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Your Baby's Movements are Building Their Brain—Literally

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From the moment your baby enters the world, their tiny movements, those automatic kicks, stretches, and grips, aren't just adorable, they serve a larger purpose. They are critical neurological building blocks that lay the foundation for lifelong development. But did you know it starts even earlier than their birth day? It starts in the womb.

By the third week of pregnancy, your baby has already formed the basic shape and structure of their brain and spinal cord. Not only are these structures formed, but they're also performing important tasks for future brain development. Primitive reflexes are automatic, innate movements that babies develop in the womb to help with adaptation to the world.

These primitive reflexes aren't random reactions. They are precisely wired programs within the nervous system, helping to create the neural connections that will shape everything from reading and writing skills to emotional regulation and physical coordination. It's further evidence of the innate intelligence of the mother-baby connection.

Labor and birth are a baby's first major workout. The twists, turns, and movements they make during delivery are essential in activating their nervous system and building neural pathways. Baby must first descend into the pelvis and vaginal canal, tuck their head, rotate to align with the mother's pelvis, extend as their head is born, rotate again but in the other direction, then the rest of their body is born. These innately coordinated movements are called the cardinal movements of labor. While all of this is going on, the baby is activating their reflexes to aid in the process. During the moro reflex, you may notice when a baby is startled by a loud noise or sudden change in their position, they take a deep breath in, raise their arms quickly, and begin to cry in search of their mother. This reflex is essential for survival for the newborn, ensuring connection with caregivers and even preventing



SIDS. This reflex is activated in labor by the sensation of pressure of contractions and position changes in the womb. Another reflex, called the asymmetrical tonic neck reflex, plays an important role by helping baby rotate through the birth canal. This reflex (also called ATNR) helps children drive motor skills, eye tracking, reading, writing, and overall coordination. The rooting reflex, which is essential for showing hunger cues and latching at the breast, is activated in labor to help the baby rotate as they descend down the birth canal. The palmar grasp reflex (you know the one where the baby so sweetly holds your hand) actually helps them navigate the birth canal, and will help with fine motor and handwriting skills throughout their childhood. The spinal Galant reflex, which helps the baby crawl, develop and maintain posture, transmit sound to the ears while in the womb, and aids in bladder and bowel control, also helps with the descent during the pushing phase of labor.

So you can see how these movements are priming your baby's future development. I also see these as little signs of communication. They're signals from baby to mama communicating their perfect symbiosis, sharing their rhythm and ensuring their presence. It's a silent conversation, an unspoken secret language deepening their bond.

A smooth birth process helps ensure that these movements can activate their reflexes and their reflexes

are integrated properly, setting the stage for optimal brain development. However, if the birth process is difficult, whether due to prolonged labor, interventions, or positioning issues, it can interfere with these natural movements. In addition to that, the forces of birth can potentially lead to subluxations (misalignments in the spine) that affect the baby's ability to process and respond to their environment. This creates modified movement patterns and neurological input, which can alter the trajectory of their brain development.

This is where pediatric chiropractic care plays an essential role. These reflexes need to be fully activated at certain times, and in certain orders, then they need to integrate or disappear at certain times, and this process allows a child to access higher, more sophisticated cortical functions. By ensuring the nervous system is functioning optimally, chiropractic adjustments help babies integrate reflexes properly, supporting coordination and development, and improve nervous system communication. This impacts learning and sensory processing, enhancing movement patterns, making milestones like crawling and walking smoother. Pediatric chiropractic allows a greater sense of connection to oneself, which leads to more ease with learning, emotional regulation, and development.

For pregnant mothers, Webster perinatal chiropractic care is a game changer. This specific approach helps balance the pelvis and sacrum, reducing nervous system stress and easing the birth process for both mom and baby. A balanced pelvis means the baby may have more room to move and develop those essential in-utero reflexes.

A baby's nervous system is like an open highway for growth, learning, and connection. But subluxations create roadblocks, interfering with this natural process. When spinal misalignments disrupt nervous system communication, babies may experience difficulty latching and feeding, increased fussiness or colic, and even delayed milestones or poor coordination. Your baby's early reflexes aren't just movements, they are laying the groundwork for lifelong learning, emotional resilience, and physical spatial awareness. Ensuring their nervous system is functioning at its best through pediatric chiropractic care allows them to grow, develop, and thrive.

We know that movement is life. Even if your baby didn't experience all the cardinal movements of labor, you can help activate these neural pathways once they're born by doing things like the breast crawl, skin-to-skin contact, and baby wearing. The more input they have through movement, touch and connection, the more likely we are to assist their brain development.

When in doubt, snuggle that baby. You have that sacred unspoken language that only the two of you share. Trust in the power of this innate bond; it's yours to nurture with love and presence.

> -Stephanie Libs, DC Appears in Pathways to Family Wellness Magazine Issue #85