



Included in this guide:

- Primitive Reflex Assessments
- Checklist of Symptoms

Join the Movement to:



Primitive Reflexes

Physical Assessments

What happens when they remain?

What are They?

Primitive Reflexes are the special reflexes that develop in the brain stem before birth. This set of involuntary Primitive Reflexes help the baby with positioning in the womb, birthing, breathing, feeding, urination, etc. Most of these primitive reflexes go away throughout the first year of life as higher functions of the brain and muscle control develop.

If the reflexes remain, they interfere with the neurological organization of the brain which causes learning, behavioral, social, sensory and health problems. These remaining reflexes are unnoticed muscle movements in older children and adults that would not normally be noticed if one did not know what to look for. They cause ongoing issues until they are solved through exercises.

What can be Done?

If any of them remain past 12 months of age, they are called **Retained Primitive Reflexes** and they are a problem. There are simple exercises that can solve each one.

This process is called **Integrating Primitive Reflexes**. Once they are integrated through these little exercises, many Learning Disabilities, Behavioral and Sensory Disorders and health issues disappear or are greatly improved. You need to check for each of them, even if your child is not displaying the usual symptoms. If one remains unnoticed, it slows improvement in cognitive function.

Symptoms when Primitive Reflexes Remain:

Because Primitive Reflexes start at the base of the brain. Functions that try to develop above them do not wire properly. It can cause or contribute to:

- Autism
- Autism Spectrum Disorders
- Aspersers
- Hemispheric Imbalance
- Sensory Disorders
- Hyper Activity
- ADHD
- Speech Disorders
- Social Disorders
- Asthma and other immune problems
- Dyslexia
- Dysgraphia
- Dyscalculia

This is the first thing to check for. They can solve a multitude of problems. Other therapies or Brain Stimulation such as Hemispheric Integration Therapy, work best if Retained Primitive Reflexes are integrated or are being exercised first or at the same time.

How did this happen?

There are many children and adults that for one reason or another still have one or more Primitive Reflexes remaining. Some causes may include a traumatic birth, too much time laying in seaters or swings, induced labor, C-Section birth and lack of time playing on their tummy, aka 'tummy time'. But usually, there is not one specific reason.

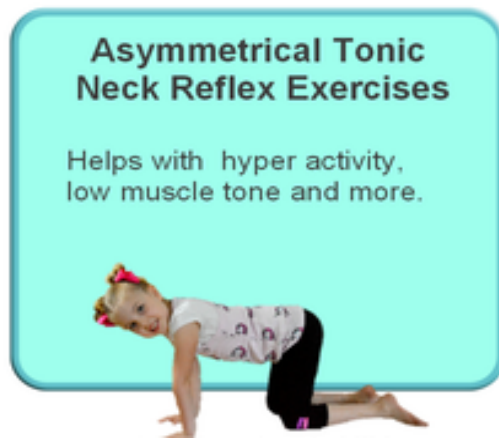
Fear not. These exercises are super simple and don't take much time. We recommend doing them 5-7 days per week for about 10 minutes per day for about 6 weeks. After the first 2 weeks, you can add any needed Sensory & Cognitive Exercises from Chapter 2 to their routine.

You know your child best. Don't do any of the tests or exercises that you, your doc, or therapist feels the child could not tolerate.

**"There is no greater
disability in society
than the inability
to see a person as
more."**

Robert M. Hensel |

Asymmetrical Tonic Neck Reflex (ATNR)



The Asymmetrical Tonic Neck Reflex, like the Spinal Galant Reflex helps the infant do their part of emergence through the birth canal. You will notice it in an infant if you turn the head to one side. The arm and leg on the same side will straighten, while the arm and leg on the opposite side will flex. The Asymmetrical Tonic Neck Reflex **should be integrated and gone by about 6 months**. If not, it can cause motor issues, reading, math and other learning problems.

The connection between the hand and eyes help develop depth perception and eye-hand coordination. If ATNR is

retained the child will have difficulty walking normally when turning his head or problems writing and reading when head movement is needed. For example, writing while looking back and forth to the blackboard or a book.

Asymmetrical Tonic Neck Reflex Symptoms:

- Hand eye coordination problems
- Awkward walk or gait
- Difficulty in school
- Immature handwriting
- Difficulty in sports
- Math and reading issues
- Poor balance
- Eye, ear, foot, and hand dominance will not be on the same side
- Difficulty in things that require crossing over the midline of the body
- Poor depth perception
- Shoulder, neck and hip problems
- Even if they don't display any of these symptoms, it is a good idea to do the quick test on them, as there may be other functions that are affected by it that are still unknown.

ATNR Tests:

Test 1:

Have the child stand facing you with arms and hands straight out in front of them. Ask the child to keep that position while turning their head to one side and then to the other. They should be able to move their head only.



Look for elbows to bend or shoulders to turn in the direction of the head. If so, their neck movements are still associated with their shoulders and the reflex is most likely present. Exercises recommended.

Test 2:

You can also have them get down on their hands and knees with their head straight out and face toward the floor. Ask them to look to one side then to the other side, keeping their neck and arms straight.



When their head is turned to the side, look for elbows to bend or the body to shift from one side to the other. If so, neck and shoulder movement is still connected. The reflex is most likely present. Exercises recommended.

Landau Reflex



The Landau Reflex is one that develops a few months after birth and remains until about 12 months old. It is useful in helping the child develop posture. If the Landau Reflex does not integrate (go away), it can cause posture, motor, and memory issues later on.

When holding the infant horizontally in the air, stomach down, the baby's legs will arch up if the head is up and drop down if the head is lowered. This is normal up to about 1 year. If it is still present in an older child, there are simple exercises to integrate it.

Retained Landau Reflex Test

Have the child lay flat on the floor, face down with arms straight out in front. Have the child lift their upper body and arms off the ground while keeping the top of their feet on the floor. If they struggle with keeping both feet flat on the floor, the Landau Reflex is most likely still present.

Exercise Recommended.



Moro Reflex or Startle Reflex

Moro Reflex Exercises

Helps with emotional immaturity, impulsivity, sensory, attention problems and learning disabilities.

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When a newborn is startled or receives sensory input like a jarring, sudden light or loud sound, the arms will flail out, then baby quickly curls up crossing both the arms and legs.

This is an involuntary reflex that is part of normal development

and **should disappear between 2-4 months of age**. Because this reflex is triggered by the sensory systems, it can cause an array of problems if it remains longer.

Pediatricians will check this reflex at the baby's 6 week appointment to make sure it is present. They seldom check in later appointments to make sure it was integrated and gone. It is not part of the pediatric list of assessments done at later appointments.

Because of the changing environment, procedures, and lack of tummy time, more children are not integrating this reflex.

Retained Moro Reflex Symptoms

- Easily Distracted
- Hypersensitive to sensory stimuli
- Or under sensitivity to sensory stimuli
- Overreacts
- Impulsive and aggressive
- Emotional immaturity
- Withdrawn or timid and shy
- Sensitive to light, sounds, and touch
- ADD
- ADHD
- Autism Spectrum
- Sensory Disorders
- Difficulty making friends
- Depression
- Health Problems
- Allergies and Asthma
- Anger or Emotional Outbursts
- Poor Balance and Coordination
- Poor Digestion and Food Sensitivities
- Even if they don't display any of these symptoms, it is a good idea to do the quick test on them, as there may be other functions that are affected by it that are still unknown.

Retained Moro Reflex Cont.

The Moro Reflex or “Startle Reflex” is the earliest development of the “fight or flight” instinct. When frightened or threatened, it triggers “reaction” or “retraction” from the threat. Because in infancy, it is triggered by the sensory system, it will contribute to sensory processing problems if not integrated. Because it triggers the Adrenals to “fight or flight” mode too often, it causes hyper activity and attention problems. Once the adrenals quickly tire of the over stimulation, the child usually develops chronic allergies, Asthma, Auto Immune and other health problems connected with fatigued adrenals. Furthermore, when the body is in 'fight or flight' mode, the brain is in an instinctual state and cannot store or recall information as well. This contributes to learning disabilities.

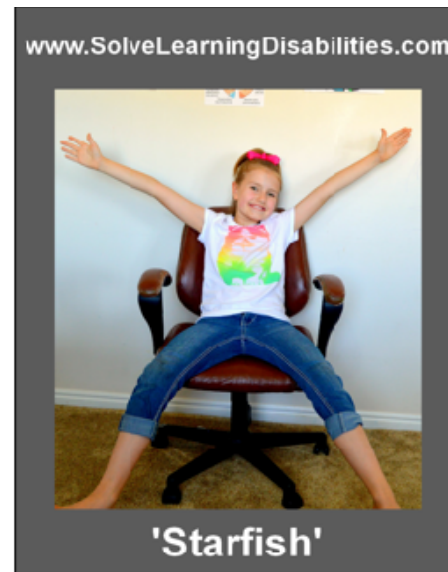
The reflex can be easily integrated with about 6 weeks of simple exercises. Many of the symptoms will disappear or improve as the brain and body start to function better.

MAKE IT FUN!

‘Play is the highest form of research.’

Ret. Moro Reflex Test

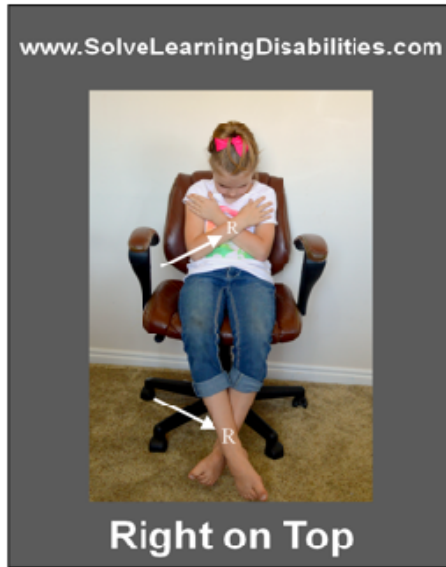
Have the child sit on a low chair or lay on their back. Ask them to open their arms and legs out like a starfish. Now ask them to bring them in crossing them as they curl up. You may need to demonstrate it for them or let them see the pictures below.



Generally they will cross with the opposite arm from leg on top. This is normal, at first, and the way they did it when startled as an infant.

Retained Moro Reflex Test Cont.

Next, ask them to spread arms and legs out again and cross/curl up, again but with the right leg and right arm on top. If they are too young to know right from left, put a sticker on the back of their right hand and on their right foreleg. Ask them to cross up with stickers on top.



Note if they struggle at this, or if an arm or legs flips under the other to keep the cross opposite, like on the previous page.

In some children and adults, the reflex is still strong enough to make it very difficult or impossible to put the same hand and leg on top, but will flip one under the other to keep the cross opposite.

Now do the same with the left side.

They should be able to cross arms and legs with right on top, then open up and cross left on top, back and forth in a rhythmic pattern.



If they struggle doing this on either side, the reflex is still present and needs to be integrated with the "Starfish Exercises" on the next page.

This is one of the most common Primitive Reflexes retained in kids with Impulse, Attention and/or Hyper Activity problems.

Palmar Reflex



The Palmar Reflex is seen when an infant grips around an object that touches their palm. This is normal in infancy and helps the baby learn to

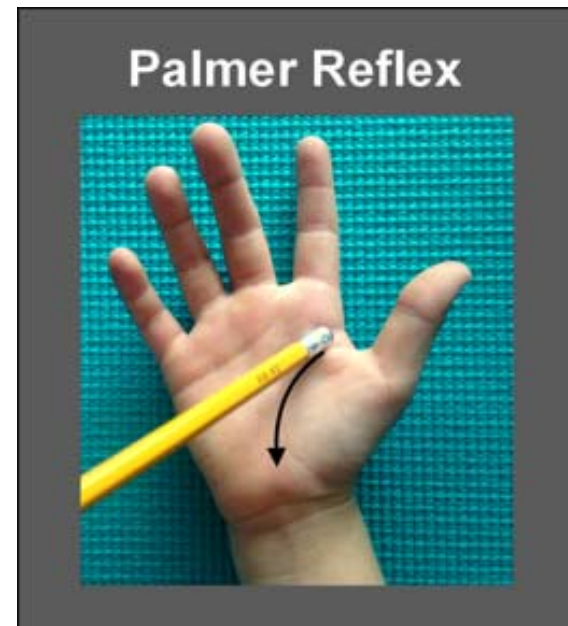
grip and hang on to things with their hands. The Palmar Reflex should disappear at around 3-6 months of age as they gain hand control. If it isn't properly integrated it can cause an array of problems.

Retained Palmar Reflex Symptoms

- Poor dexterity
- Poor fine motor skills
- Slumpy posture when using hands
- Back aches when sitting
- Messy handwriting and poor pencil grip
- Sticks tongue out when using hands
- Poor ability to put thoughts to paper
- Dysgraphia
- Speech and language problems
- Anger control issues
- Even if they don't display any of these symptoms, it is a good idea to do the quick test on them, as there may be other functions that are affected by it that are still unknown.

Palmar Reflex Test

Have your child hold their hands out toward you with elbows straight, palms open flat and up. Brush along their life line crease starting between their thumb and finger, then across their palm toward their wrist. Do this 3 times. Look for either their fingers to twitch or their elbows to twitch and bend in slightly. Do this on both hands. If either hand or elbow shows movement, the reflex is most likely present. Exercise both hands.



Rooting Reflex

Rooting Reflex Exercise

Helps with hand control, memory speech and more.



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The Rooting Reflex is important in helping an infant locate food. You will notice it in a newborn if you brush your finger down one side of the mouth. The baby will turn toward the stroke and open the mouth. This is normal and

should be gone by about 4 months.

If it is not properly integrated, it can contribute to speech disorders, eating problems and other health issues.

The Rooting Reflex is closely related to the Palmar Reflex. Because these reflexes are so closely related, the hand and mouth can affect each other. For example, these retained reflexes can cause speech problems when using their hand, such as writing, or poor penmanship when chewing gum.

You may have seen this connection in an infant that twitches their curled up hands while sucking a bottle.

Retained Rooting Reflex Symptoms

- Tongue lies too far forward
- Hyper sensitive around mouth
- Difficulty with textures and solid foods
- Thumb sucking
- Speech and articulation problems
- Difficulty swallowing and chewing
- Dribbling
- Hormone imbalance
- Thyroid problems and autoimmune tendency
- Dexterity problems when talking
- Even if they don't display any of these symptoms, it is a good idea to do the quick test on them, as there may be other functions that are affected by it that are still unknown.

YOU CAN DO THIS!

Rooting Reflex Test

Stroke down around one side of the child's mouth from nose to chin. Do this three times, moving a little further out from the mouth each time. Repeat on the other side of the mouth.

Rooting Reflex Test



Look for their mouth or hands to twitch on either side.

If it does, the reflex is most likely still present. *Exercise Recommended!*

Spinal Galant Reflex Exercises

Helps with Poor Concentration, Attention Deficit and Fidgety Kids.



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Spinal Galant Reflex

In Infancy, the Spinal Galant Reflex and ATNR are necessary to help the unborn infant descend down the birth canal. It also helps the baby urinate after birth.

You will see the reflex in an infant if you gently stroking down one side of the lower part of the spine. The baby's arms and legs will sway toward the direction of the stroke almost like being ticklish. If both sides of the spine are stroked at the same time it induces urination. However, the Spinal Galant Reflex should be gone by 3-9 months as higher muscle control develops.

Retained Spinal Galant Symptoms

- Poor concentration and attention problems
- Bedwetting long after potty training
- Short term memory issues
- Fidgeting and wiggly "ants in the pants"
- Posture problems
- Hip rotation on one side/possibly scoliosis
- Chronic digestion problems
- Even if they don't display any of these symptoms, it is a good idea to do the quick test, as there may be other functions that are affected by it that are still unknown.

Spinal Galant Test

Have the child get down on their hands and knees like a "kitty". At the lower part of their back, stroke down one side of the spine, then the other.

If the child's muscles on the same side tighten, twitch or jerk, the reflex is most likely still present. This is not caused by being ticklish. A ticklish child will react if their sides are touched not the side of their spine.

Retained Spinal Galant



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Do this to both sides. If either side twitches, *exercises are recommended!*

Symmetrical Tonic Neck Reflex (STNR)

Symmetrical Tonic Neck Reflex (STNR)

Contributes to hyper activity,
Low muscle tone and more.



The Symmetrical Tonic Neck Reflex is present at birth, then disappears until about 6 months. It reappears for a few months to assist in learning to crawl.

You will notice it in a baby if you move their chin down toward their chest. The knees will bend. If you move the head up toward their back, the legs will straighten. Do not confuse this with the Landau Reflex. They are two separate reflexes.

If this does not integrate and disappear by about 11 months, it can cause motor learning and behavior disorders. Simple exercises can solve the problem.

Retained Symmetrical Tonic Neck Reflex Symptoms

- Poor posture
- Low muscle tone
- Ape-like walk
- Vision and tracking problems
- Difficulty learning to swim

- ADD
- ADHD
- Hyper activity or fidgety
- Poor hand eye coordination
- Problems looking between near and far sighted objects, like copying from a chalkboard
- Sloppy eater
- Even if they don't display any of these symptoms, it is a good idea to do the quick test on them, as there may be other functions that are affected by it that are still unknown.

“A child’s life is like a piece of paper on which every person leaves a mark.”

-Robert Heinlein

Symmetrical Tonic Neck Reflex Test

Have the child get down on their hands and knees, with neck straight and their body slightly forward enough to put weight over their hands. Now ask the child to lower their head bringing the chin toward the chest for 7 seconds, then raise their head up toward their back for another 7 seconds. Have them move their head up and down this way several times while observing.

Symmetrical Tonic Neck Reflex Exercise



Look For:

- Back twitching.
- Back trying to arch up when head is moving up.
- Arms bending or body weight shifting back toward their legs when head goes up.

If any of these occur the reflex is most likely still present.



Retained Tonic Labyrinthine Reflex

Tonic Labyrinthine Reflex Exercises

Helps with posture, learning, speech disabilities and more.



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Tonic Labyrinthine Reflex (TLR) is the foundation for head control. Baby needs it to roll, crawl, and later stand and walk. This reflex is one that goes past the first year of life. It is usually integrated by 3 ½

years. If not, it can cause problems.

When a baby is laying back and the head is tilted back, the baby will stiffen the legs, bend elbows, make fists or curled fingers and the toes will point. This is normal for an infant. As the baby matures, starts to walk and gains control over the large muscles, the Tonic Labyrinthine Reflex will integrate and disappear.

If the Tonic Labyrinthine Reflex does not integrate, it interferes with other neurological connections. It may contribute to the following.

Retained Tonic Labyrinthine Reflex Symptoms

- Poor balance
- Muscle tone issues
- Poor posture
- Difficulty paying attention when head is down (at a desk or reading)
- Dyspraxia
- Poor sense of rhythm
- Gets motion sickness easily
- Prefers to walk on toes
- Speech and auditory difficulty
- Spatial issues
- Bumps into things and people more than normal

"THERE IS NO GREATER
DISABILITY IN SOCIETY,
THAN THE INABILITY
TO SEE A PERSON
AS MORE."

-ROBERT M. HENSEL

Retained Tonic Labyrinthine Test

This is similar to the Landau Reflex Exercise, except with **feet up**. Have the child lie on their stomach with arms down to the side and legs straight. Have the child raise his head, legs, and arms off the floor while keeping arms and legs straight.



If they cannot keep both legs straight and hands up, the reflex is most likely still present. *Exercises Recommended!*

Retained Primitive Reflex Symptoms



While there is no exact set of disabilities and challenges that are attributed to each Primitive Reflex, this is a list of the ones found most often when the individual reflexes are present, and the ones that show the most improvement when the reflex is integrated.

A check mark under any of the Primitive Reflex lists indicates a need to integrate that Reflex. However we recommend working on all. Oftentimes, if a child hasn't integrated one Reflex, others may be present but less noticeable.

Refer to our video course to see the simple at home exercises to integrate these reflexes:

*Make a Difference
with
Primitive Reflex Exercises*

Asymmetrical Tonic Neck Reflex (ATNR)

- Hand-eye coordination problems
- Awkward walk or gait
- Difficulty in school
- Immature handwriting
- Difficulty in sports
- Math and reading issues
- Poor balance
- Eye, ear, foot and hand dominance will not be on the same side
- Poor depth perception
- Shoulder, neck, and hip problems
- Tension down the neck, back, and hips
- Difficulty in things that require crossing over the midline of the body

Landau Reflex

- Low muscle tone
- Poor posture
- Poor motor development
- Short Term Memory difficulty
- Tension in the back of the legs, walks on toes
- Lack of stimulation in the pre-frontal cortex causing attention, organization and concentration problems
- Weak upper body
- Difficulty swimming the breast stroke
- Struggles to do a summersault, knees buckle when head turns under
- May prevent the Spinal Galant Reflex from integrating
- Difficulty coordinating body movements that use the upper and lower part of the body together
- The low muscle tone in the neck can inhibit proper stimulation to the pre-frontal cortex, causing attention problems.
- ADD and ADHD

Moro Reflex

- Easily distracted
- Hypersensitive to sensory stimuli like light, sound and touch
- Over sensitivity to motion causing car sickness
- Overreacts
- Impulsive and aggressive
- Emotional immaturity
- Withdrawn
- ADD
- ADHD
- Autism Spectrum
- Asperger's
- Difficulty making friends
- Depression
- Anger or emotional outbursts
- Poor balance and coordination
- Poor digestion and food sensitivities
- Health issues such as Allergies, Asthma, and Adrenal Fatigue

Palmar Reflex

- Poor handwriting
- Poor pencil grip
- Poor fine muscle control
- Poor dexterity
- Poor fine motor skills
- Poor vision coordination
- Slumpy posture when using hands
- Back aches when sitting
- Sticks tongue out when using hands
- Poor pencil grip
- Poor ability to put thoughts to paper
- Dysgraphia
- Speech and language problems
- Anger control issues

Rooting Reflex

- Tongue lies too far forward
- Hyper sensitive around mouth
- Difficulty with textures and solid foods
- Thumb sucking
- Speech and articulation problems
- Difficulty swallowing and chewing
- Dribbling
- Hormone imbalance
- Thyroid problems and autoimmune tendency
- Dexterity problems when talking
- Overeats

Spinal Galant Reflex

- Hyper activity and restlessness, especially if clothes or chair brush their back
- If active down only one side of the body, can cause scoliosis, rotates pelvis, and lower back pain
- Poor concentration
- Attention problems
- Bedwetting long after potty training
- Short term memory issues
- Fidgeting and wiggly “ants in the pants”
- Posture problems
- Hip rotation on one side
- Low endurance
- Chronic digestion problems
- Tension in the legs
- Lower body clumsiness

Symmetrical Tonic Neck Reflex (STNR)

- Poor posture standing
- Sits with slumpy posture
- Low muscle tone
- Ape-like walk
- Problems with attention especially in stressful situations
- Vision accommodation and tracking problems
- Difficulty learning to swim
- Difficulty reading
- Usually skips crawling as an infant
- Sits with legs in a W position
- ADD
- ADHD
- Hyper activity or fidgety
- Poor hand eye coordination
- Problems looking between near and far sighted objects, like copying from a chalkboard
- Sloppy eaters
- Rotates pelvis

Tonic Labyrinthine Reflex (TLR)

- Poor balance and spatial awareness
- Tense muscles down the back of the body
- Toe walker
- Over flexible joints and weak muscles
- Difficulty holding still and concentrating
- Poor posture and weak neck
- Difficulty paying attention, especially when head is down (at a desk or reading)
- Poor sense of rhythm
- Gets motion sickness easily
- Speech problems due to forward tongue
- Spatial issues
- Bumps into things and people more than normal
- Tends to cross eyes
- Difficulty climbing up things
- Causes inefficient stimulation to the pre frontal cortex
- Usually active in kids with ADD and ADHD
- Holds head forward or to the side
- Problems with balance when looking up or down