



All About the STNR Reflex

The **Symmetrical Tonic Neck Reflex (STNR)** is a primitive reflex that emerges later than most—typically around 6 to 9 months of age. It plays a crucial role in helping babies transition from lying down to crawling by coordinating head and limb movement. When the head moves:

- Head down → arms bend, legs straighten
- Head up → arms straighten, legs bend

This reflex creates a “see-saw” movement that helps the body learn how to shift weight and separate upper and lower body actions. It is temporary and should phase out once crawling is established.

When Should the STNR Reflex Integrate?

The STNR reflex typically integrates by 11 to 12 months of age, as babies begin crawling and developing postural control. Integration means the reflex no longer automatically triggers movement—it becomes voluntary and controlled.

If it remains active beyond this age, it may interfere with posture, coordination, and classroom participation.

Why Does the STNR Reflex Exist?

STNR helps a baby:

- Learn to get into a crawling position
- Develop core strength and postural control
- Separate upper and lower body movement
- Coordinate vision with head movement



It is a transitional reflex—designed to bridge the gap between primitive reflexes and postural reflexes. Once its job is done, it should be integrated.

Signs of a Retained STNR Reflex

If the STNR reflex is retained past one year of age, children may show:

- W-sitting to stabilize posture
- Poor sitting posture (slouching, leaning on arms or desk)
- Difficulty learning to crawl or skipping crawling entirely
- Trouble looking up and down without losing balance
- Stiff, awkward movements when climbing stairs or standing from the floor
- Challenges with hand-eye coordination and copying from the board

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Parent Education: Why It Matters

When STNR is not integrated, the body may struggle with separating head movement from limb control. This creates challenges in:

- Postural endurance (sitting upright for long periods)
- Visual tracking (especially during reading and writing)
- Gross motor skills like crawling, jumping, or swimming

Retained STNR can lead to compensations like w-sitting or fidgeting to maintain balance. These can affect a child's ability to focus, participate in classroom activities, and develop coordination.



5 Simple STNR Integration Exercises for Home

These exercises support core strength, visual tracking, and upper-lower body coordination. Repeat 3–5 times per week in a quiet, open space.

1. Cat-Cow Stretch

- Begin in a hands-and-knees (quadruped) position.
- Inhale: lift head and arch back ("cow").
- Exhale: tuck chin and round spine ("cat").
- Repeat 5–10 slow cycles.

2. Rocking Table Pose

- Sit on hands and knees.
- Rock hips back toward heels, then forward.
- Keep head aligned with spine as you move.



3. Crawl and Pause

- Encourage slow, cross-lateral crawling.
- Pause mid-crawl and have your child look up, then down.
- Observe for collapse or stiffness.



4. Wall Push-ups with Head Movement

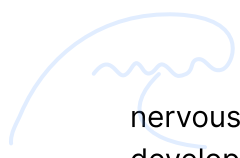
- Stand facing a wall. Place hands at shoulder height.
- Do gentle push-ups while moving head up and down.

5. Seated Head Nods

- Sit upright with arms folded.
- Slowly nod head up and down while keeping body still.
- Focus on separating head motion from trunk movement.

These exercises strengthen the neural pathways between the head, neck, and limbs. Repetitive, rhythmic movement encourages voluntary control over postural shifts and helps reduce compensatory patterns like w-sitting or leaning. By repeatedly coordinating head movement with corresponding upper and lower body actions, these activities retrain the





nervous system to move more fluidly and with greater intention. They also help the brain develop better motor planning, allowing children to transition smoothly between positions such as sitting, crawling, and standing. As these neural connections become more efficient, children begin to rely less on automatic, compensatory postures and more on balanced, upright control—leading to improved posture, core strength, and engagement in physical and academic activities.

5 Playful Ways to Integrate STNR Reflex Support

Use these fun activities to help children practice STNR movements without formal “exercise.”

1. Tunnel Crawls

Create a tunnel using furniture or play tunnels. Have your child crawl through while chasing a toy or pet.

2. Pretend Animal Walks

Be a cat, bear, or puppy. Mimic movements on all fours and stretch head up/down while “meowing” or “sniffing.”



3. Yoga Storytime

Create a simple story involving “cat-cow” and other yoga poses. Move through them together as the story unfolds.

4. Scooter Board Play

Lay on tummy and use arms to push across the floor. Add head lifts to look forward or down at target objects.

5. Look-and-Reach Games

Place stickers or cards on the wall at different heights. Have your child look up/down to spot and retrieve them while kneeling or squatting.

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

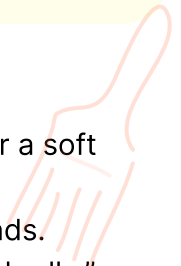
1. Rocking Puppy Pose

What to do:

- Place the child in a supported hands-and-knees (puppy) position on the floor or a soft mat.
- Gently rock them back and forth—hips toward heels, then forward over the hands.
- Add rhythm by singing a short tune or repeating calming sounds like “rock... and roll...”

Why it helps:

- Gently introduces the STNR head-body coordination pattern (forward head = arm bend, hip back).
- Builds tolerance for weight shifts and postural control without requiring instruction.
- Rhythmic rocking regulates the nervous system and supports balance.



2. Tummy Over Ball Head Moves

What to do:

- Lay the child over a peanut ball or therapy ball in a tummy-down position.
- Slowly guide the child's head up ("look up!") and then down ("look down!"), while supporting their trunk.
- Keep the rhythm slow and soothing—no need for verbal instruction if they're dysregulated.

Why it helps:

- Actively triggers the STNR reflex pattern (head movement changes arm/leg tone).
- Encourages postural control and body awareness through gentle vestibular and proprioceptive input.
- Allows for movement repetition in a fun, playful context.

3. Animal Parade Head Bobs

What to do:

- Crawl together like animals (cat, puppy, bear).
- As you crawl, encourage slow head movements: looking down to sniff the ground, then looking up to "find food" or "see the sky."
- Add a simple rhythmic chant or melody.

Why it helps:

- Supports integration of upper and lower body coordination by linking head movement to limb positioning.
- Reduces stiffness, promotes motor planning, and uses playful imitation to build engagement.
- Ideal for children who prefer imitation over direct instruction.

Helping your child integrate the STNR reflex can improve not just motor coordination, but also attention, posture, and confidence in movement. Keep things playful and consistent, and celebrate small wins. Movement becomes learning when it's joyful.