

## Kids First: Movement for Better Learning presented by Dr. John Ferguson, DC

There is a common notion in our fast-paced society that if we just start teaching children to read, write and spell in preschool, they will become better at these skills by the time they reach the first and second grades. This, however, is false. What I have learned from my experience in research and evaluating hundreds of children over the past six years is that movement forms the neurological pathways in the child that are later used for reading, writing, spelling, mathematics, focusing of attention, creative thinking and normal healthy development.

Susan Johnson, MD, a behavioral and developmental pediatrician with training in sensory-motor integration, states that “The truth is that children should be taught to read, write and spell only when their neurological pathways for doing so have fully formed.” Many neuropsychologists, developmental and occupational therapists, teachers and I are concerned that the current trend of pushing academics in preschool and kindergarten will result in an even greater increase in the number of children diagnosed with attentional problems and visual-processing types of learning disabilities. I’ll even go a step further to say that these and all children need to develop with a nerve system free of interference, to have it stimulated in a positive way and be evaluated by me in my office.

In order for children to be able to sit still, pay attention and remember abstract shapes like letters and numbers, they first need to have developed their proprioceptive system, a part of their nervous system which enables them to sense their own body’s position. The proprioceptive system is strengthened by physical movement, such as sweeping with a broom, pushing a wheelbarrow, carrying groceries, emptying the trash, pulling weeds, hanging from monkey bars and having a spine adjusted by a pediatric chiropractor such as myself. These activities stimulate pressure receptors within the muscles, tendons and joints, allowing the mind to map the location of these various pressure receptors. In this way, a child develops a sense of where her body is in space, and even if her eyes are closed, she will be able to sense the location of muscles, joints and tendons within her trunk, arms, legs, fingers and toes. When she looks at the shapes of letters and numbers, her eyes will be able to follow and track the lines and curves. The memory of these movements will then imprint upon her mind, providing them with the capacity to make mental pictures or images of those numbers or letters. She will see the correct orientation of the letter or number in her mind before she writes it.

This is amazingly cool stuff! Our current educational system is teaching children to read in a way that doesn’t make sense developmentally. Children in pre-school and kindergarten are expected to memorize letters and words before their minds have developed the necessary pathways to identify letters, easily read words, and comprehend what they are reading. We are asking these young

children to read when the only part of their brains that is developed and available for reading is the right hemisphere, which is not enough. Reading should be taught in school only after children have developed both their right brain and left brain reading centers including the corpus callosum which connects the two halves of the brain around 4-7 and 7-9 years, respectively. Only when children have developed this “bridge” (called bilateral integration) are they capable of simultaneously creating pictures and images using the right brain while the left brain phonetically figures out each word.

Here’s an example. Take little Timmy who is asked to sit still at a desk. His brain can’t “feel” where he is in space. He has to keep moving his muscles and body all the time, or sit with his feet anchored underneath him or around the legs of the chair, in order for his mind to sense his position. I have found that this child will also have difficulty balancing on one foot with eyes closed – a simple task to demonstrate proper proprioception and nerve function. These children like Timmy are often suspected of having attention deficit/hyperactivity disorder because they appear fidgety in their movements, have difficulty paying attention and have poorly developed fine motor skills. They are often labeled as having learning disabilities in visual processing (for example, dyslexia). They have difficulty recalling letters, numbers and shapes that are shown to them. They may also have difficulty remembering the orientation and direction of letters and numbers—such as confusing b with d, or writing 2’s or 3’s backward without noticing.

Why is a chiropractor educating about this topic you ask? I’ll let you in on a few well-known secrets...ones that most medical doctors would not want you to know about. Your child’s spine is her/his lifeline. Running through it is the spinal cord containing billions of nerves that send vital messages and information from the brain to every part of the body and back again. As long as none of these messages are interrupted or interfered with, your child should have optimal function and the best of health. That is normal! In fact, proprioceptive input, as mentioned above, is so vital to your body that **OVER HALF** of your entire spinal cord is comprised of nerves to deliver it to the brain!

The best way to deliver proprioceptive input to your child’s brain is through movement through proper spinal motion and alignment. If, however, there is abnormal positioning or movement of the spine (termed “Vertebral Subluxation”), interference with this “information highway” will result and the messages sent by the brain will not reach the part of the body they are intended to reach. As a result, the body begins to work improperly. This results in “malfunction.” It can be a serious threat to health and comes in many forms. Let’s see . . . poor concentration, hyperactivity, feeling exhausted without doing much, trouble falling asleep or waking up a lot throughout the night, stiffness of movement (especially in the morning), numbness and tingling in the hands or feet, chronic cough, diarrhea, constipation, wheezing, dribbling in your underwear when you cough or sneeze, ear

infections, allergies, asthma etc. If that malfunction is allowed to remain, your body will undergo a disease process – it will start to get sick and develop some sort of pathology – not a good thing!

I also wanted to make you aware that the vast majority of Vertebral Subluxations take place in childhood – most even during the process of birth. They can persist for a lifetime, slowly affecting the health and vitality of your children – his body is not functioning as it should! In my office, many birth-traumatized children need specific chiropractic adjustments to the neck or skull bones, including cranial therapy. Many times this is due to a “routine” delivery because there is tremendous stress placed on the head and neck of the baby, a C-section birth, prolonged labor, induced labor or use of vacuum extraction or forceps at delivery. These children often need a lot of specific movement exercises to strengthen bilateral integration.

Additional sources of spinal damage arise from multiple falls as a child – from a crib, tree or someone’s arms, when learning to crawl or walk, horsing around with big brother, sports injuries, auto accidents, and sitting/sleeping/standing/ using electronics with poor posture.

I have made it my mission to help as many people as I can in my lifetime – especially children. It takes a well-trained, knowledgeable and very skilled doctor to evaluate for such trauma and its effects at an early age. I am able to decipher the manifestation of reduced proprioception by analyzing newborns, infants and children. In addition, I have invested in cutting edge technology to further evaluate the function of the nerve system and muscle tone/integrity so as to objectively demonstrate the need for chiropractic care, provide for the most specific recommendations and closely monitor changes and improvements in body function over time.

You and your child need to have your central nerve system checked now. It’s a smart thing to do whether you are symptomatic or not because you need proprioception to keep your brain and body working correctly. Nothing less than the best is good enough for your health. Call me today to have an evaluation to find out how specific chiropractic care at our office can help you and your family.

Dr. John is a member of the International Chiropractic Pediatric Association ([www.icpa4kids.org](http://www.icpa4kids.org)).

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