



Better Brains, Better Behaviour

A Parent's Toolkit for Home-Based Support



Primitive Reflex

Helping Your Child Thrive:

*How Integrating Primitive Reflexes Supports Your
Child's Behavior and Healthy Brain Development.*



What Is Primitive Reflex?

➤ Why Does it Matter?

Primitive reflexes are automatic movements babies are born with that help them survive and develop in early life—like sucking, grasping, or turning their head.

These reflexes are controlled by the brainstem and should naturally fade as the brain matures.

If they remain active beyond infancy and childhood, they can interfere with a child's coordination, focus, learning, and emotional regulation. Recognizing and integrating these reflexes can support healthier development and behaviour.



Unintegrated Primitive Reflex...

➤ What happen when Primitive Reflexes are unintegrated?

➤ Here are a few common presentations on children

- Poor coordination and balance
- Difficulty sitting still or fidgeting constantly
- Delayed motor skills (e.g. crawling, walking, handwriting)
- Trouble with focus and attention
- Emotional outbursts or low frustration tolerance
- Bedwetting beyond typical age
- Sensory sensitivities (to sound, touch, light, etc.)
- Poor posture or slouching
- Difficulty with reading, writing, or math
- Social or behavioral challenges

Unintegrated Primitive Reflex

► Here are a few common disorders associated with unintegrated reflexes in both adult and children

- ADHD
- Autism Spectrum Disorder (ASD)
- Sensory Processing Disorder (SPD)
- Learning disabilities (e.g. dyslexia, dysgraphia)
- Developmental Coordination Disorder (Dyspraxia)
- Anxiety
- Speech and language delays
- Oppositional Defiant Disorder (ODD)



Common Types of Primitive Reflexes

- *Palmar*
- *Plantar*
- *Rooting*
- *Spinal Galant*
- *Tonic Labyrinthine*
- *Symmetrical Tonic Neck*
- *Asymmetrical Tonic Neck*
- *Moro*



Palmar Reflex

- The palmar reflex is an automatic grasping response when the palm is touched. Present at birth, it helps with bonding and early motor development. It should disappear by **4 to 6 months**.
- If retained, it may affect fine motor skills, handwriting, and coordination.
- **How to Check?**
 1. **Have your child relax** their hand, palm facing up.
 2. **Gently stroke** or press the center of their palm.
 3. **Observe the response:**

If their fingers **automatically close or grasp**, the reflex may still be active.
 4. Repeat on both hands.

How to Fix?

■ Hand Stretch & Press

- Use a brush or back of a pen to stroke palm of the hand 10x each side
- Press palms together and hold for 10 seconds (like prayer pose)

■ 2. Tactile Play

- Use sensory materials (playdough, sand, textured balls)
- Encourage squeezing, pinching, and rolling activities

■ 3. Crawling or Bear Walks

- Have your child crawl across the floor
- Helps improve hand development and body coordination

■ 4. Finger Isolation Games

- Touch each fingertip to the thumb, one at a time
- Try piano-style finger tapping or finger puppets

■ 5. Fine Motor Play

- Use tweezers to pick up small objects
- Thread beads, use scissors, or do finger painting





Plantar Reflex

► What it is:

- Toes fan out when foot sole is stroked

► Fades by:

- 12 months

► How To Check:

- Stroke sole of foot from heel to toes

► If retained:

- Poor balance, awkward walking

How to Fix?

➤ 1. Toe Curls & Spreads

- Ask your child to curl and spread their toes
- Try picking up small objects (like marbles or tissues) with their toes
- Repeat 10x per foot

➤ 2. Foot Massage

- Gently massage from heel to toe using your hands or a textured ball
- Helps desensitize the sole of the foot
- 1–2 minutes per foot

➤ 3. Heel-Toe Walking

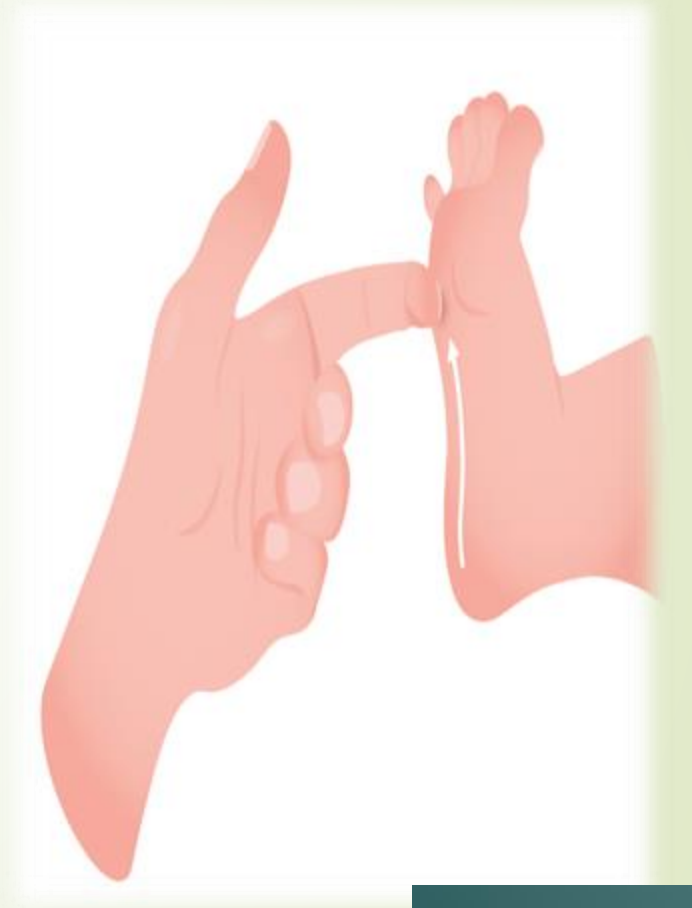
- Walk slowly across the room with exaggerated heel-to-toe steps
- Keep balance and repeat back and forth 3–5 times

➤ 4. Balance Exercises

- Stand on one foot (support if needed), then switch
- Try a balance board or cushion for added fun
- Builds postural stability and foot control

➤ 5. Crawling

- Encourage crawling (hands and knees or army crawl)
- Strengthens foot arches and lower body coordination





Rooting Reflex

➤ What it is:

- Head turns toward cheek stimulation (feeding reflex)

➤ Fades by:

- 3–4 months

➤ How To Check:

- Stroke the cheek—watch if head turns and mouth opens

➤ If retained:

- Messy eating, hypersensitive face, speech delay

How to Fix?

➤ 1. Facial Massage

- Use your fingers or a soft cloth to gently massage:
 - Along the jawline
 - From the nose to the corners of the mouth
 - Along the cheeks toward the ears
- Use light, circular motions for 1–2 minutes

➤ 2. Tactile Stimulation Around the Mouth

- Lightly touch around the lips with a soft toothbrush, or cotton swab
- Do short taps in a circular pattern—avoid inside the mouth
- Helps reduce involuntary head turning and mouth-opening

➤ 3. Straw Drinking or Blowing Games

- Use different-sized straws for thick liquids (like smoothies)
- Blow cotton balls, bubbles, or pinwheels
- Strengthens lip and cheek muscles





Spinal Galant Reflex

➤ What it is:

- Hip moves when lower back is stroked

➤ Fades by:

- 3–9 months

➤ How To Check:

- Stroke one side of lower back—watch for hip twitch

➤ If retained:

- Fidgeting, bedwetting, difficulty sitting still

How To Fix?

➤ 1. Snow Angel Exercise

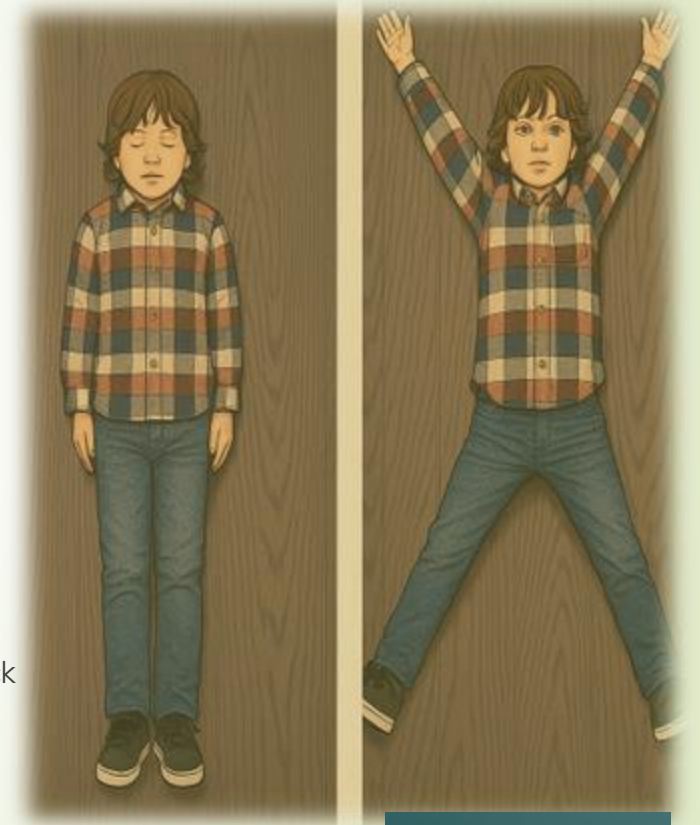
- Have your child lie on their back, arms at sides, legs straight
- Slowly move arms and legs outward like making a snow angel
- Keep movements controlled and smooth
- Repeat 10 times

➤ 2. Crawling (Army or Bear)

- Encourage crawling activities:
 - Army crawl (belly on the ground)
 - Bear walk (hands and feet only, hips up)
- Builds core strength and supports reflex integration

➤ 3. Back Brushing

- Use a soft brush or cloth to gently stroke along the sides of the lower back
- Start from just above the hips and move upward
- Helps desensitize the reflex trigger zone
- Do each side for 30 seconds





Tonic Labyrinthine Reflex

➤ What it is:

- Body extends when head tilts back; flexes when head tilts forward

➤ Fades by:

- 3.5 years

➤ How To Check:

- Have child lie on back and lift head—watch for full-body stiffness or arching

➤ If retained:

- Poor posture, balance issues, motion sensitivity, weak core

How to Fix?

➤ 1. Superman Pose (Extension)

- Child lies on stomach, lifts arms, chest, and legs off the ground
- Hold for 5–10 seconds
- Repeat 5–10 times
- Builds postural control and back strength

➤ 2. Egg Roll (Flexion)

- Child hugs knees to chest while lying on back
- Gently rock side to side like a ball
- Encourages balanced flexion response

➤ 3. Cat-Cow Stretch

- On hands and knees: arch back up (cat), then drop belly down and lift head (cow)
- Move slowly with breathing
- Repeat 10 times
- Improves spinal flexibility and head-body coordination





Symmetrical Tonic Neck Reflex

► What it is:

- When the head looks up, arms straighten and legs bend; when the head looks down, arms bend and legs straighten

► Fades by:

- 9–11 months

► How To Check:

- Place child on hands and knees, move head up/down—watch arm/leg reactions

► If retained:

- Poor posture, slouching at desk, trouble sitting still, delayed crawling and reading/writing challenges

How to Fix?

➤ 1. Cat-Cow Stretch

- On hands and knees:
 - Head down → round the back (cat)
 - Head up → arch the back (cow)
- Repeat slowly 10 times
- Strengthens neck-spine coordination and reflex pattern release

➤ 2. Rocking on All Fours

- In crawling position, gently rock back and forth
- Head stays in neutral position
- Builds core stability and movement control

➤ 3. Crawl Tracks

- Encourage slow, deliberate crawling (hands and knees, not belly)
- Try over different textures (rug, mat) for sensory feedback
- Enhances integration through cross-pattern movement

➤ 4. Seated Head Nods

- While sitting upright, slowly look up and down
- Focus on keeping arms and legs relaxed
- Reinforces head-body separation





Asymmetrical Tonic Neck Reflex

► What it is:

- “Fencing” posture—arm and leg extend on the side the head turns to

► Fades by:

- 6 months

► How To Check:

- Turn head to one side while child is on hands and knees

► If retained:

- Struggles with midline crossing, handwriting, and coordination

How To Fix?

➤ 1. Lizard Crawl (Belly Crawl with Cross Pattern)

- Lie flat on stomach
- Move one elbow and opposite knee forward at the same time, low to the ground
- Slow, controlled movements to promote brain-body coordination
- Crawl across the floor 3–5 times

➤ 2. Bear Walk

- Hands and feet on the ground, hips raised
- Walk forward slowly using opposite hand and foot
- Builds postural strength and cross-lateral movement

➤ 3. Wall Crawl Game

- Face a wall and crawl hands up/down while lifting opposite knee
- Try tapping opposite elbow to raised knee while maintaining balance
- Repeat 10x per side

➤ 4. Yoga Flow: Child's Pose → Cobra → Downward Dog

- Move through these poses slowly
- Promotes flexibility, core engagement, and nervous system regulation





Moro Reflex

➤ What it is:

- Sudden arm and leg flinging when startled (response to loud noise or head movement)

➤ Fades by:

- 4–6 months

➤ How To Check:

- Gently tilt your child backward from a sitting position or make a soft sudden noise

➤ If retained:

- Heightened anxiety, sound/light sensitivity, emotional reactivity, poor impulse control, sleep issues

How to Fix?

1. Starfish Exercise

- Start in a wide "X" shape (arms and legs spread)
- Curl into a tight ball (hug knees, tuck chin)
- Slowly stretch back out to X position
- Repeat 10 times slowly and calmly

2. Swiss Ball Spinal Extension (Superman on Ball)

- Lie face down on a Swiss ball
- Gently roll forward/back as child lifts head, arms, and legs
- Hold 5–10 seconds, repeat 5x
- Strengthens posture and back muscles

3. Backwards Bend Over Swiss Ball

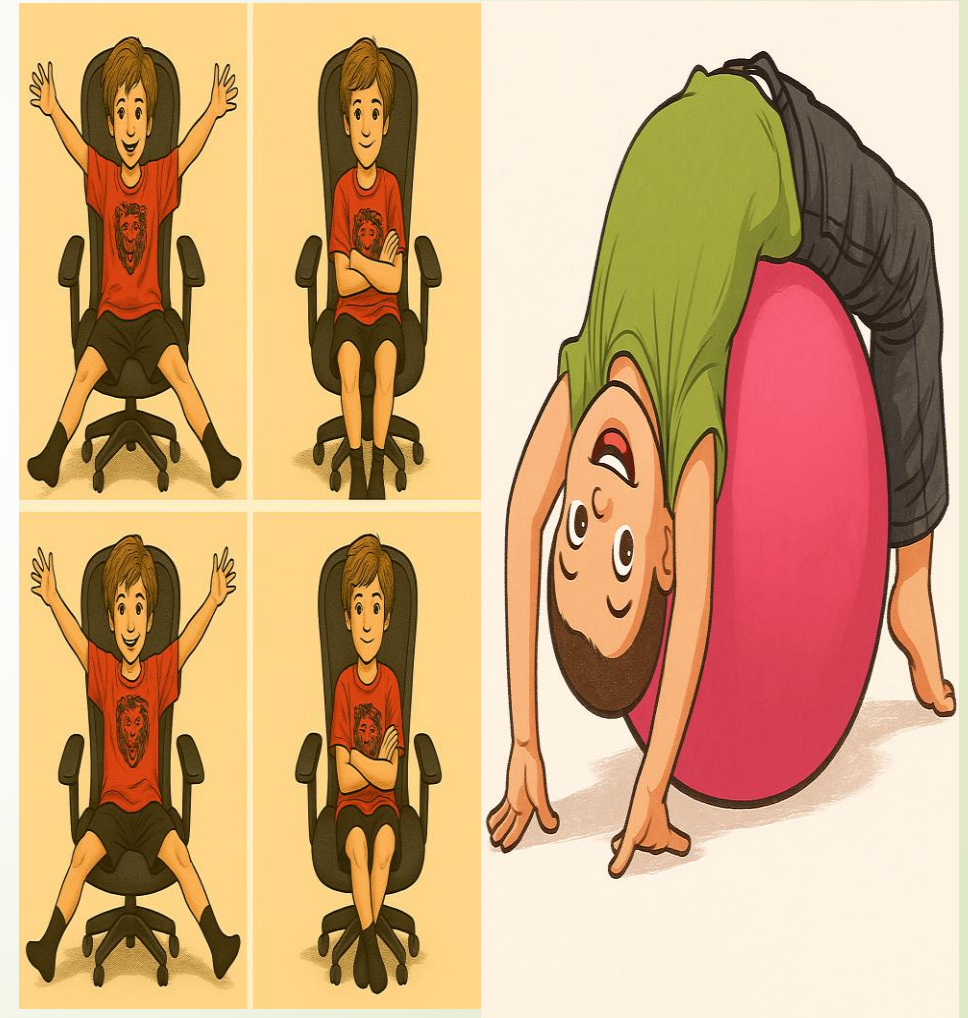
- Sit child on the floor or kneel beside them
- Slowly help them lean backward over the Swiss ball
- Arms stretch over head, back arches gently
- Hold for 10–20 seconds (ensure head is supported if needed)
- Enhances vestibular balance and calms the reflex loop

4. Deep Pressure Input

- Firm hugs, body roll in blanket, or weighted lap pad
- Regulates tactile and proprioceptive systems

5. Rhythmic Movement

- Gentle swinging, slow bouncing on ball, or hammock play
- Calms overstimulated nervous system and helps reset reflexes





Dosage

- Every individual is different. A simple guide is as below. Furthermore, perform a short recheck of those reflexes after a certain number of repetition
- Optimal Exercise Frequency= Number of repetition that results in signs of reflex attenuation right after exercise performance.
- **Repetition:**
 - 5–10 reps or 3–5 minutes per activity
 - Practice **daily** for 6–10 weeks
- **Duration per session:**
 - 5–10 minutes total is enough
- **What to look out for:**
 - **Slow, controlled movement**
 - **Calm breathing**
 - Avoid overstimulation—child should stay relaxed
 - Signs of progress: improved emotional regulation, reduced startle, better focus



Thank you!

- *The presentation and material is created mainly for educational purposes only.*
- *Please refer to appropriate medical professionals for diagnosis and guidance on how to proceed.*

References

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