Academic learning, social behavior, and the ability to perform daily activities are the highest expression of a hierarchy of learning that begins with the central nervous system. For some children, difficulties with communication, motor skills, or behavior actually stem from more fundamental challenges in the pyramid of learning. Helping a child reach his fullest potential often requires addressing the earlier building blocks of ability.

Virtually all brain neurons are present at birth. A child’s developmental process essentially entails the growth of dendrites, axons, and terminals to create synapses. This growth process begins in the midbrain and the medulla (the “primitive” brain) and expands to the cortex (the “thinking” brain). Sensory stimulation and experiences create more dendrites and synapses. This network of synapses serves to regulate the vast quantities of sensory information we process every moment.

Sensory Processing Disorder (SPD) means that the brain has developed in such a way that it over-responds or under-responds to sensory information. The disorder can be specific to one realm of sensory information (i.e. olfactory, sound, vestibular), or can affect multiple realms. In some severe cases, children have trouble walking when there is loud background noise, because their brain is too focused on the noise. Children who have trouble processing their own body position may hang constantly on other people, furniture, and objects – even in familiar situations. Children who have trouble processing movement may become extremely anxious when their feet leave the ground. As the illustration above demonstrates, disorders in the ability to correctly process and respond to sensory information compromises a child’s ability to progress in higher level functioning such as posture, attention, and even social skills.

Unfortunately, later problems with motor skills, attention, and behavior are often interpreted as discipline problems, psychological disorders, or neurochemical imbalances. In fact, children with a Sensory Processing Disorder respond well to specially designed activities that use sensory experiences to make new, more productive synaptic patterns (i.e. to retrain the brain). Expert pediatric therapists at Emerge – A Child’s Place can help identify specific sensory integration challenges from the bottom of the learning pyramid and work on that sensory integration while simultaneously advancing goals from higher on the pyramid. When children have a Sensory Processing Disorder, addressing the foundations of sensory integration not only helps children achieve specific objectives such as handwriting or speech, it strengthens the building blocks of learning to help children achieve even higher objectives in the future.

Please tell parents about Emerge – A Child’s Place
Believing in a Child’s Potential to Flourish