

PRIMITIVE REFLEXES

What are primitive reflexes?

- Primitive reflexes are developed prenatally in the brain and should only be present for the first months of life. These reflexes are replaced with postural reflexes that control balance, coordination and sensory motor patterns.

What causes retained or disinhibited primitive reflexes?

- There are a wide range of causes from difficulties during the birthing process, **falls, trauma**, delayed or skipped creeping/crawling, chronic ear infection, neuro-degenerative disease, and vertebral subluxations.

What does it mean if reflexes are retained?

- Retained reflexes lead to difficulties balance, posture, coordination, focus, fine motor skills, fatigue and visual deficits.

How to inhibit these reflexes?

- EXERCISES!!! Specific exercises geared towards the reflexes completed daily will fatigue and reintegrate the reflex.

Key Facts for Inhibition Exercises

- Exercises should be completed in a SLOW and purposeful manner
- Quality exercises over quantity
 - Form is very important when integrating exercises- try to complete exercises in front of mirror or family member to ensure proper form when completing exercises
- Integration exercises will account for your time allotted towards your daily HEP.
- **It is normal for exercises to cause increase in symptoms** due to difficulty- symptoms should decrease with continued completion of exercises.

Common Primitive Reflexes Associated with Brain Injuries and Visual Deficits

Reflex	Purpose	How it Looks in a Baby	When it appears	When it goes away	Signs of retention
Moro	Flight or fight response, startle reflex	Automatic reaction to a sudden change in sensory stimulation. Startle response. Primitive fight or flight reaction	Birth	2-4 months	Hypersensitivity, hyper-activity, poor impulse control, sensory overload, social and emotional immaturity, difficulty sleeping, poor balance and coordination, difficulty with vision, reading or writing, easily fatigued
ATNR	Assist baby through birth canal and develop cross pattern mvmts	Activated by turning head to side and arm and leg on the same side will extend while the opposite limbs bend	Birth	6 months	Difficulty with hand-eye coordination, handwriting, crossing vertical midline, visual tracking
STNR	Preparation for crawling	While on stomach head is bent down towards chest- arms bend and legs extend; when head is extended arms straighten, and legs bend	6-9 months	9-11 months	Slump while sitting, poor ms tone, W sitting, poor hand-eye coordination, inability to sit still and concentrate
Spinal Galant	Assist baby with Birth process, crawling and creeping	Hip rotation when back is touched on either side of spine	Birth	3-9 months	Unilateral or bilateral posture issues, fidgeting, bedwetting, clothing issues, poor concentration, poor short term memory, fatigue,
TLR	Head management, rolling over, crawling, creeping, standing and walking	Initiates when baby is on back head is flexed and legs flex and arms flex into "fetal position" Initiates on stomach head is extended and arms and legs extend into "superman position."	Birth	3-5 years	Difficulty with balance, tracking, convergence, poor sequencing, poor sense of time, decreased muscle tone, toe walking, motion sickness, visual perceptual difficulty