

## The Science behind . . .



by Lisa Harris

Research shows that there is a neurological relationship between movement and learning. Our bodies and brain are developed through a cycle of movement. The more we move through our natural movement patterns, the more we develop our brain.<sup>1</sup> That's why **Yoga Moves Kids™** exercises and explorations are based on 'movements that children normally make in the first several years of life, just when important connections are being formed between the developing brain and the body. Some of the simplest early patterns of movement provide the basis for the development and elaboration of highly complex learning skills.'<sup>2</sup>

The movement patterns practiced in **Yoga Moves Kids™** sessions 'create neural connections that are necessary for the control of balance, coordination, and the eye movements needed to read and write. Movement is an essential ingredient for a child's development and capacity to learn, but children of today have less movement opportunities in their daily lives than any previous generation.'<sup>3</sup>

More and more teachers are reporting an alarming number of children who are overactive and have a hard time focusing in school. Behaviors such as aggression on the playground, falling out of their seats in the classroom, lack of safety awareness, clumsiness, frustration, and anxiety. These are symptoms due in part to underdeveloped motor and sensory skills, which leave children underprepared for academics and overwhelmed by daily life and social situations.<sup>4</sup>

Another frustration that we hear from parents and educators is that it's difficult for many children to pay attention. Yet it is often forgotten or not understood, that 'in order to pay attention, a child needs to have a degree of control over the body.'<sup>5</sup> Early years that are filled with movement help to develop this control. 'The most advanced level of movement is the ability to stay totally still.'<sup>6</sup> A child who is unable to sit still and pay attention needs *more frequent* opportunities to move around and exercise the body in order to concentrate and have body control. 'Self control begins with control of the body.'<sup>7</sup>

**Yoga Moves Kids™** is strongly based on the work of *Neuro-Developmental Delay therapist*, researcher, and author of *The Well Balanced Child*, Sally Goddard Blythe. The breathing, games, movement patterns, and yoga poses practiced in each session give the child's brain a "second chance" to strengthen or re-establish any missing neural connections that have occurred during their development. 'Swiss psychologist Jean Piaget observed that a child's physical movement is the basis for cognitive, social, and emotional development. If the physical sense of balance is not developed, there is likely to be a problem with mental equilibrium too. Problems in movement correspond to delayed language development; and if sensory development is impaired, the development of intelligence is interrupted and learning is hindered.'

Unfortunately we live in a time when there is tremendous pressure for children to become literate early on in their lives. It is a time when children are being robbed of their childhood, when a significant amount of time is spent statically watching television, and when 'play' can mean sitting at a computer instead of being engaged in activities that stimulate and develop the senses of movement.'<sup>8</sup>

Hardwired into each of us at birth are our species-specific movement capacities. But, these capacities are dependent on experience and environmental opportunity. Without the opportunity to move and progress well through the early developmental stages (diaphragmatic breathing, head control, rolling, rocking, crawling or contra-lateral, midline crossing movements)<sup>9</sup> the brain is unable to fully develop the skills that are necessary for coordination and intellectual development. 'Inside your brain, there are millions of nerve connections, or nerve networks. Movement improves the communication between these connections and actually cements new connections. The better you move, the more efficient your brain becomes. Physical activity develops brain tissue!'<sup>10</sup>

**Yoga Moves Kids™** scientifically reinforces and develops the brain's critical neural pathways through stimulation of the vestibular system. The vestibular system is the most important sensory system in the body. It is the system that is involved in the feeling and production of movement. Almost all incoming information from the body is routed and filtered through the vestibular system.<sup>11</sup> It is one of the first sensory systems to mature and responds to motion and position. 'Immature vestibular functioning is frequently found amongst children who have specific learning difficulties such as Dyslexia and Dyspraxia, problems of attention, language impairment, emotional problems, and also in adults who suffer from anxiety and Panic Disorder.'<sup>12</sup>

**Yoga Moves Kids™** is an active form of *tutoring* for children's bodies that may need to *revisit* and *review* these skills. It's *Movement Tutoring!* And it gives children a fun way to move, explore, play, and develop in ways that nourish the brain, develop healthy bodies, creative minds, academic success, emotional stability and strong social skills. Let's get our kids moving and thriving with **Yoga Moves Kids™!**

<sup>1</sup> T. Anderson, *Pressing Reset: Original Strength Reloaded*, 2015.

<sup>2</sup> S. G. Blythe, *The Well Balanced Child*, 2004.

<sup>3</sup> S. G. Blythe, op. cit.

<sup>4</sup> A. J. Hanscom, *Balanced and Barefoot*, 2016.

<sup>5</sup> S. G. Blythe, op. cit.

<sup>6</sup> N. Rowe, Personal communication with Sally Goddard Blythe, 1994-5.

<sup>7</sup> Frankfurt Kindergarten Study, cited in E.J. Kaphard, 'Intervention programmes using the German psycho-motor approach with exceptional children', Paper presented at the 12th European Conference of Neuro-Developmental Delay in Children with Specific Learning Difficulties, Chester, UK, 2000.

<sup>8</sup> E. Van-Manen, Waldorf Educator, Michael Hall School, introduction *The Well Balanced Child*, 2004.

<sup>9</sup> T. Anderson, op. cit.

<sup>10</sup> C. Hanford, *Smart Moves*, 2005.

<sup>11</sup> T. Anderson, op. cit.

<sup>12</sup> P. Blythe and D. J. McGlown, *An Organic Basis for Neurosis and Educational Difficulties*, Insight Publications, Chester, 1979.