

The Art of Observation

by

Tzipporah Sklar, M.D.

Babies are universes unto themselves. From the very youngest age - even immediately after birth - they have the ability to respond to their surroundings and cope with their new environments in a multitude of ways. They can feel, move and make sounds. They demonstrate affect, cognition, behavior, spontaneous muscle activation, body alignment and even language. Because they are such complex beings from the very beginning, observing the activities of newborns provides doctors and parents with a great deal of important information.

All parents hope that their baby will come into the world adequately prepared to deal with all the challenges he or she will have to face. Unfortunately, there are some newborns who begin their young lives with different kinds of developmental challenges that require early intervention. Statistics have shown that an estimated 5% - 10% of infants are at risk for a wide range of developmental disabilities, ranging from motor or speech and language delays, feeding difficulties, or visual perceptual disorders to cerebral palsy or other neurological disorders. Even subtle developmental disabilities can impact significantly on a child's development and affect his or her inclusion in the home, at school, and in the community.

Developmental milestones are often used as a guideline to determine if an infant is on target in his or her neurological development. However, even if a baby achieves developmental milestones in the appropriate, timely fashion, this does not preclude later developmental difficulties. There may still be problems with the "quality" of the baby's response. Developmental testing in infancy and early childhood is often limited in its accuracy and predictive value. Tests also do not reflect the behavioral or physiological factors that impact on the baby's performance.

Early detection of problems in an infant's development is, therefore, complex. But, observation, or "intense informed scrutiny," when performed by a trained physician, is an excellent way of evaluating a newborn for developmental disorders. By using the art of observation, a physician can assess the maturity and integrity of a baby's nervous system and look for subtle signs of developmental deficits that might otherwise be missed.



.....
Dr. Sklar is Assistant Professor of Pediatrics and Neurology and Director of the Division of Developmental Pediatrics at SUNY Downstate Medical Center, where she also heads the Multidisciplinary Neurodevelopmental Clinic for High-Risk Infants. Dr. Sklar is available for pediatric evaluations at Ezra Medical Center (718)686-7600.

In order to assess a newborn's nervous system, a trained physician will observe the baby in six different states: quiet sleep, active sleep, drowsy sleep, quiet alert, fussy and crying. Although these states can be affected by a variety of physical conditions like temperament, hunger, thirst, illness, temperature, or medicine, the physician will still be able to gain an understanding of the baby's range of functioning.

A baby's ability to transition from a sleep to an awake state and to maintain a quiet alert state, or the extent of the baby's jitteriness or irritability, all give the physician clues as to the maturity of his or her nervous system. Watching how a baby coordinates his sucking, swallowing and breathing responses gives the physician a wealth of information about the baby's brainstem function, cranial nerves, and neuromotor/sensory integration.

To determine the quality of a newborn's neuromotor function, the physician will observe the baby in eight different positions: supine, side-lying, prone, pulling to sit, standing, suspended horizontally, and parachuting forward. Observing the baby in these positions will give the physician a great deal of insight into a baby's tone, balance, postural alignment, ability to bear and shift weight and move against gravity, ability to reach and grasp, and ability to do visual tracking.

Another very important aspect of evaluation by artful observation is conducting a "dialogue" with the newborn baby. The baby's ability to make eye contact, follow the physician's facial expressions, and respond to his or her parent's voice are all important signs of the baby's cognitive potential and future ability to communicate.

Only 2%-5% of premature babies weighing between 1000 and 1500 grams have major developmental disabilities. 50% of these babies have no disabilities at all. However, if a child has a neurodevelopmental disorder and it is left undetected, the child can develop patterns of movement that can gradually stiffen muscle control, limit his or her range of movement, and significantly restrict the variety

of his or her learning experiences. For example, infants with high or low oromotor tone can have problems with sucking, swallowing and breathing that may result in their failure to thrive. Early detection of these problems allows for intervention - correction of poor posture and body alignment and sensory motor integration. This intervention can help prevent the cycles of illness, hospitalization, and despair that frequently plague these children and their families.

When a disability is identified, early intervention is the key to overcoming obstacles and achieving a child's full potential. A baby's pediatrician and parents are partners in his or her healthy development. By mastering the art of observation and listening to a parent's concerns and experiences, a physician can play a pivotal role in detecting developmental abnormalities early on.

Parents can be active participants in this process by knowing their infant's baseline and developmental milestones and being aware of their infant's neurodevelopmental status from the very beginning. Parents, too, must be alert observers. They must trust their instincts and not hesitate to report any concerns they have regarding their child's development to their baby's physician. Together, the physician and the parents can determine the need for early interventions that will pave the way for their child's healthy development.



The vast majority of infants requiring early intervention do well. Infants do especially well when appropriate therapeutic interventions and behavioral

approaches are implemented consistently both in the home as well as in the therapeutic environment. While the rate of development for each child is determined by the child's individual diagnosis and genetic predisposition, the family's support, acceptance, encouragement, and advocacy make the greatest difference in the child's ability to achieve the best overall quality of life.