

A Brain For Life!

RESOURCE HANDBOOK

Created by Bette Lamont for Workshop Participants

NeuroDevelopmental Movement is the original body/brain integration program, treating impaired children since the mid 1950s. There have been many disciplines that have sprung from this work and resemble it. NeuroDevelopmental Movement, AKA Neurological Reorganization, is the original and most global of those disciplines. There are several places where you can find NDM practitioners and as well, we encourage more people to get training through upcoming certification programs.

While this work is not for every child due to a variety of particular limitations in the child's life, including lack of parent interest or support; lack of a full team who can work with the emotional issues that (rarely, but sometimes) arise as a result of triggering incipient memories; time limitations, etc., it is nonetheless a strong approach when done in a supportive setting. NeuroDevelopmental Movement, in our most traumatized children, should be paired with appropriate mental health counseling, and often a biomedical approach to deal with neurotransmitter balances in the brain, allergies, etc.

Principles on which NeuroDevelopmental Movement is based:

- 1.) The brain is a hierarchy with the higher brain dependent on the integrity of lower brain levels for full functioning. If there is any disruption at lower levels of the brain, all higher functions are affected as well.
- 2.) A program of activities designed to stimulate and integrate brain function will help the whole brainwork more efficiently. Programs always address the lowest level of dysfunction first.

Programs for clients are based on these understandings

- 1.) Sensory and motor activities are essential in the creation of an organized brain and good learning skills.
- 2.) The neurological organization of injured brains can be improved by increasing the duration, frequency, and intensity of appropriate sensory and motor activities.
- 3.) To influence the organization or reorganization of injured brains, it is necessary to make a fresh start beginning with activities and sensory inputs that have proven beneficial in promoting effective neurological organization from early infancy on. Thus, your program may include activities typical of infants, such as crawling, creeping, vestibular stimulation, motor patterning, sensory stimulation, or other activities based on your needs.

NeuroDevelopmental Movement Resources

For a list of NDM practitioners around the U.S., go to the website for NeuroSolutions International: www.nsibrain.com There you will see links to individual practitioners, in the United States and Canada, several of them offering a great depth of information on NeuroDevelopmental Movement.

Bette's website: neurodevelopmentalmovement.org
Email: bettelamont@gmail.com

Resources for Teachers

Red Flags, a book by Katie Johnson, elementary school teacher, reading specialist and author, draws strongly on NeuroDevelopmental Movement as well as vision therapy. This brilliant, practical, and common sense handbook presents teachers with 27 neurodevelopmental and vision issues that interfere with learning and ways to help. One reviewer writes: "If you are a Primary School Teacher (or OT, PT or Dance Therapist), you will find this small handbook a treasure of information about children's developmental patterns and struggles in the world of today and a specific and clearly written guidebook about how to approach issues

of visual and motor development and enhance reading and writing in grades K-3 (and beyond) through movement activities and more.” This book always gets top ratings from readers.

Teachers whose concerns are for students with learning, behavior, and physical differences that do not rise to the level of clinical concern can add a great deal to their children’s well-being by using Anne Green Gilbert’s BRAIN DANCE. This simple sequence of movements can be used daily before classes, and teachers report how much it adds to the attention, focus, and competence of their children as they use it over time. Bette Lamont was an adviser to Ms. Gilbert but despite this, the sequence does not use any floor work. It is a lovely classroom “wake-up and start thinking” video. Go to: <https://vimeo.com/40164646>

For a more in-depth consideration of the use of dance as a tool to prompt academic excellence please read Anne Green Gilbert’s book Brain Compatible Dance, available at Amazon. Or even better, order it through your local bookseller.

Resources for Nursery/ Childcare Workers

Encouraging Physical Development Through Movement Play, Carol Archer and Professor Iram Siraj, Sage Publications, London England, July 2015. This book is the result of the work of Carol Archer, Nursery Supervisor in London, England, and Bette Lamont who trained nursery workers in Camden, London, England. This brings developmental movement into nurseries and is particularly effective for those children whose movement opportunities are limited in the home. Developmental activities presented as Movement Play bring many children up to an appropriate developmental level before they enter academic programs at the age of five or six.

Resources for Parents

- 1.) NeuroSolutions International at www.NSibrain.com (To find a practitioner.)
- 2.) Parents seeking support for parenting have found a great resource in the *Hand in Hand Parenting* community. *Hand in Hand Parenting* is an online international

organization that connects parents through the Internet, helping them solve parenting dilemmas. Mission statement: Our mission is to provide parents with insights, skills, and support they need to listen to, and connect with, their children in a way that allows each child to thrive.

For information on *Hand in Hand Parenting*, contact Kathy Gordon at mkgstar@sbcglobal.net or go to handinhandparenting.org

3.) Facebook Pages: NeuroDevelopmental Movement with Bette Lamont; BrainNanny; What is NeuroDevelopmental Movement; NeuroDevelopmental Movement Support

Resources for Health and Social Care Professionals

NeuroDevelopmental Movement practitioners work and coordinate with Physical and Occupational Therapists, Social Workers, Attachment Therapists, Vision Therapists, Pediatricians, Naturopaths, and other health care providers.

Health care providers have often used screenings of basic neurological soft signs to tease out what may be a neurodevelopmental issue from what might be an emotional or a cognitive issue.

Any and all of the above resources can support the larger health and social care community.

Training

We encourage all health professionals to contact Bette Lamont about the availability of a Certification Training in Neurological Reorganization. The training is a 14-month program, taught in 10-day to two-week segments every quarter with significant homework and research between quarters, and students are required to participate in two years of supervision following training.

Books that discuss movement and sensory-driven neurological integration (with references to research), and recognize that recovery is possible

1.) Brain Injury, Tapping the Potential Within, an entire book on developing the brain's potential after injury it available at:

http://www.braintherapy.com.au/Brain_Injury_-_Tapping_the_Potential_Within_by_Ian_Hunter.pdf

Brain Injury is more broadly defined in this workshop than in Ian Hunter's books. Nonetheless it is an invaluable resource for anyone who wants a deeper understanding of recovery. Author Ian Hunter currently runs a recovery center in Australia.

2.) Encouraging Physical Development Through Movement Play, Carol Archer and Professor Iram Siraj, Sage Publications, London England, 2015

This book is the result of Bette Lamont's trainings in the nurseries of London, England. Carol Archer, the primary author of this material, trained in the Neurological Reorganization model as presented by Bette Lamont during several trainings in England. Carol Archer is currently a nursery supervisory in Camden, London, England

3.) Red Flags for Elementary Teachers, 27 Vision and Neurodevelopmental Issues that Interfere with Reading and What to Do About Them, by Katie Johnson, Tendril Press, 2014

This book takes the work of Neurological Reorganization into the classroom, where it has helped many students reach reading proficiency over the last 15 years. Katie Johnson has tried to retire many times, but continues to work in the schools and in the legislature in Washington State to improve learning outcomes for teachers.

4.) Brain Compatible Dance Education by Gilbert, Anne Green, published by American Alliance for Physical Health, 2006

This book, which takes Neurological Reorganization to the dance studio, is the result of a collaboration of Anne Green Gilbert with many educators and Neurodevelopmental practitioners, including Bette Lamont, and demonstrates the power of movement to help children reach their potential. Anne Green Gilbert continues to teach children's dance classes and train teachers in Brain Compatible Dance into the schools in Washington State and beyond.

5.) What to Do About Your Brain Injured Child, Glenn Doman, Better Baby Press 2006

Books to Challenge Your Assumptions

Scattered ~ Gabor Mate

Taking Back Childhood ~ Nancy Carlsson-Paige, Ed.D

Last Child in the Woods ~ Richard Louv

When Children Invite Child Abuse: A Search for Answers When Love is Not Enough ~ Svea J. Gold (Unsettling title, but a good book that considers brain development.)

Biomedical Approaches:

There is a range of doctors across the United States, some of whom work through the mail, who can help you balance your child's neurotransmitters, rid them of toxins, provide optimal nutrition, including the elimination of food sensitivities, etc. A limited list is below:

- Shawna Pulver, Tree of Life Wellness. We cannot recommend her highly enough. The seemingly miraculous recovery of her two sons,

and the recovery of many children with severe disorders that are rooted in imbalanced biochemistry are testaments to the efficacy of her work. On Facebook at: <https://www.facebook.com/TOLwellness7/>

- Dr. Deitrich Klinghardt specialized in Lyme disease and autism spectrum disorder using a unique biomedical approach. He is in Woodinville, Washington, which is 30 minutes NE of Seattle. Go to: <http://www.klinghardtacademy.com>
- Highly praised by everyone who works with her, is Dr. Anju Usman at the True Health Medical Clinic in the State of Illinois. Go to: <https://www.truehealthmedical.com/>

True Health Medical offers:

BIOMEDICAL INTERVENTIONS OFFERED AT OUR CLINIC

- **Environmental and Nutritional Advice**
- **Dietary Counseling**
- **Personalized approach to Vitamins, Minerals, Amino Acid and Fatty Acid Supplementation**
- **Detoxification Support Including Glutathione, Methylation, & Sulfation Support**
- **Mitochondrial Support**
- **Low Pressure Hyperbaric Oxygen Therapy**
- **Far Infrared Sauna**
- **Homotoxicology**
- **Enzyme Therapy**

- **Balancing Gut Flora**
- **Biofilm Treatments**
- **Lymphatic Drainage**
- **Sublingual Immunotherapy (SLIT)**

Attached to this document you will find:

- a copy of the Neurodevelopmental Profile in chart form
- a description of the vestibular activities we suggested
- a stick figure representation of the tonic neck pattern

Simple Introductory Program

While this workshop covered only a very small percentage of the tests and the interventions that might be used by a NeuroDevelopmental Movement practitioner, the activities we suggested that could be done for the child who is not in crisis* include:

- 10 minutes of tummy crawling on a smooth surface with socks off and NO corrections
- 20 minutes of hands and knees creeping on any surface, using kneepads after the age of 8, with no corrections
- 8 different vestibular activities for 15 seconds or less
- 60 tonic neck patterns.

*A child in crisis might react strongly to these activities. The vast majority of children can do these without negative consequences. These simple activities are done in dance classes, schools, nurseries and martial arts gyms with solely positive, and significant, notable results.

Conference Notes from Which We Were Working

Part 1.) Survival Trumps Learning: Exploring Gaps in the Birth to 7-month-old infant.

Let's look at the functions that can be impaired and what this implies.

- Eye contact. Oxytocin. Stress hormones. Amygdala comes in at 2.5 months. Amygdala works in opposition to the hippocampus, which supports learning and memory. If you were in a car accident.
- What interferes: screens, smart phones, texting, all of the distraction devices.
- Distance from mom – Baby's sensory development and the holding of babies. While we are on the eyes – eye tracking, reading.
- Sensory development in general – the baby has strong reactions, survival reactions to sensations. Mom moderates those sensations. Consequences of lack of contact – the roots of sensory processing disorder begin here. Anxiety in the presence of loud noises; anxiety in the heat; anxiety related to hunger or cold. The over –responsiveness of the very young infant, the life saving cries can be left unresolved and appear in older children who did not have the direct contact with a mediating caregiver or parent.
- Strong sensory– Heat (bath tub scalds)
Cold – Minneapolis winter boy
Pain – Broken soccer leg boy, girls who cut, boys who take high risks.
Adult in bar fights. Bullies. Over reactors, running into you head first; conscience.
Hunger – anorexia and simply not eating
- Motor – Crawling is the GET AWAY FROM activity. Legs begin the process of establishing gravitational security or graviception.
Astronauts experience disruption of the proprioceptive system and may lose track of where their body parts are.

- Groundedness, mental health.
- Hand function: the grasp reflex, if retained is a form of regression and protection. It tells us that the amygdala is likely dominating.

Part 2.) Social Butterflies and Bridges

What gaps in development of the 7-12 month old look like and what outcomes do they create?

Our 6 month old is a whole new person – social, curious, ambitious.

We can think of this developmental stage as the bridge between survival and cognition. Dozens to hundreds of functions that allow us to live easily in the world, interpret what is happening and create an appropriate response, begin to appear during this phase of development.

Two General Midbrain Functions:

- Social cueing
- Directing sensory input to create appropriate responses, through the thalamus

Specific Midbrain Functions:

Vision: at this level, the visual system is creating a bridge to its sensory world by filtering out what is not needed and interpreting what the brain perceives to be priority information. So, this brain is responsible for:

- Seeing detail, being curious about detail. Stranger anxiety, recognition of patterns, close examination of the environment. Seeing stable images on the page.
- Vertical Tracking
- Convergence
- Reading facial expression – as noted previously
- Interpreting figure/ground; organizational patterns; filtering out unnecessary information

Consequences of Midbrain Visual Dysfunction:

- Letters that move on the page
- Letters that change from black to grey
- Letters that change colors (and some synesthesia)
- Letters that move OFF the page
- Covering one eye when reading or writing
- Poor spelling (organization of letters may be inconsistent from one reading to the next)
- Blurry vision and visual exhaustion, red teary eyes Poor ability to read facial expressions
- Unable to see organizational patterns – relates to cleaning and organizing physical space, seeing patterns and highlights in text

Auditory Function:

At this level, the auditory system is creating a bridge to it's sensory world by filtering out what is not needed and interpreting what the brain perceives to be priority information. So, this brain is responsible for:

- Hearing tone of voice, inflexion, innuendo, sarcasm
- Filtering out excess noise

Consequences of Poor Auditory Midbrain Function:

- Not understanding directions (can't hear 'bullet points') Misinterpreting social cues
- Often the butt of jokes and teasing
- Doesn't know when to enter into conversations. Can't tolerate background noise
- Can't hear one person talking against a background of other people talking or environmental noise

Tactile Functions:

- The ability to supinate and pronate the arm, a part of fine motor skills acquisition.
- Prehensile grasp, using the whole hand to pick up items.

Consequences of Midbrain Fine Motor Function:

- Poor supination/pronation limits the development of fine motor skills.
- It is also part of our observation of how fine motor skills have integrated at this level that we are able to witness the degree to which the HPA axis is working. HPA functioning allows us to cope with stress, to multi-task and 'rise to the occasion', to deal with things well under pressure.

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