MNRI® – Neurotypical Development and Reflex Integration Disorder

*Patty Shackleford, Ph.D., MNRI® Instructor, Melrose, FL, USA*

**MNRI** in Theory

The MNRI® program is frequently called the ‘missing link’ by professionals from around the world. It synthesizes information on reflex integration, and places it in the frame of both higher and lower nervous system activity (Pavlov, 1927, 1961; Sechenov, 1961; Luria, 1969). In place of the traditional theory of reflexes as primitive responses that become cortically inhibited with normal development (Ayres, 1971, 1975; Vojta, 1972, 1981; Semionova, 1999; Goddard, 2002), MNRI® proposes the concept of reflexes as not only protective responses to stress and danger, but also the neuro-physiological foundation for higher level physical, emotional, and cognitive development. This concept allows reexamination in research of the relationship between primary sensor-motor development and physical, emotional, and cognitive skills. The key element in MNRI® is the understanding of a reflex as a genetic motor code and unit for both primary and conscious sensory-motor system development.

MNRI® focuses on the invitation for healthy neurological development of the infant, child, or adult using exercises rebuilding the sensory-motor reflexes (codes) rather than on diagnosis and treatment of neurological disorders and diseases. The following concepts form the theoretical core of the MNRI® approach:

- sensorimotor integration is an essential factor in human development
- motor development involves physical growth and cognitive differentiation necessary for the attainment of skills and learning
  - the motor system develops on a foundation of integrated sensory perception and brain processing
  - natural learning is achieved by the integration of the sensory-motor, emotional, and cognitive spheres
- a fully functional neurosensorimotor system integrates survival mechanisms and motor, emotional, and cognitive spheres.

The neurophysiology of a healthy nervous system is such that each reflex
must integrate on the sensorimotor level; a specific sensory stimulus must cause a corresponding motor response. This precise link between the sensory and motor aspects of a reflex circuit through brain processing is genetically based. Each reflex consists of a three-part circuit that permits a motor response to a specific stimulus:

Part I – Sensory Stimulation, Part II – Brain Processing, and Part III – Motor Response

In the case of poorly integrated reflexes linked to dysfunctions or developmental delays, errors somewhere in the three-part circuit are likely. If the stimulus is not recognized by the sensory apparatus or transmitted efficiently by the afferent nerve system, then the brain misinterprets the input. If the efferent nerve system incorrectly channels a command to the motor system, an inappropriate reflex pattern will develop. Then maturation and integration of that reflex with controlled movements and skills will be unreliable, especially in the presence of learning challenges and stressors.

In the dynamics of healthy integration each reflex emerges at a specific time and develops its own basic patterns during the first three of seven phases (Masgutova, Akhmatova, 2004) (see figure at right). The transitional fourth phase prepares for the emergence of variants that appear during the fifth, sixth, and seventh phases. Each phase has its particular purpose. For example, a basic pattern (phases 1-3) codes the three part sensory-motor circuit and creates the nerve network that produces an appropriate response to a specific stimulus. By other words, natural training of the coordination of sensory and motor neurons takes place. The time of development of phases 1 to 3 corresponds to the time of development of the brain stem functions of physiological activity and survival. The transition phase - 4 prepares for the emergence of variant patterns, and chronologically corresponds to the time of starting more active work of the diencephalon functions (emotional communication and memory). During the last three phases, the maturation of a reflex is completed by highly developed neural networks – coordination of sensory and motor neuron work, proper electrical conductivity and biochemical neurotransmitters, and a balance of excitatory and inhibitory processes. Reflex patterns progress from the basic or unconditioned level (responsible for protection and survival) through a higher level of a conditioned response incorporating elements of learned experience and intentional action moving to maturation. With complete integration of all components of the reflex circuit and formation of myelination of the axons, proper transmission takes place, which affects the whole nervous system growth and myelination of its neural net system.

Successful completion of the phases described above ensures the development of specific reflexes and integrates them with motor skills and cognitive abilities, a combination that improves academic (elementary reading, drawing, writing, calculating) and other skills. A delay in reflex development or the failure to complete any of these phases always affects the formation of future skills. If an essential phase is omitted, then an appropriately matured neural network is not created. As a result, dysfunction or compensations may develop, but these are not true reflex patterns, and they are unreliable during periods of stress or unexpected transition. In summary, reflex development, maturation, and integration must progress successfully through each of the seven phases. This concept differs from the widely held limiting metaphysical view that healthy development requires reflex inhibition. (Masgutova, 2010; Akhmatova, Masgutova, 2006)

These concepts are based on recent neurological and neurophysiological research on the levels, stages, mechanisms, processes, strategies, and structure of primary sensory-motor integration. They draw on the theories of brain integration proposed by the outstanding scientists A. Luria (1963), A. Anokhin (1973), L. Vygotsky (1986), and A. Amosov (1978) and on the concept of neurological reflexes as responses by the brain-body system to external and internal stimuli (Pavlov, 1927, 1960; Sechenov, 1974; Simonov, 1987). MNRI® emphasizes the
The importance of primary motor development for intentional movements, motor skills such as eating, self-care, drawing, and writing; and visual and auditory processing abilities in the overall development of the motor system in children as described by numerous investigators (Vygotsky, 1986; Piaget, 1976; Rubinstein, 1984; Bozovich, 1968). The approach has been enriched by incorporating the concepts of movement development presented by N. Bernstein (1947), F. Lesfaft (1989), N. Leontiev (1974), V. Vojta (1989), B. Bobath (1972), L. Sadowska (2001), M. Feldenkries (1991), and P. Dennison and G. Dennison (1972) and theories of sensorimotor integration according to J. Ayres (1971, 1975).

Dr. Masgutova's Master's Thesis, *Unconditioned Reflexes, Unconscious Processes and their Effect on Personality Attitudes* (1980) reflected her study of these reflexes and gave her great insight into the impact reflexes have on human development.

**MNRI® in Practice**

MNRI® techniques are designed to restore neurosensorimotor development; to integrate primary motor system and skills; and voluntary motor skills. They activate innate reflex patterns; develop sensorimotor systems; improve sensory processing and promote cognitive and emotional growth. MNRI® also enhances cognitive abilities in highly functioning individuals. This approach encourages joyful learning in children and adults as they improve their neurosensorimotor abilities. The unique results from the pilot studies suggest that the Neurosensorimotor Reflex Integration processes have been used worldwide to change the future of challenged children and adults for positive development. Dr. Masgutova's previous research and clinical work using Neurosensorimotor Reflex Integration was devoted to unconditioned motor reflexes present in the earliest stages of child development.

Practical application of MNRI® has evolved from a combination of the theoretical basis discussed above with decades of experience and research on over 30,000 children and adults, suggesting that:

- in cases of dysfunction and delayed development natural noninvasive activation of the primary motor patterns promotes sensorimotor integration
- simple noninvasive exercises that stimulate reflex motor patterns can serve for repatterning of poorly developed, dysfunctional, or retained reflexes, and integrate into the whole sensory-motor system
- professionals, educators, and parents can assist with the transition from involuntary uncontrolled responses, emotional reactions, and spontaneous motor activity, to self-regulation and inner control.

The MNRI® program has developed ‘regressive↔progressive’ repatterning procedures that ‘remind’ the brain-body system of its genetic neurosensorimotor programs. These procedures involve repatterning exercises to correct basic reflex patterns and/or their variants when they are dysfunctional, immature, or unintegrated. The term ‘regressive↔progressive’ refers to the use of a developed or matured version of a genetically based motor pattern, combined with a precise posture and associated sensory or proprioceptive stimulation, as the foundation for future neurodevelopment. In going back (regressive) to the ‘pure’ innate form of the three part reflex circuit, the brain recognizes a template for growth and development (progressive) supplied by its genetic inheritance. Thanks to neurological plasticity the relevant nerve net system can then rebuild according to its original code and subsequently mature and integrate. MNRI® repatterning procedures are unique and highly effective, and their results are reproducible. They facilitate the integration of reflexes, regardless of the individual's age and neurological state. To correctly use these repatterning techniques, however, practitioners must understand the stages and specifics of human sensory and neuromotor development and be thoroughly trained in MNRI®.

All MNRI® programs use noninvasive natural techniques that can be easily learned by professionals, parents, and other adults who work with challenged individuals. Many techniques involve stimulating neuromotor and sensory-motor points on the body, stretching the trunk and limbs, and rotating the joints. These procedures relate to the interactions among sensory or proprioceptive stimulation, reflex motor patterns and body postures. Other techniques release congestion and muscular tension throughout the body, stimulate the proprioceptive system, open communication among the muscles, tendons, and ligaments, and adjust receptors of deep touch and pressure. Reflex repatterning reconnects, strengthens, or builds neural circuitry by returning to and practicing natural reflex motor patterns and their variants in conjunction with associated sensory stimulation. The MNRI® programs address every possible aspect of a reflex and its relationship to overall sensory-motor development such as Dynamic and Postural Reflex Integration, Lifelong Reflex Integration,
Visual-Auditory Reflexes Integration, and others.

The MNRI® programs are used by professionals who specialize in and are certified to practice the Masgutova Method MNRI® programs. For further information on MNRI®, see the website: www.MasgutovaMethod.com.

Reflex Pattern Profile of Neurotypical Children

Dr. Masgutova’s initial intent in working with children was to strengthen those with post-traumatic stress and next with neurodeficits. Dr. Masgutova has also worked with children considered to have learning challenges, to be gifted/talented, and to be neurotypical. She realized that if the Masgutova Method® was going to move forward with identifying children and adults with Reflex Integration Disorder (RID), a data base was needed to see what the reflexes looked like in neurotypical children.

The research done by Dr. Masgutova from 1989-2013 on neurotypical children (2 to 19 years of age) concerned the reflexes and their parameters that display unique signs and serve as the point of orientation to measure noted deficiencies and deficits in reflex patterns of ‘typical’ children and adults. This information will assist in identifying children and adults with neurodeficits and learning challenges that fits within the concept of RID (S. Masgutova, 2011). The assessment procedures used for this research included assessing the 30 reflex patterns with results statistically verified with analysis by Prof. Anna Krefft (Krefft Algorythm, 2007). The results from this research (for the seventeen years of 1989-2006) on the reflex profile of neurotypical children (730 individuals) indicated that development of reflex patterns for this group of individuals was in the normal range of average – 16.77 points. The results from the data collected in 2007-2013 (780 children) showed that reflex patterns in the modern neurotypical children have changed – with the new ‘normal’ level of reflex development decreasing to a lower point – of 15.80 (compared to a norm of 16-17.75) (see graphs 1, 2, and 3). Comparison of these two results gave statistically significant differences and shows that the modern neurotypical group (2007-2013) range of reflex patterns have dropped in scores for Hands Pulling and ATNR, (Graph 1), Automatic Gait, Bauer Crawling, Hands Supporting, Fear Paralysis, Landau, Flying and Landing, Grounding, Head Righting (Graph 2), STNR, Spinal Galant, TLR, Foot Tendon Guard, Spinning, Locomotion and Balancing (Graph 3). Modern children have demonstrated an increase of points in only one reflex - Pavlov Orientation – the reflex that triggers
curiosity. The higher score on this reflex can explain the influence of computer technology and entertainment programs on our children. Yet this score does not guarantee the development of voluntary control and learning motivation. The statistic validity of the result is significant and equals 0.56 in the first group and 0.78 in the second, with p < 0.001.

Every reflex pattern has its own protective and neurodevelopmental task. A decrease in the level of development of these reflex patterns will evidently inhibit the overall physical, behavioral, emotional, and cognitive development. Comparison of reflex development in three groups demonstrate that the reflexes influencing the emotional maturation and stability, protective responses and survival, and postural control, has significantly decreased. This may be one important reason for challenges in the corresponding areas in the younger generation as reported by parents and professionals.

If changes are noted in this modern neurotypical group, consider what changes may be happening to children who are diagnosed as having neurodeficits. The downward trend in neurotypical children may be occurring due to changes in our natural environment, food supply, style of life, lack of movement, and other cultural practices such as methods used to safely raise our infants and babies.

Healthy children are naturally active, curious, and constantly moving, yet often their activity is reduced due to many factors: quiet behavior is valued and reinforced by adults in many cultures; today’s increase in technology has children immobilized for hours in front of electronic screens; and, accelerated academic curriculums leave less time for recess and physical education. Even infants move less. They miss beneficial tummy time because sleeping on their back is encouraged and they spend hours each day in restrictive devices such as car seats. This kind of restriction along with overall diminished movement inhibits natural growth and development. Perhaps this is the reason many students (children and adults) today struggle with focusing, abstract information processing, and learning. Children whose movement and cognitive activity are poorly integrated face a variety of learning, behavioral, and social challenges.

Over the past few decades such profound changes have occurred in child rearing practices, education and general life style that one cannot assume all our children will grow and thrive naturally. Environmental toxins, food additives, over-reliance on medication, electromagnetic fields, electronic devices, junk food, safety measures that restrict movement and touch, developmentally inappropriate curricula, and decreased time for unstructured play have all moved childhood farther and farther away from natural development. These cultural and environmental factors can be reasons for lower results on reflex development in neurotypical children.

The unique results from the worldwide pilot studies looking at children’s progress after the use of the Masgutova Neurosensorimotor Reflex Integration (MNRI®) processes indicate positive growth and development for the children with challenges and neurodeficits.

Dr. Masgutova’s previous research and clinical work using MNRI® processes was devoted to unconditioned motor reflexes present in the earliest stages of human development. Every neonate has unconditioned innate reflexes that facilitate adaptation to the external environment and become the foundation of mental activity. The Masgutova Method® finds that innate primary movements and reflex patterns are expressed by every individual and are key elements of neurosensory-motor development of a human.

Many reflexes are essential for survival, especially during periods of stress and traumatic experiences (Masgutova, 2011; Akhmatova, Masgutova, 2007). These reflexes are the fundamental neurological building blocks for all learned skills and voluntary control, crucially influencing the development of the brain and many cognitive and intellectual processes as we mature. During certain events that occur in utero, at birth, or later in life, a child or adult may experience trauma that affects the ability to use those reflex patterns effectively. In addition, stressful situations may cause an individual to revert to using early infant reflexes. Experiencing stress (physical or emotional) that affects cognitive and intellectual maturation and the ability to learn is the main source of impulsive behavior and engenders a reliance on primitive reactions and reflexes, both of which lead to a regression in the formation of coordinated sensory-motor systems and movement skills. Because reactive responses and primary reflexes are designed to protect the individual and to ensure survival, they often overshadow the reasoning that occurs in the neocortex of the human brain.

In some children and adults, primary reflexes may be retained after a stressful event because of developmental motor problems, sensory processing disorders, or the poor integration of those reflexes with the intentional movements in infancy. Other survival reactions and reflexes are triggered and necessary protec-
tive and survival needs are unmet, emotions are suppressed, or everyday stressful events occur. In these individuals, primary reflexes remain active and do not integrate within their circuit. As a result, abnormal movement patterns develop and impede the development of more mature movements, skills, and intellectual processes.

Dr. Masgutova’s research on over 3,350 subjects (age range 1 month–18 years) with a variety of developmental deficits, noted a correlation between the poor development of reflex patterns and the deficit(s) identified. Seventy-eight percent of those individuals (age range 4–15 years) demonstrated various difficulties such as: hyperactive or hypoactive response to sound perception, also language delays when the Asymmetrical Tonic Neck Reflex was underdeveloped. This research found that 57% of those subjects who were considered to have attention deficit disorder (ADD), attention deficit/hyperactivity disorder (ADHD), and poor transition from concrete to abstract thinking had poor Symmetrical Tonic Neck Reflex development. Fifty-eight percent of the children with an attention disorder also exhibited problems with the Spinal Galant, Spinal Perez, and Asymmetrical Tonic Neck Reflexes.

In the USA alone, the chart at right provides information on the percentage of children of 3-17 years of age that in the 2008 census were considered as having a developmental disabilities that hindered typical growth in one of the necessary life skills. This chart also indicates the significant increase in these developmental disabilities of the last years.

Dr. Masgutova and MNRI® specialists have also gathered information on the changes that have occurred in both neurotypical children and children considered as ASD and PTSD. The graph (below-right and next page) shows the comparison of children diagnosed with Autism Spectrum Disorder (ASD) and Post-Traumatic Stress Disorder (PTSD) with neurotypical children.

The data demonstrates significant differences in all reflex patterns of modern children in the neurotypical group (first column; average level – 15.8 points) and the ASD group (second column; 9.11 points). The last group shows a dysfunctional level of development of reflex patterns (9.11 point, while the norm is 16-17.75 points), except for Core Tendon Guard, Thomas Automatic Gait, and Trunk Extension. On these graphs (graph 4, 5, 6) the level of reflex development in children with ASD before (second column) and after 8 days of the intensive MNRI® program is presented (third column), showing significant positive changes in all reflex patterns, with an average of 10.40 points (compared to 9.11 before MNRI® program). The statistic validity of the result is high and its significance equals 0.39 before and 0.51 after the MNRI® Program. The linear error in projection of change is not more than 1.77 – 2.80 percent and supports the conclusion that the MNRI® program produces statistically significant changes in reflex pattern development; p < 0.001.

Analysis of development of reflex patterns in the group of Post-Traumatic Stress (PTSD; 340 individuals) shows that this group’s reflex patterns are of a low and very low level (11.14 points average) as the result of going through unbearable trauma and distress. Intense stress and distress activates a higher level of stress-hormones in the body and diminishes

---

Graphs 4, 5, & 6: Motor Responses within Sagittal, Horizontal, and Dorsal Planes of the Body. Reflex Patterns Profile of Children with ASD (Age 4-20; 480 children) and Neurotypical Development (Age 2-19; 780 children).
myelin of the axons in the reflex neuronal circuits and other nerve systems. The assessment of reflex patterns in individuals with PTSD demonstrates differences in all reflex patterns compared to reflexes in the neurotypical group (first column; average level ~ 15.8 points). In the PTSD group (second column) reflexes are of very low and low level on the scale (11.14 points vs. the norm of 16-17.75 points), except for Hands Grasp, Leg Cross Flexion-Extension, Thomas Automatic Gait which are closer to the level of reflexes in modern neurotypical children.

On graphs 7, 8, and 9, the changes in the level of reflex patterns in children with PTSD before (second column) and after 8 days of the intensive MNRI® program are presented (third column), and indicates a significant positive increase of points for all reflex patterns in individuals with PTSD clearly shows this damage to nerve circuits.

The data in the graphs 7, 8, and 9 for reflex patterns in individuals with PTSD demonstrate differences in all reflex patterns compared to reflexes in the neurotypical group (first column; average level ~ 15.8 points). In the PTSD group (second column) reflexes are of very low and low level on the scale (11.14 points vs. the norm of 16-17.75 points), except for Hands Grasp, Leg Cross Flexion-Extension, Thomas Automatic Gait which are closer to the level of reflexes in modern neurotypical children.

On graphs 7, 8, and 9, the changes in the level of reflex patterns in children with PTSD before (second column) and after 8 days of the intensive MNRI® program are presented (third column), and indicates a significant positive increase of points for all reflex patterns in individuals with PTSD clearly shows this damage to nerve circuits.
patterns (average of 14.28 points compared with 11.14 before the MNRI® program). The statistic validity of the result is high and its significance equals 0.47 before and 0.61 after the MNRI® program. The linear error in projection of change is not more than 1.67 – 2.56 percent which supports the conclusion that the MNRI® Program produces statistically significant changes in reflex pattern development; p < 0.001 (from lecture and presentation materials by Dr. S. Masgutova in 2008-2013).

Dr. S. Masgutova’s research demonstrates the effectiveness of MNRI® for children with different challenges. Currently the MNRI® research has composed reflex profiles for 14 groups of children with neuro- and developmental challenges, including dyslexia, ADD and ADHD, cerebral palsy, genetic disorders, and others.

Problems in the natural course of human development have long attracted the attention of scientific investigators such as Dr. Masgutova. Extensive research has focused on theories of learning (Piaget, 1973; Montessori, 1995; Clark, 1995; Dennison, Dennison, 1972) and personality development (Vygotsky, 1986; Montessori, 1995; Bozowich, 1968; Leontiev, 1977). However, in the educational and psychological literature, little research has been devoted to natural sensory-motor and motor development. As a result, few professionals use a completely natural approach to correct Reflex Integration Disorders and other neuro-motor and developmental disorders.

Currently there are many cognitive interventions aimed at mastery of specific skills by task analysis, gradual learning, and practice. Occupational and physical therapists now use sensory integration techniques to address the difficulty some children have in regulating their response to sensory input. Professionals practicing neurodevelopmental treatments emphasize the traditional idea of inhibition of retained or abnormal infant reflex patterns. Developmental optometrists use vision training to address difficulties with visual acuity that lead to delays and dysfunctions in motor-balance system and visual cognitive development. Some educational and remedial programs make use of motor activity, including natural movement. All of these interventions either directly or indirectly address some, but not all aspects of the primary reflex system. Fortunately, many professionals, educators, and parents are increasingly concerned and are interested in understanding the MNRI® processes used to improve the symptoms of Reflex Integration Disorders or poorly developed reflex patterns.

The Masgutova Method® differs from other traditional therapy systems with its concept of using a non-invasive procedure of neurosensorimotor integration to rebuild the entire neural circuit of a reflex by reorganizing the original motor/posture/sensory/vestibular-proprioceptive perception systems, and the exact basic pattern, sequence, direction, strength, timing, and symmetry that would characterize an ideal initial experience of that sensory-motor reflex pattern.

The MNRI® program brings positive growth and development to typical children and effective and positive reflex integration using natural noninvasive sensory-motor techniques and movements that can be easily learned by parents, adults, and professionals who work with challenged individuals. The MNRI® techniques do not require many resources, and they complement other therapy programs such as sensorimotor integration and educational, psychosomatic, and motor sphere enhancement. The MNRI® integration exercises and techniques can be performed without equipment, require just minutes each day and can be practiced in almost any location (home, park, school, or clinic).

As the data in the above graphs demonstrate, Dr. Masgutova’s research and work with over 30,000 children has found that the primary motor system has its own structure, levels of development, self-regulating mechanisms, and ‘nonverbal language.’ Primary motor patterns develop according to natural laws. Each reflex, motor pattern and body plane Motor Coordination System (MCS) emerges, develops, and integrates with conscious motor skills at a specific age. Although motor pattern development is based on genetic motor programs typical for all humans, it is a unique process for each individual. Dr. Masgutova’s early research and practical application of Neurosensorimotor Reflex Integration techniques has evolved through the combination of the theoretical basis discussed above and decades of experience. This research suggests that:

• in cases of dysfunction and delayed development natural noninvasive activation of the primary sensory-motor system promotes sensorimotor integration and brain development
• simple noninvasive exercises that stimulate reflex patterns can integrate poorly developed, dysfunctional, or retained reflexes into the whole body sensory-motor system
• professionals, educators, and parents can assist with the transition from involuntary uncontrolled responses, emotional reactions, and spontaneous motor activity, to self-regulation and inner control.
During individual development these natural genetic programs expand, integrate, and merge with learned movements. Consciously controlled movements develop at the next level. Finally, with repeated training, these learned motor programs become the foundation for the habituated individual automatic motor program. Motor development involves:

- the formation of primary motor systems such as global archetypal motor patterns, rhythmical movements, reflexes and reflexive reactions, systems of natural motor skills, abilities based on automatic movements and reactions, and instinctive behavior
- development of basic infant reflex patterns and their variants
- integration of infant dynamic and postural reflexes with intentional and consciously controlled movements
- maturation of stages of motor development (turning from prone to supine and vice versa, sitting, standing, etc.) and the formation of transitional movements (turning around, sitting, and other motor skills needed for changing positions)
- coordination among body parts and sensory organs (left hand-right hand; hands-eyes; hands-eyes-ears; hands-legs; etc.)
- development of MCS and skills for the left and right sides of the body (involving left and right brain hemispheres), the upper and lower sections of the body (involving the cerebral cortex and midbrain), and the front and back of the body (involving the cerebral cortex and the back of the brain).
- formation of basic motor patterns used in fine motor skills such as drawing, writing, reading, playing an instrument, etc.
- development of intentional goal-oriented and controlled motor patterns, such as those used in sports, exercising, dancing, public performances, etc.
- enrichment of the pace and rhythm of motor activity
- development of lifelong reflexes regulating antigravity mechanisms and postural control (gravity, grounding, stability, and balance)
- development of adequate functioning of the muscle system within the primary motor system
- development of kinesthetic intelligence (sensory-motor aspects of consciousness, behavior, and activity)
- development of neurological links between primary motor abilities and skills and their emotional, cognitive, and behavioral expression.

Conclusions

Dr. Masgutova is the originator of MNRI® and Director of the Svetlana Masgutova Educational Institutes in Poland and the United States. Her Master’s Thesis, Unconditioned Reflexes, Unconscious Processes and their Effect on Personality Attitudes (1980) reflected her early interest in the study of reflexes and gave her great insight into the impact reflexes have on human development. Throughout her early professional career she was given opportunities to see what happens to individuals as they experience trauma and tragedy in their lives. With her intellectual knowledge and practical experience, Dr. Masgutova has been able to bring to children and families a new paradigm on how to use the genetically given, innately developed concept of reflex development using a non-invasive, highly successful method called the Masgutova Neurosensorimotor Reflex Integration – MNRI®. The programs in this system have been used to help identify what is ‘typical’ for all children and how the non-integration of reflexes can cause challenges for children (and adults). This article has attempted to give research evidence of the positive growth and development that can occur when Dr. Masgutova’s process for reflex integration is applied. It is hoped that the reader of this article will begin to understand the impact of a Reflex Integration Disorder on the cognitive, physical, emotional, and social development of a child.
References


www.MasgutovaMethod.com

Lecture and presentation materials by Dr. S. Masgutova in years 2006-2013.