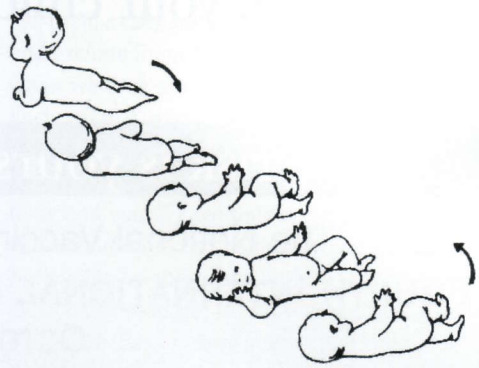
2. Help nurture a child's inner-dependence and internal strengths. Another important childhood skill, in addition to transitional developmental skills, is learning how to self-soothe. A child crying is an indication of many things. Sometimes it is a child expressing himself or relieving tension; in some instances it may even offer a therapeutic value. Parents need to discern when their child's crying is more upsetting to them than it is to the child.

Aside from the questionable nature of pacifier use, due to its adverse affect on dental development, parents commonly place a pacifier in the child's mouth to control crying. What RIE has found over many decades is that a child will place their hands in their mouth when they want something to suck. By not using a pacifier, children learn good hand-to-mouth development and can soothe themselves when needed. This also pertains to placing a child in a swing or imposing the parent's wish that the child would stop crying over the child's need to learn how to soothe himself.

Resources for Infant Educarers (RIE) offers publications and classes that new parents may find of great interest. New parents will find authorities everywhere telling them what to do for their children, yet often the best advice is to use common sense—allowing children to express their individual developmental patterns, and giving them the greatest control over their personal environment while they learn coping skills for self-soothing. These concepts are not about parental neglect, but instead involve being attentive to children in a manner that supports their individual growth and coping skills.



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