



## All About the TLR Reflex

The **Tonic Labyrinthine Reflex (TLR)** is a foundational primitive reflex present at birth. It helps babies develop an awareness of gravity and their own body in space. The reflex is activated by the position of the head:

- When the head tilts back (extension) → the body extends (arms and legs straighten)
- When the head tucks forward (flexion) → the body curls in (arms and legs bend)

This automatic response plays a crucial role in early balance, posture, and head control development.

### When Should the TLR Reflex Integrate?



The TLR reflex should begin to fade by 4 months of age and be fully integrated by 6 months. As voluntary motor control develops, the child should no longer rely on these automatic responses when moving or adjusting posture.

When TLR is retained, the child may show difficulties with posture, coordination, and processing movement through space.



### Why Does the TLR Reflex Exist?

TLR helps:

- Develop head and neck control against gravity
- Strengthen muscle tone through extension and flexion patterns
- Build postural foundations for rolling, crawling, and walking
- Stimulate the vestibular system (balance and spatial awareness)

When properly integrated, the child can move and maintain posture with control and balance. When retained, the body may stay stuck in flexed or extended positions during movement.

### Signs of a Retained TLR Reflex

A retained TLR reflex may present in different ways depending on whether flexion or extension dominates:

- Poor balance and coordination
- Difficulty sitting upright or slouching when seated
- Toe-walking or walking on heels
- Fear of heights or having head tilted backward
- Discomfort during head movement or inversion (e.g., somersaults)
- Delays in rolling, crawling, or walking
- Poor attention or visual tracking (linked to head positioning)

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## Parent Education: Why It Matters

If TLR is retained, the child may struggle with activities that require postural stability or coordinated movement. They may:

- Avoid climbing, swinging, or head-tilting activities
- Constantly lean on objects for support
- Have difficulty copying from the board or tracking with the eyes

These issues may impact motor skills, confidence, and classroom participation. Thankfully, consistent and rhythmic movement activities can support integration and help children feel more grounded in their bodies.

## 5 Simple TLR Integration Exercises for Home

These movements target head position, core control, and vestibular input. Practice them several times a week in a calm, supportive setting.

### 1. Tummy Time Extensions

- Lie on tummy and lift head, chest, and arms.
- Reach for toys placed in front.
- Hold for a few seconds, then relax.

### 2. Rock and Roll

- Sit on floor hugging knees to chest.
- Gently rock backward and forward like a roly-poly toy.

### 3. Bridging

- Lie on back with knees bent.
- Push hips upward into a bridge.
- Slowly lower back down with control.

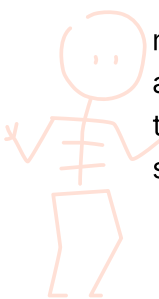
### 4. Airplane Pose

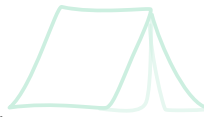
- Lie on tummy with arms and legs outstretched.
- Lift arms, legs, and head off the ground like flying.
- Hold briefly, then rest.

### 5. Slow Inversions

- Help child hang upside-down over a therapy ball, couch armrest, or your lap.
- Support and move slowly while encouraging head movement.

These exercises provide controlled experiences with head positioning and body orientation. They help retrain the nervous system to regulate tone and postural responses during movement. By introducing repeated, predictable head movements—such as lifting, lowering, and adjusting position in space—these activities stimulate the vestibular system and help the body understand how to maintain balance and respond appropriately to gravitational shifts. They encourage the brain to develop more refined motor control, allowing children to





shift away from reflexive responses and build intentional, stable posture and movement. Over time, this improves coordination, spatial awareness, and the child's overall ability to move with confidence and control.

## 5 Playful Ways to Integrate TLR Reflex Support

Use natural play opportunities to explore head movement and body control:

### 1. Rolling Down a Hill or Mat

Find a grassy hill or use a soft mat to encourage forward rolls or log rolls.

### 2. Yoga Play (Downward Dog & Cobra)

Introduce animal yoga poses that encourage head flexion and extension in a playful way.

### 3. Swinging or Spinning Games

Use a swing, hammock, or blanket swing to create gentle back-and-forth or rotational movement involving the head.

### 4. Pretend Diving

Pretend to be dolphins or swimmers diving into the ocean—head tucks down, body follows.

### 5. Ball Rocking

Place child tummy-down over a peanut ball. Gently rock them forward and back while encouraging them to lift and lower their head.

## Rhythmic Reflex Play for the TLR Reflex (For young or low-attention children)

### 1. Tummy Rock & Reach

What to do:

- Lay your child on their tummy on the floor, a blanket, or a therapy ball.
- Gently rock them forward and back while encouraging (or helping) them to lift their head to look forward and lower it to rest.
- Add small toys or rattles to reach for if attention allows.

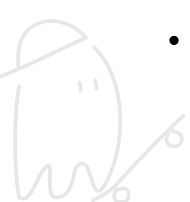
Why it helps:

- Encourages active head extension and flexion, gently stimulating the TLR in a supported way.
- Builds vestibular awareness and core strength through gentle, rhythmic motion.
- Helps integrate the reflex through safe movement in and out of the TLR posture.

### 2. Cuddle Ball Curl & Stretch

What to do:

- Have your child sit or lie back in your arms or over a soft bolster.
- Gently guide them through curling into a ball (tuck head, arms, legs) and then stretching outward like a star.
- Repeat with soft humming or a lullaby rhythm ("curl... stretch...").





Why it helps:

- Mimics the flexion/extension pattern of the TLR, but through playful, calming movement.
- Helps the child begin to feel where their body is in space without visual cues.
- Creates a soothing repetition that reduces the body's reliance on primitive reflexive responses.

### 3. Rolling Hill Game

What to do:

- Place your child on a mat or soft surface and slowly roll them side to side (log rolls), or gently forward and back like they're rolling down a grassy hill.
- Narrate with a simple repetitive story: "The bunny rolled... and rolled... and peeked up!"



Why it helps:

- Encourages head movement in multiple directions, stimulating the vestibular system.
- Provides passive vestibular input to help organize body tone and balance.
- Gives a chance for full-body movement without needing the child to actively initiate posture.

Helping your child integrate the TLR reflex strengthens posture, balance, and spatial confidence. Keep movement playful, predictable, and joyful. Follow your child's lead and adjust based on what feels safe and enjoyable.

