

*Coming to Grips
with*

Primitive



Reflexes

Does this describe your child?

*Friendly
Well adjusted
Well coordinated
Well behaved
Confident
Polite Calm Healthy
Makes friends easily
Progressing well at school
Attentive
Able to focus on school tasks
Communicates well
Reaching potential*

Or this

| | |
|--|---|
| <i>Poor concentration</i> | <i>Poor coordination or clumsiness</i> |
| <i>Poor posture</i> | <i>Poor pencil grip & handwriting</i> |
| <i>Easily distracted</i> | |
| <i>Aggressive</i> | <i>Throws tantrums</i> |
| <i>Inability to cope with change</i> | <i>Impulsive</i> |
| <i>Bedwetter</i> | <i>Low self esteem</i> |
| <i>Withdrawn</i> | <i>Can't sit still</i> |
| <i>Hyperactivity</i> | <i>Frequently in trouble</i> |
| <i>Poor school performance</i> | <i>Socially inept</i> |
| <i>Often has coughs, colds, runny nose, itchy eyes, headaches, abdominal pains and always tired.</i> | |

If you say yes to several items on the second list it is likely that your child may have retained primitive reflexes causing problems.

Adults may also have retained primitive reflexes. Symptoms include:

*Anxiety
Agoraphobia
Panic attacks
Poor self esteem
Excessive shyness
Overreaction to incidents
Inability to cope with change*

What are primitive reflexes anyway?

A brief history

Way back in 1975 two UK Educationists worked with children who had physical and learning problems. They looked at a huge range of ultrasounds of pregnant women and noticed that the foetuses made a series of stereotyped movement patterns. They concluded that normally functioning children were those who had conformed to these patterns and the children in their care who were developmentally delayed had not made all these movements.

They then set up an exercise program where the children had to repeat the movements they had missed, very slowly & regularly. To their great delight not only did the children improve in physical performance but academically as well.

Out of this breakthrough the Institute for Neurophysiological Psychology (INPP) emerged, with Peter Blythe as its founder and later Sally Goddard its co- director (See Bibliography) Knowledge about these Primitive Reflexes started to grow and spread around the world.

What are they?

- They are movement patterns that develop in utero for the development & survival of the foetus.
- They are controlled by the brainstem.
- They assist in the birthing process & are necessary for the baby's early development.
- Primitive Reflexes emerge in a specific sequence.
- They play a vital role in survival for crucial periods.
- As the Central Nervous System matures and the reflex has done its job, it should undergo inhibition or transformation by a higher part of the brain.
- The next reflex then emerges to do its job.

This continues until they are all inhibited and are replaced by postural reflexes which remain for life.

What can happen if the Primitive Reflexes are not inhibited?

If they are not inhibited at the appropriate time they are said to be retained. The Primitive Reflexes should be inhibited by 12- 18 months of age. If this does not happen, the person may have these or other symptoms:

- Impaired function of the Central Nervous System
- Poor gross motor skills (jumping, skipping, etc)
- Poor fine motor skills (hand- eye coordination ,manual dexterity)
- Poor perceptual ability
- Poor social skills

What causes reflexes to be retained?

There can be many suggested causes but the major ones are:

- Severe stress during the pregnancy.
- Traumatic birth eg emergency caesarean,
- Prolonged or breach birth
- Premature birth

This does not mean that all premature births result in retained reflexes. & it does not suggest that normal or easy births can not result in retained reflexes. There are many complex variables.

How do we address these retained primitive reflexes?

Sally Goddard & Peter Blythe used testing procedures developed by neurologists and physiotherapists to identify retained primitive reflexes. ***They developed a series of exercises based on the earlier discoveries, for remediation.***

15 years ago Shanagh Sangster trained at INPP and has utilised their methods successfully.

More recently Bernard Carson, Shanagh and Glenn Turner ran a successful pilot study using Kinesiology, particularly the Neural Organisation Technique, to address the Primitive Reflex issue.

Bernard & Shanagh co-authored a training manual Coming to Grips with Learning to teach other Kinesiologists their innovative methods. *They employ simple Kinesiology interventions for swift outcomes. The emphasis is on achieving outcomes with the least stress, distress and time delay for the families concerned.*

Specially trained chiropractors, physiotherapists and the Toddler Kindy Gymparoo centres all do great work in this field.

Are these lengthy procedures?

No they are not.

The system developed in our Coming to Grips with Learning course requires on average one assessment session using the INPP protocols and up to four or five Kinesiology sessions including re-assessment. Most other exercise programs have a 6- 12 month duration, but the system we have developed uses simple interventions for swift outcomes.

The parents usually choose to return for what they call a "grease & oil change" after 6 months and often bring siblings along to enjoy the benefits of being neurologically well balanced as well. This ensures that corrections have held and outcomes of any sporting accidents do not have a lasting detrimental effect.

Is this the only treatment my child will need?

This depends entirely on the problem & its complexity. Parents fill in a questionnaire on arrival so Shanagh can get a clear picture of the problem they want addressed.

It would be foolish to address only coordination problems if the child has auditory problems and allergies as well. These can be linked with retained reflexes and addressed in conjunction with them.

(See final section: "The main primitive reflexes" to see how a retained ATNR can affect visual function and the Moro can affect behaviour and the immune system)

Our Holistic approach may include:

- Allergy desensitisation www.nma-oz.com
- Kinesiology, to address:
 1. Secondary emotional problems that may occur through school failure, bullying etc.
 2. Neurological, muscular, immune & digestive system imbalances
 3. Retained Primitive Reflexes. See my profile in www.naturaltherapypages.com.au under Kinesiology, Waitara.
- Biofeedback: a drug free approach to addressing ADHD. Many desperate people have benefited from Helena Bursik's approach. www.optimallearning.com.au
- Auditory processing www.samonasaustralia.com

Each treatment enhances the others just as each system is a part of the whole body. We are open to inter-referral to find the right treatment for your children if ours is insufficient to meet their needs.

What are the advantages of this holistic approach?

The combination of therapies is far more powerful than one on its own and it is

- Drug free
- Looks at the whole child
- Caters for individual needs.
- Non invasive

Who else can benefit from these treatment protocols?

- Anyone who wishes to improve their health and emotional wellbeing.
- This can apply to adults as well as children.
- Children who may appear to be coping quite well, may actually be doing so under considerable stress to themselves or simply not reaching their true potential.
- Children about to start school (a screening process can identify areas that can easily be corrected *before* they cause distress and failure.)
- Parents may also have retained reflexes & learned to cope with them. If so, addressing them can reduce the stress in your life enormously.

What changes might I see?

There is no hard and fast rule as each child is an individual but below are some of the changes that have been reported, some very obvious and others more subtle

- Increased calmness
- Improved behaviour
- Better coordination
- Improved sporting prowess
- Improvement in
 - Reading
 - Spelling
 - Comprehension
- Handwriting
- Following instructions
- Cooperation
- Ability to stay on task
- Greater self-esteem & confidence
- Any other improvements that may be specific to your child.

Where is your clinic?

Top floor

21/75 Pacific Highway

Waitara 2077

Phone 02 9487 8957

Easily accessible by train to Waitara or Hornsby.

Some of the Major Primitive Reflexes

Fear Paralysis Reflex
Moro
Palmar
Asymmetric Tonic Neck
Spinal Galant

The Fear Paralysis Reflex

This reflex is the first one we know about. It is one which involves withdrawal away from threat and should be integrated long before birth. Its continued presence will delay integration of the Moro Reflex .

Some of the symptoms of a retained Fear Paralysis Reflex:

Low tolerance to stress
Fear of new situations/ new activities/ social embarrassment
Insecurity/ social isolation
Temper tantrums- often screaming loud & long in a new situation or one they consider threatening- or-
May go into "freeze mode" unable to think & move at the same time
Elective Mutism- failure to speak in certain situations and yet be able to speak freely otherwise
Excessive anxiety over seemingly trivial matters

The Moro Reflex

This reflex is one of the earliest to develop (nine weeks in utero). It is essential for survival but disastrous if not inhibited at the correct time (2 - 4 months of age) In tiny babies their reaction to threat is to fling their arms open, scream and go pale or red in the face. Triggers that cause this may be:

- sudden change, such as a vestibular change like being lifted up quickly without support
- an auditory stimulus like an unexpected loud noise
- a change in movement or light in the visual field or
- unwanted tactile stimulation.

This excessive response is the early 'flight or fight' reaction. Later in life, this will only occur in moments of extreme danger. If we are in a situation where there is a traffic accident, we may feel stressed and out of sorts for some time after the accident.

Someone who has a retained Moro Reflex may experience this sensation many times a day. They experience a rush of adrenalin which causes the 'flight or fight' reaction followed by cortisol release, which has a calming effect. The whole process is quite disturbing emotionally. Imagine this emotional instability in a school situation.

The child will be so involved in coping with these neurological and biochemical responses in addition to the emotional distress, that (s)he is hardly in a position to cope with cognitive tasks required in the classroom.

(Many of us as adults do have a retained Moro, and it can re-occur during life under severe stress) You may have learnt to cope with this over the years but it may cause you considerable stress...

Other reactions to the Moro:

- The child may be **hypersensitive** and **immature** or **overreactive**.
- Moro driven people **dislike change** and are **fearful of new things**.
- A change of routine in the classroom, even for something pleasurable, may cause a child to throw a tantrum that seems a huge overreaction to the rest of us.

These children may also react in one of two ways with their peers:

- they may **shrink away** and be the withdrawn wallflower, observing but not participating, or
- they may want to **be the boss** of the game all the time.

After all, the boss makes the rules and others can't change them, or take him(her) by surprise. Understandably, these people have frequent mood swings because they are constantly on the alert against perceived threat.

The visual component of this reflex may cause them to be **stimulus bound**, ie the eyes are constantly wandering to the periphery of the page, the blackboard or the

classroom, so that they don't remain on task. They may also have difficulty when reading with the contrast of black print on white paper.

Moro driven people can be **extremely sensitive** in many situations. The constant stress involved in its frequent emergence can cause a depleted immune response. It is hardly surprising then, that these children are often more prone to allergies (many of the learning difficulties children I see have asthma, eczema or hayfever and other allergic responses).

Sadly children with a retained Moro reflex may have **difficulty showing and receiving affection as well as problems socialising**, They often prefer to play with younger children.

The Palmar Reflex

(11weeks in utero-3months of age)

These symptoms may indicate a retained Palmar reflex.:

Poor manual dexterity
Making movements with mouth when drawing
Speech problems
Poor pencil grip

The Palmar reflex is the automatic grasping movement of the hand if the palm is touched. It needs to be inhibited for efficient fine motor skills such as writing and sewing movements.

Asymmetric Tonic Neck Reflex

(18 weeks in utero- 6 months of age)

These symptoms may indicate a retained ATNR:

Difficulty copying symmetrical figures
Balance affected if head moves to the side
Awkwardness skipping
Homolateral marching (same leg & arm)
Difficulty crossing the midline of the body
Poor eye tracking especially across the midline

Difficulty writing if looking at the board
Difficulty getting ideas onto paper
Difficulty learning to ride a bike

This reflex consists of a movement where the head tucks in and leg and arm on one side fling out and the head then turns in that direction. Then the opposite movement occurs. This reflex is very useful in the birthing process with an interaction between the mother and child. The mother's contraction stimulates this reflex and the baby's movements then cause another contraction to occur.

Hand- eye coordination is developed through this reflex: The baby turns its head, the eyes fixate on the hand stretching out or grasping an object. This is the start of awareness of distance. This reflex needs to be inhibited for smooth cross pattern crawling and creeping to develop.

Trying to focus on the body position for writing and hanging on to the pencil so that the arm does not extend and fling it away, can require huge effort so it is not surprising that these children avoid written tasks & find school assignments really stressful.

Spinal Galant

(20 weeks in utero - 9months of age)

If retained you may see these:

Fidgetting

Bedwetting

Poor short term memory & concentration

This reflex like the ATNR plays a part in assisting in the birthing process- as the hip moves it helps the baby into the birth canal. The lower spine on either side is very sensitive to touch so stimulation such as the elastic in underpants or moving against the back of a chair can result in a squirming movement.

Stimulation on both sides of the spine simultaneously can cause defecation or wetting if this reflex is strongly retained.

It may also affect fluency and mobility in sporting activities.

Tonic Labyrinthine Reflex

If retained you may see these symptoms:

Poor posture / stooping or walking on toes
Poor sense of balance
Car sickness
Poor sequencing skills
Lack of organisation
Poor sense of time
Stiff jerky movements / poor muscle tone
Difficulty judging distance, speed and depth

Some of these may seem contradictory symptoms.

It is because there are two aspects to this reflex, one related to bending the neck down with the limbs bending & the other in tilting the neck back accompanied by straightening of the limbs.

The development of this reflex takes the baby from its floppy curled up foetal position to one of strong muscle tone and the ability to straighten out & walk upright.

Symmetrical Tonic Neck Reflex

(6- 9 months age -- 9- 11months age)

These symptoms may indicate a retained STNR:

Poor posture
Can't sit still
Slumps when sitting at a desk
Slow at copying tasks
Poor hand -eye coordination
Messy eater
Clumsy
Difficulty with overarm swimming.

This reflex helps the baby to defy gravity & get up on hands and knees to crawl.

It enables the child to move the two halves of the body independently.

If retained the child may not crawl on hands & knees but do a " bear walk" on hands & feet or shuffle along on their bottoms.

A very important reflex for training the eyes to cross the midline, looking from one hand to the other as crawling develops. In reading they need to be able to read fluently across the page without losing the words on the midline.

Crawling develops interaction between the vestibular, visual & proprioceptive systems. Without this, balance, space & depth perception will be poor.

Primitive Reflex Screening Questionnaire for Children

Research (published in *The British Journal of Occupational Therapy*, October 1998) has shown that a score of 7 or more 'yes' answers on the questionnaire below indicates that further investigation for underlying neuro-developmental delay is advised for children **over 7 years of age**.

- Is there any history of learning difficulties in your immediate family?
- Were there any medical problems during the pregnancy?
- Was the birth process unusual or prolonged in any way? E.g. CS, Forceps, etc.
- Was your child born early or late for term (more than 2 weeks early or more than 10 days late)?
- Was your child's birth weight below 5lbs ie 2.2 kg ?
- Did your child have any difficulty feeding in the first weeks of life, or in keeping food down ?
- Was your child extremely demanding in the first 6 months of life?
- Did your child miss out the 'motor stage' of crawling on his or her tummy and creeping on hands and knees?
- Was your child late learning to walk (16 months or later would be considered late)?
- Was your child late learning to talk (2-3 word phrases at 18 months or later would be considered late)?
- Did your child have difficulty in learning to dress himself or herself, for example, do up buttons or tie shoelaces beyond the age of 6-7 years?
- Does your child suffer from allergies?
- Did your child have an adverse reaction to any of his or her vaccinations?
- Did your child suck his or her thumb beyond the age of 5 years?
- Did your child continue to wet the bed, albeit occasionally, above the age of 5 years?
- Does your child suffer from travel sickness?

Above 7 years of age:

- Did your child find it very difficult to learn to tell the time from a traditional (as opposed to digital) clock ?
- Did your child have an unusual degree of difficulty learning to ride a bicycle?
- Did your child suffer from frequent ear, nose, throat or chest infections at any time in His/her development ?
- In the first 3 years of life, did your child suffer from any illnesses involving extremely high temperatures, delirium or convulsion?
- Does your child have difficulty catching a ball, doing forward rolls/somersaults and stand out as 'awkward' in PE classes?
- Does your child have difficulty sitting still for even a short period of time?

- If there is a sudden unexpected noise, does your child over-react?*
- Does your child have reading difficulties?*
- Does your child have writing difficulties?*
- Does your child have copying difficulties?*

Additional Information

- Has your child had a diagnosis of any specific problem?*

Please enter below any additional information that you think may be relevant regarding the possible diagnosis of your child, including any previous diagnosis info:

For your nearest Primitive Reflex therapist addressing Neuro Developmental Delay please contact
Shanagh Sangster
21/75 Pacific Highway
Waitara 2077
NSW

Bibliography

- *Ayres A.J., Sensory integration and the child. Western Psychological Services, Los Angeles 1979/82.*
- *Blythe P., A Physical Basis for Panic Disorders, Lechereat 4th International Conference of Neurological Dysfunction in Children and Adults, Guernsey CI, UK Sept 1990*
- *De Myer W., Techniques of the Neurological Examination, McGraw Hill, New York 1980.*
- *Ferreri C.A., DC Neural Organisation Techniques, Manual of Basic Philosophy and Concepts, Brooklyn NY.*
- *Goddard S., Reflexes, Learning and Behaviour, Fern Ridge Press 2002
The well balanced child, Hawthorne press, Gloucestershire, 2004.*
- *Gold S.J., When Children Invite Child Abuse, Merril I. Columbus, Ohio 1960*
- *Masgutova Svetlana & Akhmatova Nelly Integration of dynamic and postural reflexes into the whole body movement system, 2004.*
- *Tansley A.E., Reading and Remedial Reading, Routledge and Kegan Paul Ltd, London 1967*
- *Walther D.S., Applied Kinesiology, Systems DC, Colorado 2000.*

*For a more in depth understanding of this fascinating subject the many references in Goddard S, **Reflexes Learning and Behaviour**, a Window into the Child's Mind, may provide some enlightenment.*