

Retained Primitive Reflexes as a Sign of Brain Imbalance



Infant Reflexes that do not Integrate Successfully can Lead to Developmental Delays

Primitive Reflexes are the first part of the brain to develop and should only remain active for the first few months of life. In typical development, these reflexes naturally inhibit in sequential order during the first year, and replacement reflexes, called postural reflexes, emerge. Postural reflexes are more mature patterns of response that control balance, coordination, and sensory-motor development.

Retained primitive reflexes can lead to struggles related to disorders like ADHD, sensory processing disorder, autism, and learning disabilities. The persistence of primitive reflexes contributes to issues such as coordination, balance, sensory perceptions, fine motor skills, sleep, immunity, energy

levels, impulse control, concentration, and all levels of social, emotional, and academic learning.

The good news is, we know that connections, or information pathways, in the brain can change and develop in a way that may lead to improvements in these symptoms. Brain Balance has applied this research to develop a program that focuses on improving the foundation of development and brain connectivity, rather than masking symptoms or coping with them for life. The Brain Balance Program includes a personalized plan to integrate a child's retained primitive reflexes along with many other key exercises for improvement. Your dedicated performance coach will help your child and your family make progress toward your goals.

Causes of Retained Primitive Reflexes

Retention of primitive reflexes can be caused by a variety of factors. The birth process is a key factor in the integration of these reflexes. Therefore a traumatic birth experience or birth by c-section may lead to retained reflexes. Additional causes can include: falls, traumas, lack of tummy time, delayed or skipped creeping or crawling, chronic ear infections, head trauma, and vertebral subluxations.

Types of Primitive Reflexes

- **Moro Reflex:** The Moro reflex acts as a baby's primitive fight/flight reaction and is typically replaced by the adult startle reflex by four months old. If a child experiences a retained Moro reflex beyond 4 months, he may become over sensitive and over-reactive to sensory stimulus resulting in poor impulse control, sensory overload, anxiety and emotions, and social immaturity. Some additional signs of a retained Moro reflex are motion sickness, poor balance, poor coordination, easily distracted, unable to adapt well to change, and mood swings.

- **Rooting Reflex:** The rooting reflex assists in the act of breastfeeding and is activated by stroking a baby's cheek, causing her to turn and open her mouth. Retention of the rooting reflex beyond four months may result in difficulty with solid foods, poor articulation, and thumb sucking.
- **Palmar Reflex:** The palmar reflex is the automatic flexing of fingers to grab an object and should integrate by six months. If the palmar reflex is retained, a child may have difficulty with fine motor skills, stick out tongue while writing and exhibit messy handwriting.
- **ATNR:** Asymmetrical tonic neck reflex (ATNR) is initiated when laying babies on their back and turning their head to one side. The arm and leg of the side they're looking should extend while the opposite side bends. This reflex serves as a precursor to hand-eye coordination and should stop by six months.
- **Spinal Galant Reflex:** The spinal galant reflex happens when the skin along the side of an infant's back is stroked, the infant will swing towards the side that was stroked. This reflex helps with the birthing process and should inhibit between three and nine months. If it persists, it may affect a child's posture, coordination attention, and ability to sit still. Retention of the spinal galant reflex is also associated with bedwetting.
- **TLR:** The tonic labyrinthine reflex (TLR) is the basis for head management and helps prepare an infant for rolling over, creeping, crawling, standing, and walking. This reflex initiates when you tilt an infant's head backward while placed on the back causing legs to stiffen, straighten, and toes to point. Hands also become fisted and elbows bend. It should integrate gradually as other systems mature and disappear by 3 1/2 years old. If retained, the TLR can lead to poor

muscle tone, a tendency to walk on toes, motion sickness, and poor balance.

- **Landau Reflex:** The landau reflex assists with posture development and technically is not a primitive reflex as it is not present at birth. It is when a baby lifts his head up causing the entire trunk to flex and typically emerges at around 3 months of age. It is fully integrated by one year. If the landau reflex persists beyond this point, children may experience short-term memory problems, poor motor development, and low muscle tone.
- **STNR:** Also known as the crawling reflex, symmetrical tonic neck reflex (STNR) is present briefly after birth and then reappears around six to nine months. This reflex helps the body divide in half at the midline to assist in crawling - as the head is brought towards chest, the arms bend and legs extend. It should disappear by 11 months. Developmental delays related to poor muscle tone, tendency to slump while sitting, and inability to sit still and concentrate can result if the STNR is retained.

The following chart is a useful guide and breaks down the various primitive reflexes listed above into a quick reference. More information can be obtained at [one of our local centers](#).

[Take Our Online Quiz](#)

If you suspect your child has retained primitive reflexes that may be contributing to behavior issues and/or academic challenges, [contact your local center today for a Brain Balance Personalized Assessment.](#)

The Brain Balance Personalized Assessment is an objective and quantifiable measurement of each area of function – motor, sensory, behavioral, social, emotional, and academic – allowing us to better understand your child's unique challenges.

[GET STARTED TODAY](#)

For over a decade, the Brain Balance has helped over 50,000 individuals who struggle with learning and developmental issues through our drug-free brain training program.

Sources

[Learning Difficulties Due to Poor Connectivity](#)

Effect of the Brain Balance Program® on Cognitive Performance in Children and Adolescents with Developmental and Attentional Issues