

# Parent Resource Guide



# Parent Resource Guide

As a parent, you've probably found that the information available that might help you with your child is sparse and the information that is available tends to lean towards management of your child's issues, rather than resolving them.

The truth is that the methods used to diagnose and treat neurodiversity haven't changed in more than sixty-five years, despite the volume of research that has been done on the brain. Fortunately, there are many centers like NeuroFiT Connections around the world populated with experts who have been trained by Dr. Robert Melillo, the world's leading neuroscientist specializing in neurodiversity.

This guide aims to provide you with information you can use today to help you understand your child and make changes that can help them.

## HOW OUR BRAIN DEVELOPS

There is a specific progression in the development of the brain and nervous system, which is tied to motor and other developmental milestones.

### Our Operating System

We are all born with a basic "operating system" in our brain and nervous system, enabling us to walk, talk, think, eat and so on. Though we are born with this basic software, it does not mean anything until we interact with and calibrate our nervous system to the world around us. What initiates this process is movement and active sensing of our world.

However, when a baby is first born, its brain is very immature as most human brain development happens outside of the womb. In other words, our motor cortex is not yet developed, and we cannot voluntarily control movement — but we need to move to build our brain.

### Primitive Reflexes

Humans are born with basic motor and sensory reflexes known as primitive reflexes, allowing us to move and actively sense and engage with the world around us.

### About NeuroFiT Connections

NeuroFiT Connections uses the techniques created by Dr. Robert Melillo, the world's leading neuroscientist specializing in Autism, ADHD, Dyslexia, and other social, emotional, behavioral, and academic issues. The methods we use are backed by the latest science and research, supported by most prominent neurological institutes in the world such as Harvard University, McLean Hospital, University of Cambridge.

Our mission is to create a bright future for parents and their children who struggle with social, emotional, behavioral, and academic issues by resolving those issues and changing the trajectory of the child's life.

We believe that every child has the potential to do great things, to be magnificent, and to shine. We see our role as clearing the path on their road to success. We do that by correcting the root cause of their disorder so they can become the people they were meant to be.

# Parent Resource Guide

Sensory stimulation — like sound, smell, light, touch, and movement — then flows back toward the brainstem and brain. The process activates genes that stimulate the cells in the nervous system to grow and form new connections with other brain cells. Mostly present at birth or even before, these motor sensory reflexes hold names like:

- ✓ Asymmetric tonic neck reflex (ATNR).
- ✓ Babinski reflex.
- ✓ Moro reflex.
- ✓ Palmer grasp reflex.
- ✓ Rooting reflex.
- ✓ Snout reflex.
- ✓ Spinal Galant reflex.
- ✓ Symmetric tonic neck reflex (STNR).
- ✓ Tonic labyrinthine reflex (TLR).

Research shows that these reflexes are a key target treatment area, one where we can reverse and improve developmental delays. If we do not fully integrate these reflexes, it will directly impact how quickly and effectively we can change the brain and behavior.

## HOW OUR BRAINS WORK

The brain is built from the bottom up, starting in the lower brainstem — the medulla. It initially controls basic functions like breathing, heart rate, digestion, and temperature regulation. As a child moves and interacts with the world, it stimulates growth in a higher level of the brainstem known as the pons, releasing new reflexes that allow for more sophisticated movement. This, in turn, allows the child to engage with the world around them in more active, stimulating ways, causing areas of the brain to grow. This process continues up the brainstem into the cortex, leading to growth and maturity of the brain — particularly in the prefrontal cortex, the brain's most complex and developed area.

When this process is completed, it's known as bottom-up completion. The next step is top-down control, where the brain takes control of the entire brainstem, regulating everything in the body including the cardiovascular, immune, digestive, hormone, and

## EXAMPLE

### Attention Deficit Hyperactivity Disorder (ADHD)

In ADHD, hyperactivity results from overactive areas in the left hemisphere of the brain, resulting in too much motor activity, tics or stims. Attention deficit stems from underactivity in the same area on the right hemisphere, which is responsible for the poor sustained attention.

The answer? To inhibit the left side of the brain and activate the right side.

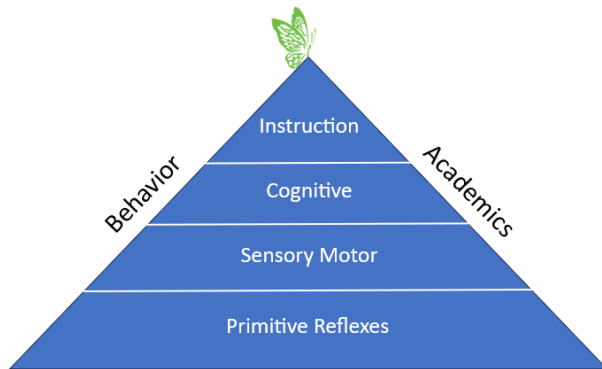
To accomplish this, we must also integrate the primitive reflexes and build balance and stability in the body, starting with the large muscles along the spine. As our bodies develop, initial spinal movements allow us to roll over, crawl and eventually stand upright. Next, we build our inner-ear vestibular balance system, which allows us to walk and maintain balance. Finally, our eye motor system enables us to move our eyes and keep them stable as we walk and move.

An imbalance in these systems means there will be an imbalance in the nervous system and brain. Generally, this is known as nerve interference but in the brain, it's called functional disconnection.

# Parent Resource Guide

muscle and sensory processing systems. This development is known as vertical integration.

The brain's right hemisphere is more active in the womb and for the first three years of life, whereas the left becomes more active for the following three years. As the brain matures, the hemispheres conduct different functions. At times, they will work together and in others, one will take the lead and suppress interference from the other. Over time, they become more integrated and synchronized in a process called horizontal integration.



Where growth breaks down

If anything interferes with vertical or horizontal integration, it affects the functioning of the whole body and brain, known as bottom-up interference and functional disconnection — which we believe are the foundation of all child and adult neurological conditions and symptoms.

## Functional Disconnection

When the development of certain areas is slowed on one side of the brain, it may lead to an acceleration in other areas. In most people, the strengths outweigh the weaknesses — but in a developing brain, the weakness may be too great, or the strong side of the brain may overpower the weak. This developmental imbalance results in a disability that may be combined with unusual gifts.

## TREATING FUNCTIONAL DISCONNECTION

### The Problem

As mentioned earlier, when it comes to any developmental delay, the core problem is a disconnect between the left and right hemispheres of the brain. Essentially, one hemisphere is underactive and the other overactive. Research has shown that this imbalance is caused by retained primitive or infant reflexes.

### The Solution

There are three components to creating new neuropathways and correcting the root cause of Functional Disconnection: primitive reflex integration, core stabilization, and hemispheric stimulation.

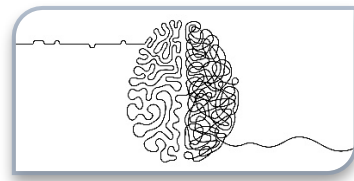
#### PRIMITIVE REFLEX INTEGRATION



#### CORE STABILIZATION



#### HEMISPHERIC STIMULATION





# Parent Resource Guide

## Primitive Reflex Integration

Primitive reflexes are ingrained reflexes that we are born with. They assist us in growing from infants in the womb to toddlers and beyond. According to Wikipedia, there are thirteen primitive reflexes, though we are aware of at least two they did not list.

Primitive reflexes originate in the brainstem (the bottom stalk-like portion of the brain where the cerebrum connects with the spinal cord). These reflexes are suppressed by the development of the frontal lobes as a child develops. These primitive reflexes are also called infantile, infant, or newborn reflexes.

There is no one cause for retention of primitive reflexes, nor is there a specific reason why they may reappear, though usually there is some trauma involved before, during or after birth. Research shows that retained primitive reflexes are a major factor in developmental delays.

When testing children for retained primitive reflexes, it appears that 65 to 70 percent of them had one or more retained primitive reflexes holding them back from reaching their full potential. By integrating the retained primitive reflexes, we clear the path to creating new neuropathways by maturing the brain.

## Core Stabilization

Growing up, most of us spent a great deal of time outside playing. We rode our bikes everywhere, spent very little time indoors watching television and couldn't imagine carrying around the little computers we call cell phones. Today, children spend more time on devices and much less time exercising. In fact, according to The American Academy of Child and Adolescent Psychiatry, on average, children ages 8-12 in the United States spend 4-6 hours a day watching or using screens, and teens spend up to 9 hours per day. Research shows that all this screen time depletes the right hemisphere of the brain leading to an increase in Autism, ADD, ADHD, and other developmental delays. Unfortunately, all this screen time means less time moving and the more you move your body, the more your brain grows.

### **Increase Movement & Activity**

Movements that get your child using their core strength and large muscle groups can help reduce the negative behavior you see in your child. For example, have your child walk on uneven surfaces, use a balance beam, or do some core exercises such as planks or sit ups. Climbing and jumping can also be a great way to increase movement in the right ways.

Get a balance beam from our store:

<https://neurofitconnections.com/product/foam-balance-beam>

# Parent Resource Guide

## Hemispheric Stimulation

### **Focus on Weakness not Strength**

Focusing on a child's strengths will stimulate the overdeveloped hemisphere causing the divide between the left and right hemispheres to increase, exacerbating the behavioral issues you already see.

Instead, do nothing or focus on your child's weaknesses to strengthen the weaker hemisphere.

The primary issue in people with developmental delays is related to the development of the hemispheres of the brain. Specifically, one hemisphere has developed more neuropathways than the other and the two hemispheres are not communicating appropriately. In growing children, parents and educators tend to exacerbate the problem by providing more stimulation of the hemisphere that is more developed.

## DIET, NUTRITION & SUPPLEMENTS

With every child, we assess and address specific diet, nutritional and supplemental needs, all of which play a role in your treatment plan. Our perspective is that most nutritional deficiencies or needs are secondary to the imbalance in the nervous system, so our focus remains on addressing physical and neurological imbalances. In working with developmental issues, we want to stimulate growth in the body, brain, and nervous system. The brain and muscles use most of the body's calories. Based on our experience, once we establish balance in the nervous system, you can return to eating whatever you wish (healthy foods, of course!).

### Eliminating the Wrong Foods

Sugars, dyes, processed foods, gluten, and additives have an inflammatory aspect and will not only impact your child's gut, but they will also impact their brain causing negative behaviors such as hyperactivity, brain fog, the inability to focus or concentrate and much more. Immediately remove them from your child's, and perhaps your whole family's diet.

Other foods that may cause issues include:

- ✓ Apples
- ✓ Dairy and milk products (including goat milk)
- ✓ Tomato
- ✓ Corn
- ✓ All citrus fruits and juices
- ✓ Eggs
- ✓ Legumes
- ✓ Baker's and brewer's yeast
- ✓ Soy

### **Beware!**

Sugar, dyes and additives are in nearly every food on the shelves in the supermarket. Unfortunately, just reading the labels might not be enough. For a variety of reasons, food manufacturers frequently employ the tactic of concealing ingredient names. By doing so, they can give the impression of a cleaner and healthier product.

For example, sugar might also be known as high-fructose corn syrup, dextrose, evaporated cane juice, fruit juice concentrate, or something else.

Follow the link below to discover a complete list of hidden names for common ingredients:

<https://meetnfc.com/HiddenNames>

# Parent Resource Guide

## Sugar and Artificial Sweeteners

A no-sugar diet means avoiding all forms of sugar including corn syrup, fructose, dextrose, honey, and maple syrup. Sugar can cause severe behavior problems in children with developmental delays but taking a child off sugar cold turkey can make the symptoms come back in a few days worse than ever. This, however, is really a sign of withdrawal and the symptoms will again subside in another few days. Even if you find that your child is not sensitive to sugar, you should limit it anyway as you move forward. Sugary foods simply are not good nutrition, as they are usually low in important essential nutrients. Just make sure any sugary food you are feeding your child does not contain artificial coloring and flavoring and trans fats, which you can identify by the words hydrogenated or partially hydrogenated on labels. Your best bet is to make your own sweet treats from scratch. Better yet, offer fresh fruit for dessert or snacks.

These foods may not necessarily be an issue, so it's best to remove them all for a few weeks, then reintroduce them one at a time for a period of two weeks. If there is no noticeable change in behavior, you can continue to provide them to your child.

## Eating the Right Foods

Once you have removed all the foods causing a fluctuation in your child's behavior, it is important to introduce and increase the right foods into their diet. Start with organic foods, proteins, fruits (avoiding those listed earlier if they cause problems), and vegetables.

If you have the time, it's best to cook at home rather than getting food from restaurants or the grocery store. At home you can use natural, wholesome ingredients that can improve your child's brain function.

## Supplements

Vitamins and minerals are necessary for your child's well-being. Their body needs a certain amount of each of the essential nutrients to function optimally. Normally, your child will get many of the vitamins and minerals they need from

the foods they eat. Unfortunately, there are likely several factors that are impacting their ability to absorb the nutrients they need including retained primitive reflexes and poor diet. As you clean up their eating habits, their body's ability to absorb and process nutrients will improve. In the meantime, we recommend that you provide your child with supplements to help improve their health. Start with a pre-biotic and pro-biotic to aid in digestion and absorption of nutrients. You might also add Omega 3 and Vitamin D.

## Supplements made Specifically for Children

You can order supplements from the NeuroFiT Connections store that are specifically formulated for developing minds:

Prebiotic/Probiotic: <https://neurofitconnections.com/product/kidgenius-all-natural-prebiotic-and-probiotic>

Vitamin D: <https://neurofitconnections.com/product/trugenius-vitamin-d3-for-children-adults/>

Omega 3: <https://neurofitconnections.com/product/kidgenius-omega-3-liquid-for-kids/>

Left Brain: <https://neurofitconnections.com/product/kidgenius-learning-memory-concentration-left-brain/>

Right Brain: <https://neurofitconnections.com/product/kidgenius-attention-focus-calm-right-brain/>

If you know the hemisphere of the brain that's weaker, you can also order supplements specific to that hemisphere. For reference, disorders such as Autism and ADHD are right brain weaknesses, where learning disabilities such as dyslexia and dyscalculia are left brain weaknesses.

# Parent Resource Guide

## GETTING A GOOD NIGHT'S SLEEP

Children, especially those twelve and under, require ten hours of regular sleep a day. In our teens, we require at least nine hours of regular sleep each day. This means that children must go to bed at the same time and wake up at the same time every day, which is much easier said than done.

There are several keys to ensuring a good night's sleep, some obvious and some not so obvious. They involve light, eating habits, and regularity. Following the recommendations below will ensure that your child gets a good night's sleep every night.

Start with lots of daytime sunshine. Sunlight during the day, even on a cloudy day, can help wake your child up and get them going. It tells their internal clock that it's time to wake up and begin the day. Make sure your child starts their day with sunlight, or at least bright light and spends a couple of hours outside each day.

End with darkness. Start winding down for bed three or four hours before bedtime. Ideally, your child should not spend time in front of the television or on the computer, tablet, or mobile phone two to three hours before bed. Dim the lights or, if your youngster must do homework before bed, create task specific lighting or lighting that shines on the work they are doing instead of illuminating the entire room. This also means that the room should be dark when they are sleeping or, if that's not possible, be low and non-blue light.

Setting a regular schedule for waking, sleeping, and eating will help. This is especially true for left-brain strong kids as they love routine and consistency. What this means for you is that you must make sure they get up at the same time every day, eat breakfast, lunch, and dinner at the same time every day, and go to bed at the same time every day. In fact, it would be best if you limit their eating to a ten-to-twelve-hour window that ends three to four hours before bedtime.

In addition to a regular schedule, don't eat or drink anything except water outside of the normal eating window. Eating on a regular schedule in addition to the proper diet will help with digestion and gut health more than just the proper diet alone. In addition, because the body will be doing what it is supposed to do when it is supposed to do it, sleep will come easily and will be restful.

## RIGHT BRAIN WEAKNESS

A right brain deficit or weakness indicates that the left hemisphere of the brain is overactive, and the right hemisphere is underactive. Essentially, the two hemispheres are not working together and the right hemisphere, the stopping, is not doing its job. We see this in children with ADHD Types 2 and 3, all levels of Autism Spectrum Disorder, Anxiety, OCD and other similar disorders.

Some of the signs of a right brain weakness include:

- ✓ Hyperactivity
- ✓ Poor motor skills



# Parent Resource Guide

- ✓ Awkward/Clumsy
- ✓ Poor attention & focus
- ✓ Impulsivity
- ✓ Unable to control emotions
- ✓ Poor non-verbal communication
- ✓ Immature social behavior
- ✓ Misses the big picture
- ✓ Poor eye contact
- ✓ Space invader

## LEFT BRAIN WEAKNESS

A left-brain deficit is the opposite of a right brain deficit, indicating that the right hemisphere of the brain is overactive and the left underactive.

- 
- Poor Math Skills
  - Poor Verbal Skills
  - Poor Spelling Skills
  - Poor Reading Skills
  - Fine Motor Problems
  - Poor Letter Recognition
  - Poor Auditory Processing
  - Weak Immune Response
  - Poor Memory for Details
  - Misses Small Details
  - Poor Self Esteem
  - Poor Motivation
  - Task Avoidance

As in a right brain weakness, the two hemispheres are not working together. In this case the left hemisphere, the logic, processing, and go, go, go, is the one that is not working properly. We see this in children with ADHD Type 1, Dyslexia, Dyscalculia, Dysgraphia, and other language, processing, or learning disorders.

Some of the signs of a left-brain weakness include:

- ✓ Poor academic skills,
- ✓ Fine motor problems
- ✓ Poor auditory processing
- ✓ Poor memory for details
- ✓ Poor self esteem
- ✓ Poor motivation
- ✓ Task avoidance
- ✓ Misses small details
- ✓ Poor motivation

- 
- Awkward/Clumsy
  - Hyperactive/Anxious
  - Poor Non-Verbal Skills
  - Impulsive/Lacks Focus
  - Lacks Emotional Control
  - Poor Reading Comprehension
  - Obsessive/Repetitive Behavior
  - Immature Social Behavior
  - Allergies/Autoimmunity
  - Lacks Interest in Sports
  - Misses the Big Picture
  - Poor Eye Contact
  - Space Invader

## MOBILE PHONES, TABLETS, COMPUTERS

All too often, we see children occupied with a tablet or cell phone, staring into the screen as they play a game or watch something. They are disengaged from the people around them. As you might guess, this doesn't help their development at all.

In general, devices such as mobile phones, tablets, and computers deplete the right brain and should be avoided. Video games are especially harmful as the reward system built into the game provides a dopamine hit that keeps children (and adults) engaged, but also creates unrealistic expectations of life. We recommend no more than an hour a day if they must be used. Outdoor play, coloring, board games, engaging with those nearby, and other activities are preferable to playing on a device.

# Parent Resource Guide

Educational games are a mixed bag because, while they provide some value, they may stimulate the wrong hemisphere and, as mentioned above, they tend to provide the dopamine hit that creates unrealistic expectations. Keeping device usage, for any reason, to one hour per day is best if it can be managed.

## GAMES

There are certain games that we recommend that are fun, engaging, and promote brain health as they occupy many different skill sets. Here are a few:

- ✓ **Spot-It! (also known as Dobble)** is a fast-paced card game where players compete to find matching symbols between two or more cards. The deck contains 55 round cards, each featuring 8 different symbols. The objective is to be the first player to identify and point out the one matching symbol between any two cards.
- ✓ **Bop It** is a handheld toy that asks the player to perform specific actions. By following a series of commands issued through voice recordings, the player will progress through the multiple inputs including pressable buttons, pull handles, twisting cranks, spinnable wheels, and flickable switches. As the player progresses, the pace of the game increases.
- ✓ **Twister** is a game of physical skill played on a large plastic mat that is spread on the floor or ground. The mat has four rows of six large colored circles on it with a different color in each row: red, yellow, green and blue. A spinner tells players where they have to place their hand or foot. The game promotes itself as "the game that ties you up in knots".
- ✓ **Simon Says**, an old classic, is perfect for improving listening skills for children, and can also be used to improve hemispheric communication. For example, start with your child standing tall, then lead them through different gross motor movements such as 'Simon says touch your right hand to your left knee', 'Simon says do 3 jumping jacks', 'Simon says reach your hands over your head and then lean to the left', etc. This is an activity the whole family can enjoy!

### Recommended Games

You can find the games we recommend in our online store:

<https://neurofitconnections.com/product-category/games/>

## MUSIC

The qualities that make one piece of music different from another are processed by different sides of the brain. While there is a tremendous amount of research documenting what types of music and which frequencies affect the brain, there is nothing available in stores designed for specific hemispheres of the brain.

Classical and New Age music can assist in both calming your child and stimulating their brains. Just have some relaxing music in the background as they play, study, and work. Ideally, for children with a right brain weakness, the music should be at 54 beats per minute. For left brain weakness, 120 beats per minute is perfect.

# Parent Resource Guide

Here are a few examples of Right Brain music:

- ✓ "Marche Militaire" by Franz Schubert
- ✓ "At the Edge" by Mickey Hart
- ✓ "Capriccio Espagnol" by Nickolay Rimsky-Korsakov
- ✓ "Jupiter" from *The Planets* by Gustav Holst
- ✓ "Arabesque" by Robert Schumann
- ✓ "Lemurian Sunrise" by Paul Lloyd Warner
- ✓ "Clair de Lune" by Claude Debussy
- ✓ "Pan Flute" by La Mir

Left brain music has a faster tempo:

- ✓ "Ave Maria" by Franz Shubert
- ✓ "Divine Gypsy" by Paramahansa Yogananda
- ✓ "Adagio" from *Symphony No. 1 in C Minor* by Johannes Brahms
- ✓ "Angel Love" by Aeolia
- ✓ "Piano Concerto in B Minor" by Pyotr Tchaikovsky
- ✓ "Neptune" from *The Planets* by Gustav Holst

## SENSORY ACTIVITIES

Children with a hemispheric imbalance tend to have issues with interoception and proprioception, meaning they have trouble feeling their bodies. Sensory specific activities can help with that. If you can modify an activity to target the specific weaker hemisphere, it can have a tremendous impact on your child's growth.

Here are just a few examples:

- ✓ Do you remember the feeling of the grass beneath your feet? Let your kids feel it too. For kids with a left-brain weakness, leave the left sock on and for right brain weakness, leave the right sock on. The other foot will, of course, be barefoot.
- ✓ While you're outside, make sure your kids walk (or run) on uneven surfaces. You might create that with flat rocks, bricks, or foam blocks. Of course, make sure it's safe. Depending on the age and ability of your child, you might hold their hand.
- ✓ For indoor play, you might fill a bin about halfway with dirt or sand, then dump a few toy cars or trucks in and let them play.
- ✓ If you let your child play on a device, watch TV, or sit and color or draw, you might get a vibration plate for them to rest their feet on while they take part in the activity. A vibe plate is a device to provide gentle whole-body vibrations, waking muscles throughout

### An Agility Ladder?

An agility ladder can provide hours of indoor and outdoor fun, sensory, physical, and cognitive stimulation.

In bare foot and sock, you're your child make their way through the ladder. Have them switch between the alphabet and arithmetic as they go from rung to run, using the colored cones to indicate what to do.

Get the agility ladder here:

<https://neurofitconnections.com/product/agility-ladder>

# Parent Resource Guide

the body and increasing blood flow in the muscles.

## Vibration Plate

When your child sets their feet on the vibration plate and you turn it on, it will send vibrations up their body. Depending on their sensitivity, they may ask you to turn it up all the way. Add hemispheric stimulation by having the appropriate foot bare.

Get the Vibe Plate here:

<https://neurofitconnections.com/product/vibration-plate>

## Primitive Reflexes

As mentioned earlier, research indicates that the root cause of hemispheric imbalances is retained primitive reflexes. The list below is the primitive reflexes that we've discovered have the biggest impact on your child's development. The list includes the symptoms of the reflex and the long-term effects of the reflex if it is not integrated.

### Asymmetrical Tonic Neck Reflex (ATNR)

**Integrates by 6 months of age**

#### Purpose:

This reflex works muscles, prepares the baby to roll, starts the independent coordination of right and left sides of the body, and helps to develop eye tracking, hand-eye coordination and the ability to cross the midline of the body.

#### Symptoms:

- Difficulty with reading and writing
- Struggles with learning to ride a bike
- Difficulty crossing the midline of the body
- Poor visual tracking
- Poor hand-eye coordination
- Poor balance and whole-body coordination

#### Long Term Effects:

- Upright balance issues
- Trouble with normal cross-pattern movements (e.g., walking, marching, skipping, etc.)
- Poor ocular pursuit movements
- Mixed laterality (e.g., switching hand used for writing, or batting a ball)
- Poor handwriting, reluctance to write, poor expression of ideas on paper.
- Visual-perceptual difficulties, particularly in symmetrical representations of figures

# Parent Resource Guide

## Babinski Reflex

**Integrates by 24 months of age**

Purpose:

This reflex is primarily responsible for motor control in the body and limbs.

Symptoms:

- Weakness in a limb
- Poor coordination
- Loss of sensation in a body part
- Poor posture
- Low muscle tone
- Ape-like walk
- Problems with attention, vision, reading, or swimming
- Difficulty with muscle control

Long Term Effects:

- Difficulties judging space, speed, depth, and distance.
- Toe walking
- Discoordination in simultaneous movements, such as walking or swimming.
- Avoiding lying on their stomach.
- Decreased gross and fine motor coordination
- poor balance
- decreased stability

## Moro Reflex

**Integrates by 4 months of age**

Purpose:

Part of the sympathetic nervous system and our freeze, fight or flight response to stimuli and stress. Helps to protect the baby by communicating the need for comfort and support.

Symptoms:

- Unable to focus on one thing at a time, easily distracted
- Poor impulse control
- Emotional immaturity and/or reactivity
- Withdrawn or timid
- Aggressive, anxious, and/or highly excitable
- Difficulty playing ball games

Long Term Effects:

- Vestibular related problems such as motion sickness, poor balance and coordination, particularly seen during ball games
- Physical timidity
- Oculo-motor and visual-perceptual problems (e.g., cannot ignore irrelevant visual material within a given field)
- Difficulty processing information in environments presenting multi-sensory stimuli
- Poor pupillary reaction to light. Photosensitivity. Difficulty with black print on white paper and easy tiring under florescent lighting
- Auditory confusion resulting from hypersensitivity to specific sounds, including poor auditory discrimination and have shutting out background noise.
- Poor regulation of stamina.
- Dislike of change or poor adaptability to surprises.
- Free-floating anxiety or angst (continuous anxiety seemingly unrelated to reality).
- Over reactivity
- Irritability
- Frustration leading to mood swings and labile emotions
- Tense muscle tone (body armoring)
- Difficulty accepting criticism
- Cycle of hyperactivity followed by excessive fatigue
- Difficulty making decisions
- Weak ego, low self-esteem
- Insecurity/dependency
- Need to control or manipulate events



# Parent Resource Guide

## Palmar Reflex

**Integrates by 3 months of age**

Purpose:

Sensory and motor response that is essential for developing fine motor skills and enhancing the ability to recognize an object only by touch.

Symptoms:

- Poor manual dexterity
- Poor pencil grip
- Difficulty writing
- Fatigue with writing and typing
- Intertwined speech and hand movement

Long Term Effects:

- Interference with independent thumb and finger movements
- Lack of a pincer grip, which will affect pencil grip when writing
- Speech difficulties

## Rooting Reflex

**Integrates by 4 months of age**

Purpose:

Sensory and motor response that acts as a catalyst for oral fine motor development necessary for sucking, swallowing, eating and speaking.

Symptoms:

- Poor articulation and speech issues
- Tactile sensitivity around the face
- Messy eater
- Poor manual dexterity and fine motor skills
- Picky or selective eating
- Chewing on fingernails, clothing, pens, etc.

Long Term Effects:

- Hypersensitivity around lips and mouth
- Tongue may remain too far forward in mouth, which makes it difficult to swallow and chew certain foods
- Speech and articulations problems
- Poor manual dexterity

## Snout Reflex

**Integrates by 4 months of age**

Purpose:

Sensory and motor response that acts as a catalyst for oral fine motor development necessary for sucking, swallowing, eating and speaking.

Symptoms:

- Blurred or tunnel vision
- Cold and clammy skin
- Dizziness
- Fainting
- Feeling warm
- Lightheadedness
- Nausea
- Ringing in ears

Long Term Effects:

- Hypersensitivity around lips and mouth
- Tongue may remain too far forward in mouth, which makes it difficult to swallow and chew certain foods
- Speech and articulations problems
- Poor manual dexterity

## Spinal Galant Reflex

**Integrates by 9 months of age**

Purpose:

This reflex in utero is thought to cause the bladder to release. It also facilitates hip range of motion necessary for birth, rolling over, crawling, and walking.

Symptoms:

- Inability to sit still, excessive fidgeting
- Poor concentration
- Poor posture
- Chronic digestive issues
- Bed wetting beyond the age of 5 years old
- Possible scoliosis
- Challenges with focus
- Mental fatigue

Long Term Effects:

- Susceptible to scoliosis and other spinal abnormalities
- Poor short-term memory
- Difficulty with leg control while walking and running
- Hypersensitivity to tactile stimulation
- Poor performance in school or at work

## Symmetrical Tonic Neck Reflex (STNR)

**Integrates by 11 months of age**

# Parent Resource Guide

## Purpose:

This reflex works muscles and helps a baby learn to use the top and bottom of the body separately. It also prepares a baby to crawl and helps develop near and far visual focus and hand-eye coordination

## Symptoms:

- Difficulty with reading
- Struggles with writing, copying and typing
- Poor posture, slumps in chair
- Weak visual convergence abilities
- Poor balance and whole-body coordination
- May sit in a "W" position.
- Simian walk
- Poor hand-eye coordination.
- Messy eater and/or clumsy
- Poor upper arm strength
- Problems keeping the back straight
- Feet wrapped around chair leg

## Long Term Effects:

- Difficulties in concentrating
- Difficulties with auditory processing
- Coordination issues

## Tonic Labyrinthine Reflex (TLR)

## Integrates by 4 months of age

## Purpose:

This reflex works various muscles, prepares the baby for head and neck control, and helps develop balance and body awareness necessary for visual motor integration and coordination.

## Symptoms:

- Poor posture & balance
- Motion Sickness
- Persistent Toe Walking
- Poor sense of rhythm and timing
- Struggles to understand personal space
- Low or weak muscle tone.

## Long Term Effects:

- Poor posture and a tendency to walk on toes
- Poor balance and coordination
- Hypertonus – stiff, jerky movements because the extensor muscles exert greater influence than the flexor muscles.
- Vestibular-related problems (e.g., poor sense of balance, tendency toward motion sickness.)
- Oculo-motor dysfunction (e.g., visual-perceptual difficulties, spatial perception problems.)
- Poor sequencing skills.
- Poor organizational skills.
- Dislike of sporting activities, physical education classes, running, etc.
- Poor sense of time.

## Primitive Reflex Exercises

Primitive reflexes are integrated through use. For example, Spinal Galant is present to help a baby wiggle out of the birth canal. If your child was born via c-section (which is becoming more and more common), they likely still have Spinal Galant.

Some of the exercises for primitive reflexes are difficult to describe and may be challenging to perform. As a result, the list below only contains a few of the exercises. When you enroll your child in their custom NeuroFiT Connections program, we will teach you how to do the specific exercises for each reflex and will, periodically, switch them up to more difficult and challenging activities so your child doesn't get bored.

# Parent Resource Guide

<i>Babinski Reflex</i> <i>Exercise: Ball roll</i>	Roll tennis ball or run the stem of a paintbrush on bottom outside of foot.
<i>Rooting and Sucking Reflex</i> <i>Exercise</i>	Suck on a straw or suck and blow lips or use a paintbrush to brush from the cheek to the lips, then across the lips.
<i>Snout Reflex</i> <i>Stimulation only</i>	Press on philtrum (space between the nose and upper lip) 10 times, 2-3 times a day.
<i>Palmar Grasp Reflex</i> <i>Exercise: Ball squeeze</i>	Squeeze a ball with the non-dominant hand.

## Schedule an Assessment

### What areas do we assess?

- ✓ Dominance
- ✓ Eye Movements
- ✓ Primitive Reflexes
- ✓ Rhythm & Timing
- ✓ Cognition
- ✓ Proprioception
- ✓ Fine Motor Skills
- ✓ Auditory Processing
- ✓ Abdominal Core Muscles
- ✓ Coordination

Getting started with NeuroFiT Connections can help you understand the root cause of your child's disorder, discover the corrective measures for the root cause, and help your child achieve age-appropriate milestones.

Start with an assessment, where we will cover ten different aspects of your child's development, tell you where they are compared to their peers, and recommend a course of action, if necessary, to get your child caught up.

Visit <https://meetnfc.com/AssessMyChild> to schedule an assessment today.