What Is Sensory Integration?

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The sensory integrative process follows a developmental sequence, which begins in the womb with the stimulation and maturation of three major sensory systems: vestibular (responds to movement and gravity), proprioceptive (muscle and joint input), and tactile (touch). At birth, these systems work closely together in an interdependent relationship to help organize the nervous system and maintain a state of equilibrium so that increasingly complex interaction with the environment and other sensory systems can occur. Children exhibit an inner drive to develop sensory integration and frequently search for opportunities to do so. Crawling, jumping, rolling, climbing, hugging, and general exploration of body movements and sensations through play provide the stimulation necessary for further integration and maturation of many processes within the child’s developing brain.

Some of the end products of sensory integration include the ability to register and modulate stimuli, motor coordination, attention, motor planning ability, balance, eye control, emotional stability, behavioral control, body scheme, and self-esteem. Adequate sensory integration also provides the foundation for the development of higher-level auditory-language and cognitive abilities. Sensory integration should be viewed along a continuum. Some people demonstrate good sensory integration, others just average, and others poor. The extent to which the lack of sensory integration interferes with overall development is important in determining sensory integrative dysfunction and the need for intervention.