

RETAINED PRIMITIVE REFLEXES & CORE LEARNING SKILLS

Definition, symptoms, testing and treatment



[SPEAK TO A LEARNING SPECIALIST \(/SCHEDULE-CALL/\)](#)

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ABOUT

EXPLANATION OF PRIMITIVE REFLEXES

Primitive reflexes are at the very foundation of normal human growth and development. They are the building blocks that stimulate and support higher-level body and brain organization.

Natural development starts with reflex movements – automatic, involuntary reactions to stimuli such as sound, touch, or movement – and transitions, as the brain and muscles mature, to intentional movements. A shift in focus on external influences to internal awareness facilitates self-regulation and development of physical, intellectual, emotional, and cognitive processes. Development and learning move from involuntary (non-intentional) processes to voluntary, intentional, controlled processes.

Reflexes that continue to fire when they are not needed cause interference to development, often resulting in challenges with one or more of the following:

- Attention
- Movement
- Mental, emotional, and/or physical flexibility
- Organization in time and space
- Sequencing
- Emotional control
- Anxiety
- Stamina and energy
- Visual-motor skills
- Language and learning

TYPES OF PRIMITIVE REFLEXES

Moro Reflex	+
Spinal Galant Reflex	+
The Asymmetrical Tonic Neck Reflex (ATNR)	+
Babkin Palmomental Reflex	+
Hands Grasping Reflex	+

The Symmetric Tonic Neck Reflex (STNR)



The Tonic Labyrinth Reflex (TLR)



EDUCATIONAL CHALLENGES RELATED TO RETAINED REFLEXES

MORO

Easily distracted; difficulty focusing on details; difficulty copying from board; allergies and chronic illness. Panic attacks; mood swings; anxiety; fearfulness. Unexpected changes in behavior; aggressive outbursts.

SPINAL GALANT

Difficulty with fine motor skills (handwriting); dislike of physical education due to coordination difficulties; making noise to relieve pent-up energy; prefers to do homework or watch TV on floor; ADHD or ADD; speech disorders or spelling difficulties; auditory processing issues; poor concentration and short term memory.

ATNR

High distractibility; delayed long distance and binocular vision (causes print to jump around); omission of letters, words, or whole lines; reversal of letters and numbers; difficulty crossing midline; hard to read small print; spelling & grammar difficulties; Dyslexia; reading comprehension; impaired handwriting; tight grip on pencil; writing at angle across page; persistence in drawing a circle clockwise and with 8s; dysgraphia; dyscalculia; dominant hand/eye/leg/ear not established; difficulty in following multiple instructions; poor memory.

BABKIN

Clenched fists indication of tension; nail biting; difficulty with fine motor skills and gross motor skills; involuntary movements of mouth & tongue while reading; poor handwriting.

HAND GRASPING

Speech disorders; stuttering; moving mouth while writing or drawing; involuntary hand movements when speaking; holds pencil too tight; shoulder tension; difficulty expressing ideas on paper due to excessive focus on handwriting.

STNR

Wrapping legs around chair legs, or sitting on one's legs; may sit in W position; poor impulse control; poor attention and concentration; difficulty changing focus from near to far and vertical eye tracking; reading difficulties especially while seated; poor handwriting; poor short term memory; fidgeting; poor attention to work; wandering around the classroom.

TLR

Difficulty with auditory processing (verbal directions); difficulty blocking out irrelevant signals; ADD/ADHD; reading difficulty (comprehension and letter reversals); cross-eyed tendency; difficulty copying from board; losing track of time; disorganized and forgetful; poor short-term memory; poor sequencing skills (ordering speech, spelling; composition & building of concepts); poor alignment skills (math columns); poor language skills; speech disorders; general lack of alertness.

TESTING

HOW TO IDENTIFY RETAINED PRIMITIVE REFLEXES AND WEAK CORE LEARNING SKILLS

Functional Evaluation

In the Functional Academic and Learning Skills Evaluation, 17 reflexes are tested, including the 7 reflexes detailed above that have great impact on learning, memory, and attention.

A Neuro-Developmental Delay (NDD) Checklist created by Lawrence J. Beuret, M.D. is filled out by the parent to determine risk factors and characteristics that would indicate the presence of retained (unintegrated) reflexes and neuro-developmental delay.

Reflex testing involves quick physical tests, (much like when your doctor taps your knee to see if your leg kicks out). Students sit or lay on a massage table while the evaluator moves through the series of physical activities (press, pull, tap) that trigger the reflexes. Reflex testing is passive for the student. Observations of responses to the reflex stimulation as

well as of body control and attention throughout the testing help determine which reflexes are unintegrated and whether interference to learning is occurring at the Core Learning Skills level.

Parents come to us because they see their child struggling functionally in real life. Our goal is not to give a diagnose, but to identify and understand what the real root of those struggles are. Until the supporting, underlying skills are in place, the challenges that parent is seeing cannot be fully resolved. If a more formal diagnosis is needed, one can be obtained from an Occupational Therapist.

TREATMENT

WHAT IS CORE LEARNING SKILLS TRAINING?

Core Learning Skills (CLS) training helps integrate primitive survival reflexes and improve interpretation of sensory input, body and attention awareness and control, visual and motor skills, physical and mental organization, and learning efficiency. CLS involves a series of exercises that are done daily to help make neurological connections in the brain that are critical to comfortable learning and functioning.

Infants have reflex movement patterns that are critical to their survival and provide the springboard for the development of visual and motor skills, regulation, internal organization, attention, and mental and emotional control.

Primitive reflexes integrate (become inactive) in infancy or early childhood as the brain becomes more organized and higher levels of the brain take over. Retention of any of these early reflexes can cause interference in the normal development process, resulting in immature movement patterns and generalized learning and attention difficulties.

Core Learning Skills training helps eliminate the interference caused by primitive reflexes and under-developed visual and motor skills. It is a series of physical balance and movement activities that improve visual skills, internal organization, coordination, self-awareness, self-control, and attention. Core Learning Skills Training uses sound therapy and rhythm activities to help the student gain a sense of reference point and an understanding of space and time, which are so critical for developing attention, self-control, and organization skills.

Core Learning Skills training is targeted specifically to individual student needs through 6 different protocol emphases including:

- Struggling Students / Learning Disability
 - Dyslexia / Visual Skills
 - Attention Focus / Speed control / Regulation and Self-Control
 - Dysgraphia / Fine Motor
 - Body Awareness and Regulation
 - Executive Function / Mental Flexibility
-

WHY IS CORE LEARNING SKILLS TRAINING IMPORTANT?

John Ratey, M.D., author of *A User's Guide to the Brain* says, "Mounting evidence shows that movement is crucial to every other brain function, including memory, emotion, language and learning. Our 'higher' brain functions have evolved from movement and still depend on it."

Learning gets its jump-start through the involuntary movements caused by the primitive survival reflexes babies are born with. There is a normal progression of movement activity that helps a child understand himself and accurately perceive and navigate his world. Interference, for whatever reason, to this normal development through movement can impact a child's attention, learning, interaction, and comfort in the world. We call these foundational movement patterns and skills Core Learning Skills.

Retraining core learning skills can help learners of any age develop higher brain functions and mental control through movement.

HOW DOES IT WORK?

CLS exercises are done daily (minimum 5 days a week), usually as a combined clinic and home program.

In Core Learning Skills training, the aim is not to get the movement "right." We are not training a set of "normal" movements into the child. We are using movements to develop learning. Learning involves thinking, comparing, evaluating, planning, visualizing, adjusting, and ultimately finding the most effective ways to do things. We are not interested in training in a "splinter" skill that a student

can execute but not apply. We are looking to build mental flexibility. “If I have learned something in one way, can I now do it in a different way? Can I choose to do it faster or slower? Can I do it if I start on a different foot? Can I do the pattern backwards or from a different starting point?”

Children with learning and attention challenges are often very inflexible. They are disrupted by any change in routine. They have only one way of doing things because they do not have the physical and mental flexibility to feel secure trying something in a different way. The **mental flexibility and adaptability** needed for ease in learning, social relationships, and general functioning begins at the core learning skills level.

We are working towards students doing the activities in Core Learning Skills Training **effortlessly**, independently, and with flexibility. If we ask them to start in a different place, use a different foot, try a new pattern, go at a different speed, etc., they will be willing and able to do so without anxiety if the movements are becoming internalized and automatic. These are the hidden building blocks of learning.

TRAINING THROUGH QUESTIONING

Integrating reflexes and training the brain, motor, and visual systems for better control and learning involves using the frontal lobes of the brain, or the higher thinking, to shutdown the automatic motor pattern so the person can try a different way. This takes attention, awareness, visualization, and planning.

The therapist or parent’s job in this process is to guide the student in making the movements and then, through questioning, help him to become aware of how his body is working and what adjustments he might want to make. We use questions to direct students’ attention to specific parts of the body and help them become aware of how the movement felt, and how they could change it to gain more ease, flow, and control.

This kind of questioning is much more effective than telling because it engages the child’s conscious awareness and decision-making.

CORE LEARNING SKILLS CURRICULUM

Core Learning Skills Training consists of twelve Core Skill Areas, each of which has a number of different, sequential activities designed to integrate reflexes, build body awareness and control, increase attention and concentration, and develop visual skills and internal organization needed for

learning.

Reflex integration activities provide the cornerstone for the training. CLS training focuses on seven reflexes that have a direct impact on skills needed for functioning in the classroom. At least one reflex integration activity should be included in every clinic and home session. Each reflex should be worked on until testing shows that it is no longer active and training activities are executed with ease, flow, and independence.

EXPLANATION OF CORE SKILL AREAS

Activities in each of these Core Skills Areas start simply, are specifically sequenced, and build in complexity and demand on attention, body awareness, and mental control. Students in Core Learning Skills training will work in a number of skill areas daily for approximately 30 – 60 minutes.

Rhythm and Timing	+
Relaxation and Calming	+
Differentiation and Body Awareness	+
Reflex Integration	+
Vestibular Stimulation	+
Balance, and Mind Body Control	+
Visual Skills Development	+
Laterality and Flexibility	+
Midline and Bilateral Movement	+

Graphomotor Skills	+
Aerobics	+



ADDITIONAL RESOURCES

Blog

- Articles on Core Learning Skills (<https://stowellcenter.com/category/core-learning-skills/>)

Books

- At Wit's End (<https://stowellcenter.com/book-atwitsend/>), Chapter 8
- Take the Stone Out of the Shoe (<https://stowellcenter.com/takethestoneout/>), Chapter 4 and 20

Guides

- Core Learning Skills Information Sheet (</wp-content/uploads/2022/04/Information-Sheet-CLS.pdf>)

Research

- Retained Primitive Reflexes & Core Learning Skills (</research-references/#:~:text=Retained%20Primitive%20Reflexes%20%26%20Core%20Learning%20Skills>)
- Quantum Reflex Integration ([https://stowellcenter.com/research-references/#:~:text=Quantum%20Reflex%20Integration%20\(QRI\)](https://stowellcenter.com/research-references/#:~:text=Quantum%20Reflex%20Integration%20(QRI)))

READY TO TAKE THE NEXT STEP?

Speak to a Learning Specialist to ask questions and learn how Core Learning Skills training can help.

The call is free and without obligation.



SPEAK TO A
LEARNING
SPECIALIST
(/SCHEDULE-CALL/)

Permanently eliminate difficulties associated with learning disabilities, dyslexia, and auditory and attention challenges.

(<https://stowellcenter.com/learning-specialist-call/>)

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