

MODULE 1

What are primitive reflexes?

- At birth, primitive reflexes are present to assist in survival - many develop in utero. These involuntary movement patterns are designed to keep the newborn alive and help with development throughout infancy.
- They are "automatic, stereotyped movements, directed from the brain stem and executed without cortical involvement." (Goddard)
- The kicker here is that these primitive reflexes do not stay forever; they should integrate - or mature.
- Some primitive reflexes integrate before the first year, while some integrate as late as 3 years.
- When a primitive reflex integrates, it makes way for new, more mature and intentional movement patterns, and higher-level learning to develop.

How do primitive reflexes naturally integrate?

- Primitive reflexes are not meant to remain in the body forever. Once they integrate, more mature and voluntary movements appear.
- Primitive reflexes are meant to integrate naturally - through movement, or what we call "developmental milestones."
- Developing head control, tummy time, rolling, crawling, etc. - these are all examples of natural movements that will assist in natural primitive reflex integration.
- When you look closely, you can often see primitive reflexes integrate as new developmental milestones are reached!

What if primitive reflexes do not integrate?

- Each primitive reflex comes with its own set of movements and leads to new and different developmental milestones.
- If a specific reflex is retained, it may affect a specific area of development.
- Additionally, many reflexes are directly related to one another. Therefore, if one reflex is retained, we can assume that others may also be retained.

Retained primitive reflexes

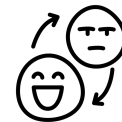
- If a primitive reflex does not integrate naturally, this is an indication of structural weakness or immaturity within the CNS (central nervous system).
- Instead of mature, voluntary movement patterns, a child with retained primitive reflexes may develop abnormal movement patterns which can result in clumsiness. This can affect a child's ability to participate in daily activities.
- When children retain primitive reflexes, they will often struggle with:



Social Skills



Coordination for Playing Games or Sports



Emotional Regulation



Problem Solving



Focusing in Class



Reading & Writing



Anxiety

What causes a primitive reflex to not integrate?!

Not a lot of definitive research has been done to determine exactly why primitive reflexes may be retained.

However, there have been some potential factors identified.

DURING PREGNANCY:

- Hyperemesis or severe morning sickness
- Severe viral infection during the first 12 weeks or between 26-30 weeks
- Alcohol / drug use / medications / smoking
- Radiation
- Severe stress or trauma, especially during weeks 25-27
- Stroke in utero
- Conceived as a result of IVF

DURING DELIVERY:

- Premature birth
- Prolonged or fast labor
- Assisted delivery, i.e. use of force vacuum extraction
- Trauma during birth
- Induced labor
- Caesarean section delivery
- Cord wrapped around infant's neck; fetal distress

AFTER BIRTH:

- Prolonged jaundice
- Problems with feeding within the first 6 months of life
- Developmental motor delays
- Minimal floor time as an infant
- Low birth weight
- Excessive use of containers during infancy
- Adverse reactions to any of the inoculations

INFANCY / TODDLERHOOD:

- Torticollis
- Tongue / lip tie
- Cerebral Palsy or other physical disability
- Down Syndrome or other intellectual disability
- Severe traumatic event
- Traumatic brain injury (TBI)
- Epilepsy
- Autism

This is not an exhaustive list, but simply some potential factors that have been identified in correlation with retained primitive reflexes.

These factors, however, are not a guarantee that a child's primitive reflexes will be retained.